

2403
MR P.E. BISHOP
DISTRICT ENGINEER
PENTICTON B C

SUBJECT: WEED AND BRUSH KILLER

REFERENCE YOUR TELETYPE APRIL 9TH, 10:40 AM ARRANGEMENTS MADE TODAY
WITH VAN WATERS & ROGERS OF CANADA LTD., P O BOX 2009, VANCOUVER 3,
B C., TO SHIP IMMEDIATELY 450 GALLONS TYPE B WEED AND BRUSH KILLER
(2-4-D PLUS 2-4-5-T) TO PENTICTON, COVERED BY CONTROL NO. 1. SHIPPING
ADVICE AND INVOICE TO YOURSELF.

FOR YOUR INFORMATION THE PURCHASE ORDER NUMBER FOR WEED KILLER IS
637031.

A .E. RHODES
COMPTROLLER OF EXPENDITURE

FILE 2403

VICTORIA
APRIL 12/65
3:49 PM
MSG RECD KAM

April 12th, 1965.

Attention: Mr. Frank Marshall

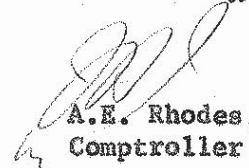
Van Waters & Rogers of Canada Ltd.,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Penticton

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, 450 gallons of weed and brush killer, Type B, (2-4-D plus 2-4-5-T), covered by Control No. 1, to the Department of Highways, Penticton, B.C. Shipping advice and invoice to Mr. P.E. Bishop, District Engineer, Department of Highways, Penticton, B.C.

Yours truly,


A.E. Rhodes,

Comptroller of Expenditure.

JAI/he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

APR 9 - 1965

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ANSWERED

DATE

MD 12/4/65

2403

PLEASE MAKE ARRANGEMENTS TO SHIP 450 GALLONS OF 2-4-D AND 245-T
WEED AND BRUSK KILL TO DEPT OF HIGHWAYS PENTICTON, B C.

P E BISHOP

DISTRICT ENGINEER PENTICTON

Ref. 615057

VanWaters & Rogers

P.O. 637301

KAMLOOPS
APRIL 9 1965
10:40 AM
MSGC CD VIC

Contest #1

1565556

[Signature]

March 17th, 1965.

Attention: Mr. Frank Marshall

Van Waters & Rogers of Canada Ltd.,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Type B Weed and Brush Killer,
Grand Forks

Confirming telephone conversation of March 16th, 1965,
please arrange to ship four 45-gallon drums, a total of 180 gallons,
of Type B weed and brush killer (2-4-D plus 2-4-5-T) to the Depart-
ment of Highways, Grand Forks, Control No. 37. Shipping advice and
invoice to Mr. H.J. Kelsall, District Engineer, Department of Highways,
Grand Forks, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAL/he

File # 2403

PROVINCE OF BRITISH COLUMBIA
DEPARTMENT OF HIGHWAYS

<p>TO:</p> <p style="text-align: center;">Mr. A. E. Rhodes, Comptroller of Expenditure, VICTORIA, B. C.</p> <p>ATTENTION:</p> <p>SUBJECT: Weed and Brush Killer</p>	<p>SENDER'S ADDRESS: Court House, Penticton, B.C.</p> <p>DATE: March 9th, 1967</p> <p>ELECTORAL DISTRICT: Similkameen-(R.#2)</p> <p>HEADQUARTERS FILE:</p> <p>REGIONAL FILE:</p> <p>DISTRICT FILE: 33-80-49</p> <p>REFERENCE: DATED:</p>
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I am forwarding herewith for your information a self-explanatory copy of a letter dated March 6th, 1967 from Later Chemicals Ltd., which I presume refers to your teletype of March 2nd, 1967 of which a copy is also enclosed.



P. E. Bishop,
District Engineer.

PF/jb

Encls.



320 LYSANDER LANE, RICHMOND, B.C. CANADA

TELEPHONE 278-9166

March 6, 1967.

Mr. P. E. Bishop,
District Engineer,
Department of Highways,
Penticton B. C.

Reference: YOUR ORDER #689159

Dear Sir:

This is to advise that we are out of
stock on 2,4-D & 2,4,5-T and will not receive
our supplies until on into May and cannot fill
this order at this time.

Yours truly,
LATER CHEMICALS LTD.

Jack Later
Jack Later
President

JL:bh

MR P E BISHOP
DISTRICT ENGINEER
PENTICTON B C

SUBJECT: WEED AND BRUSH KILLER

ARRANGEMENTS HAVE BEEN MADE WITH LATER CHEMICALS LIMITED, 320
LYSANDER LANE, RICHMOND B C TO DELIVER WEED AND BRUSH KILLER AS
DESIGNATED TO PENTICTON:

135 GALLONS, 3 - 45-GALLON DRUMS
TYPE "B" WEED AND BRUSH KILLER 2-4-D PLUS 2-4-5-T,
CONTROL NO. 19 .

THERE IS NO CHARGE AS THIS WILL BE PAID FOR THROUGH MR. M. POPE,
LANDSCAPE SUPERVISOR'S VOTE THROUGH HEADQUARTERS.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MARCH 2/67
2:25PM

OK YAM

[Handwritten signature]

*Track
Revised & return to
office
[initials]*

[Large handwritten 'R' signature]

March 9th, 1967.

Attention: Mr. Doug Carson

Van Waters & Rogers of Canada Ltd.,
 2625 Skeena Street,
 P.O. Box 2009,
 Vancouver 12, B.C.

Dear Sirs:

Re: Weed and Brush Killers,
Various Points

Confirming telephone conversation March 8th, would you kindly arrange to ship weed and brush killers to various Departments of Highways as listed below. All invoices should be submitted to Mr. M. Pope, Landscape Supervisor, Department of Highways, Victoria, B.C. Shipping advice should go to the Highways' Engineers as designated. It is understood that this material will be at the quoted price for your Regions 3 and 4.

Thank you for your co-operation.

Dept. of Highways at	Control #	Type "A" Weed Killer, 2-4-D	Type "B", Weed & Brush Killer, 2-4-D + 2-4-5-T	Shipping advice to
Rosedale	26	-	135 gal.	N.W. Wells, Dist. Supt., Chilliwack, B.C.
Salmon Arm	27	45 gal.	-	H.F. Coupe, Dist. Engineer, Salmon Arm, B.C.
Vernon	28	-	180 gal.	P.S. Dunn, Dist. Supt., Vernon, B.C.
Penticton	29	-	135 gal.	P.E. Bishop, Dist. Engineer, Penticton, B.C.
Kelowna	30	<u>45 gal.</u> <u>90 gals.</u>	<u>-</u> <u>450 gals.</u>	A.L. Freedbairn, Dist. Engineer, Kelowna, B.C.

Yours truly,

A.E. Rhodes
 A.E. Rhodes,
 Comptroller of Expenditure.

JAI/he

MR P S DUNN
DISTRICT SUPERINTENDENT
VERNON B C

2403

SUBJECT: WEED AND BRUSH KILLER

ARRANGEMENTS HAVE BEEN MADE WITH LATER CHEMICALS LIMITED, 320
LYSANDER LANE, RICHMOND, B.C., TO DELIVER WEED AND BRUSH KILLER
AS DESIGNATED TO VERNON:

180 GALLONS 4 - 45-GALLON DRUMS, TYPE "B" WEED AND BRUSH KILLER,
2-4-D PLUS 2-4-5-T, CONTROL NO.17.

THERE IS NO CHARGE AS THIS WILL BE PAID FOR THROUGH MR M POPEN
LANDSCAPE SUPERVISOR'S VOTE THROUGH HEADQUARTERS.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MARCH 2/67
2:34PM
GK KAM

MR P E BISHOP
DISTRICT ENGINEER
PENTICTON B C

2403

SUBJECT: WEED AND BRUSH KILLER

ARRANGEMENTS HAVE BEEN MADE WITH LATER CHEMICALS LIMITED, 320
LYSANDER LANE, RICHMOND B C TO DELIVER WEED AND BRUSH KILLER AS
DESIGNATED TO PENTICTON:

135 GALLONS, 3 - 45-GALLON DRUMS
TYPE "B B" WEED AND BRUSH KILLER 2-4-D PLUS 2-4-5-T,
CONTROL NO. 19 .

THERE IS NO CHARGE AS THIS WILL BE PAID FOR THROUGH MR. M. POPE,
LANDSCAPE SUPERVISOR'S VOTE THROUGH HEADQUARTERS.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MARCH 2/67
2:25 PM

GK KAM

MR A L FREEBAIRN
DISTRICT ENGINEER
KELOWNA B C

2403

SUBJECT: WEED AND BRUSH KILLER

ARRANGEMENTS HAVE BEEN MADE WITH LATER CHEMICALS LIMITED, 320
LYSANDER LANE, RICHMOND, B. C., TO DELIVER WEED AND BRUSH KILLER AS
DESIGNATED TO KELOWNA:

135 GALLONS, ONE DRUM TYPE "A" WEED KILLER, 2-4-D AND TWO DRUMS TYPE "C"
BRUSH KILLER, 2-4-5-T, CONTROL NO. 20.

THERE IS NO CHARGE AS THIS WILL BE PAID FOR THROUGH MR. M. POPE,
LANDSCAPE SUPERVISOR'S VOTE THROUGH HEADQUARTERS.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE 2403

VICTORIA
MARCH 2/67
2:22PM

GK KAM

March 2nd, 1967.

Attention: Mrs. Rose Canady

Later Chemicals Limited,
320 Lynsander Lane,
Richmond, B.C.

Dear Sirs:

Re: Weed and Brush Killers,
Various Points

Confirming telephone conversation of March 1st, would you kindly arrange to ship weed and brush killers to various Departments of Highways as listed below. All invoices should be submitted to Mr. M. Pope, Landscape Supervisor, Department of Highways, Victoria, B.C. Shipping advice should go to the Highways' Engineers as designated.

Dept. of Highways at	Type "A", Weed Killer, 2-4-D	Type "B", Weed & Brush Killer, 2-4-D + 2-4-5-T	Type "C", Brush Killer, 2-4-5-T	Shipping advice to
Nanaimo Control #10	45 gal.	-	45 gal.	J.W. Morris, Dist. Supt., Nanaimo, B.C.
Langford Control #11	-	-	150 gal.	A. Park, Dist. Supt., 280 Burnside Rd. W., Victoria, B.C.
Cloverdale Control #12	-	90 gal.	-	R.W. Gittins, Dist. Engineer, New Westminster, B.C.
Bridge District, Oak St. Yard, 970 Richmond Rd. Control #13	-	90 gal.	-	R.B. Gilmore, Bridge Dist. Supt., North Vancouver, B.C.

...2.

March 2nd, 1967.

(Cont'd)

Dept. of Highways at	Type "A", Weed Killer, 2-4-D	Type "B", Weed & Brush Killer, 2-4-D + 2-4-5-T	Type "C", Brush Killer, 2-4-5-T	Shipping advice to
Parksville Control #14	-	90 gal.	-	R.C. Hulestar, Dist. Engineer, Courtenay, B.C.
Rosedale Control #15	-	135 gal.	-	S.W. Wells, Dist. Supt., Chilliwack, B.C.
Salmon Arm Control #16	45 gal.	-	-	H.F. Coupe, Dist. Engineer, Salmon Arm, B.C.
Vernon Control #17	-	180 gal.	-	P.S. Dunn, Dist. Supt., Vernon, B.C.
Norriett Control #18	-	90 gal.	45 gal.	H.G. Holmwing, Dist. Supt., Norriett, B.C.
Penticton Control #19	-	135 gal.	-	P.E. Bishop, Dist. Engineer, Penticton, B.C.
Kelowna Control #20	45 gal.	-	90 gal.	A.L. Freebairn, Dist. Engineer, Kelowna, B.C.
Lillooet Control #21	45 gal.	-	-	J.B. Pankiv, Dist. Engineer, Lillooet, B.C.
Williams Lake Control #22	-	-	45 gal.	H.F. Blunden, Dist. Supt., Williams Lake, B.C.
TOTAL	180 gal.	310 gal.	405 gal.	

Yours truly,

A.E. Rhodes,
Comptroller of Expenditure.

JAL/he

March 1st, 1967.

Attention: Mr. Jack Cousens

Van Waters & Rogers of Canada
Ltd.,
P.O. Box 2009,
2625 Skeena Street,
Vancouver 12, B.C.

Dear Sirs:

Re: Weed and Brush Killers, various
B.C. Points

Confirming telephone conversation, today's date, kindly ship the following weed and brush killers, Type "B" weed and brush killer, 2-4-5-T plus 2-4-D or Type "C", brush killer, 2-4-5-T to the Department of Highways at the following points as soon as possible.

225 gallons, five drums, Type "C" to Fernie, Control No. 18. Shipping advice to A.S. Stalte, District Superintendent, Dept. of Highways, Fernie, B.C.

45 gallons, one drum, Type "C" to Cranbrook, Control No. 19. Shipping advice to G.K. Austin, District Superintendent, Dept. of Highways, Cranbrook, B.C.

45 gallons, one drum, Type "C" to Nelson, Control No. 20. Shipping advice to M. Harlo, District Engineer, Department of Highways, Nelson, B.C.

225 gallons, five drums, Type "C" to New Denver, Control No. 21. Shipping advice to D.C. Westaway, District Superintendent, Dept. of Highways, New Denver, B.C.

90 gallons, two drums, Type "B" to Quesnel, Control No. 22. Shipping advice to G.W. Harper, District Superintendent, Department of Highways, Quesnel, B.C.

...2.

March 1st, 1967

45 gallons, one drum, Type "B" to Vanderhoof,
Control No. 23. Shipping advice to G.E. Kent,
District Superintendent, Dept. of Highways,
Vanderhoof, B.C.

90 gallons, two drums, Type "B" to Smithers,
Control No. 24. Shipping advice to S.J. Sviatko,
District Superintendent, Dept. of Highways,
Smithers, B.C.

45 gallons, one drum, Type "B" to Prince Rupert,
Control No. 25. Shipping advice to Mr. E.A. Lund,
District Engineer, Dept. of Highways, Prince
Rupert, B.C.

In all the above the invoices are to be mailed to Mr. H.
Pope, Landscape Supervisor, Department of Highways, Parliament Buildings,
Victoria, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI/na

MR D C WESTAWAY
DISTRICT SUPERINTENDENT
NEW DENVER B C

2403

SUBJECT: WEED AND BRUSH KILLERS - 2-4-5-T

ARRANGEMENTS MADE TODAY WITH VAN WATERS & ROGERS OF CANADA LTD.,
2625 SKEENA ST., VANCOUVER 12, B.C., TO SHIP 225 GALLONS FIVE DRUMS
TYPE "C" BRUSH KILLER TO NEW DENVER CONTROL NO. 21. SHIPPING ADVICE
TO YOURSELF AND INVOICE TO BE PAID AT HEADQUARTERS BY M. POPE,
LANDSCAPE SUPERVISOR.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MARCH 1/67
ZL 2:33PM

MSG RCD NEL

MR. M. MERLO
DISTRICT ENGINEER
NELSON B C

2403

SUBJECT: WEED AND BRUSH KILLERS - 2-4-5-T

ARRANGEMENTS MADE TODAY WITH VAN WATERS & ROGERS OF CANADA LTD., 2625
SKEENA ST., VANCOUVER 12, B.C., TO SHIP 45 GALONS ONE DRUM TYPE "C"
BRUSH KILLER TO NELSON, CONTROL NO. 20. SHIPPING ADVICE TO YOURSELF
AND INVOICE TO BE PAID AT HEADQUARTERS BY M. POPE LANDSCAPE SUPERVISOR

A E RHODES
COMPTROLLER OF EXPENSEITURE

FILE # 2403

VICTORIA
MARCH 1/67
2:31PM

OK NEL

2403

MR G K AUSTIN
DISTRICT SUPERINTENDENT
CRANBROOK B C

SUBJECT: WEED AND BRUSH KILLERS - 2-4-5-T

ARRANGEMENTS MADE TODAY WITH VAN WATERS & ROGERS OF CANADA LTD., 2625
SKEENA STREET, VANCOUVER 12, B C TO SHIP 45 GALLONS, ONE DRUM, TYPE
"C" BRUSH KILLER TO CRANBROOK CONTROL NO. 19. SHIPPING ADVICE TO
YOURSELF AND INVOICE TO BE PAID AT HEADQUARTERS BY M. POPE, LANDSCAPE
SUPERVISOR.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MARCH 1/67
2:30PM

MSGE RCD CRANBROOK
AYCDCD

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA B. C.

FEB 16 1967

20503
/

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ANSWERED
NOTED
DATE 16/2/67

ATTENTION: J A INGRAM

FURTHER TO MY TELETYPE OF 9:33 AM TODAY - PLEASE AMEND
ITEM (2) TO READ :
2 DRUMS (90 GAL.) WEED KILLER TYPE "C" 2-4-5T.

W I N HIGGINS
REGIONAL OFFICE MANAGER

NELSON
FEB 16/67
11:50 AM

MSGE RECD VIC

45432

comp

MR P E BISHOP
DISTRICT ENGINEER
PENTICTON B C

2403

SUBJECT: TYPE "B" WEED & BRUSH KILLER, PENTICTON

REFERENCE YOUR TELETYPE JULY 29TH, 1966, 11:31 AM., ARRANGEMENTS
MADE JULY 29TH WITH LATER CHEMICALS LIMITED 320 LYSANDER LANE,
RICHMOND, B.C., TO SHIP TWO X 45-GALLON DRUMS OF TYPE "B" WEED AND
BRUSH KILLER, 2-4-5T PLUS 2-4-D, TO THE DEPT OF HIGHWAYS'S GARAGE,
PENTICTON, B.C. THE FIRM WILL ADVISE YOU DIRECT OF POSSIBLE
ARRIVAL DATE. CONTROL #8.

A E RHODES
COMPTROLLER OF EXPENDITURE.

FILE # 2403

VICTORIA
AUGUST 1/66
4:38PM
OK KAM

August 1st, 1966.

Attention: Mrs. R. Cassidy

Later Chemicals Limited,
320 Lysander Lane,
Richmond, B.C.

Dear Sirs:

Re: Type "B" Weed and Brush
Killer, Penticton, B.C.

Confirming telephone conversation with Mr. J.D. McKinnell, July 29th, 1966, will you kindly arrange to ship two 45-gallon drums of Type "B" weed and brush killer, 2-4-5T and 2-4-D, to the Department of Highways' Garage, Penticton, B.C., Control No. 8. Shipping advice and invoice to Mr. P.E. Bishop, District Engineer, Department of Highways, Penticton, B.C.

Yours truly,

A.E. Rhodes,
Comptroller of Expenditure.

JDMCK/he

July 26th, 1966.

Attention: Mr. J. Cousens

Van Waters & Rogers of Canada
Ltd.,
2625 Skeena Street,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Type "B" Wead Killer,
Athelmer, B.C.

Confirming telephone conversation with Mr. J.D. McKinnell, July 25th, will you kindly arrange to ship, via C.P.R., four 45-gallon drums of 2-4-D, 2-4-5-T weed and brush killer (Type "B") to the Department of Highways, Athelmer, B.C., Control No. 14. Shipping advice and invoice to Mr. W.I.N. Higgins, Regional Office Manager, Department of Highways, Nelson, B.C.

Yours truly,

JDMcK/he

A.E. Rhodes,
Comptroller of Expenditure.

MR W I N HIGGINS
REGIONAL OFFICE MGP
NELSON B C

2-103

SUBJECT: TYPE "B" WEED AND BRUSH KILLER, ATHALMER, B.C.

REFERENCE YOUR TELETYPE JULY 25TH, 1966 2:28PM., ARRANGEMENTS MADE
JULY 25TH WITH VAN WATERS & ROGERS OF CANADA LTD., 2625 SKEENA
STREET, VANCOUVER 3, B.C., TO SHIP FOUR 45-GALLON DRUMS OF 2-4-D,
2-4-5-T WEED AND BRUSH KILLER (TYPE "B") VIA CPP TO ATHALMER B C
THE FIRM WILL ADVISE YOU DIRECT OF POSSIBLE ARRIVAL DATE.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
JULY 26/66
9:42AM
OK JEL

June 14th, 1966.

Attention: Mr. J. Cousens

Van Waters & Rogers of Canada
Ltd.,
2625 Skeena Street,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Dept. of Highways,
Cranbrook

Confirming telephone conversation, today's date, please
arrange to ship the following to Cranbrook:

One 45-gallon drum of Type "A" weed killer, 2-4-D.

Two 45-gallon drums of Type "B" weed and brush
killer, 2-4-D plus 2-4-5-T.

The whole covered by Control No. 12. Shipping advice and
invoice to Mr. G.K. Austin, District Superintendent, Department of
Highways, Cranbrook, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

June 9th, 1966.

Attention: Mr. Jack Cousins

Van Waters & Rogers of Canada Ltd.,
2625 Skeena Street,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Type "C" Brush Killer,
Rossland and Burns Lake.

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, four 45-gallon drums (180 gallons) of Type "C" brush killer, (2-4-5-T) to the Department of Highways, Rossland, B.C., Control No. 10. Shipping advice and invoice to the District Superintendent, Department of Highways, Rossland, B.C.

Also, please arrange to ship six 45-gallon drums (270 gallons) of Type "B" weed and brush killer (2-4-D plus 2-4-3-T) to the Department of Highways, Burns Lake, Control No. 11. Shipping advice and invoice to Mr. P.S. Dunn, District Superintendent, Department of Highways, Burns Lake, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

2403 ✓

MR W I N HIGGINS
REG OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

SUBJECT: BRUSH KILLER, TYPE "C", ROSSLAND

REFERENCE YOUR TELETYPE JUNE 9TH, 11:16 P-AM, YOUR FILE P3-80-49,
ARRANGEMENTS MADE TODAY WITH VAN VATER'S AND ROGERS OF CANADA LTD.,
2625 SKEENA STREET, VANCOUVER 3, B.C., TO SHIP 180 GALLONS
(4 45-GALLON DRUMS) OF TYPE "C" BRUSH KILLER (2-4-5-T) TO ROSSLAND,
CONTROL NO. 10. SHIPPING ADVICE AND INVOICE TO DISTRICT SUPERINTENDENT
ROSSLAND.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE: 2403

VICTORIA
JUNE 9/66
3:55 PM
MSG RCD MEL

GVGOAY

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

MS
9/6/66.

File 5403

ATTENTION: J A INGRAM

KINDLY ARRANGE SHIPMENT OF 4 ONLY 45 GALLON DRUMS (180) GAL.

OF BRUSH KILLER 2-4-5-T TO THE DEPT OF HIGHWAYS, ROSSLAND B C .

W I W HIGGINS
REGIONAL OFFICE MANAGER

O F A3-8C-49

Control # 10

NELSON
JUNE 9/66
11:16 AM
MSGD RECD VIC

May 19th, 1966.

Attention: Mr. Jack Cousens

Van Waters & Rogers of Canada Ltd.,
2625 Skeena Street,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Cranbrook

Confirming telephone conversation of May 18th, please
arrange to ship the following to the Department of Highways,
Cranbrook, B.C.:

- 1 - 45-gallon drum Type "A" weed killer (2-4-D)
- 2 - 45-gallon drums Type "B" brush killer
(2-4-D plus 2-4-5-T)
- 1 - 45-gallon drum Type "C" brush killer (2-4-5-T)

All the above covered by Control No. 7. Shipping advice
and invoice to Mr. G.K. Austin, District Superintendent, Department
of Highways, Cranbrook, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI/ha

May 19th, 1966.

Attention: Mr. Jack Cousens

Van Waters & Rogers of Canada Ltd.,
2625 Skeena Street,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Rossland

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, 90 gallons, two 45-gallon drums, Type "B" weed and brush killer to the Department of Highways, Rossland, B.C., Control No. 8. (2-4-D plus 2-4-5-T). Shipping advice and invoice to Mr. A.E. Staite, District Superintendent, Department of Highways, Rossland, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

MR W I N HIGGINS
REGIONAL OFFICE MGR
NELSON B C

2/03

SUBJECT: WEED AND BRUSH KILLER, ROSSLAND

REFERENCE YOUR TELETYPE MAY 19TH 10:20 AM., YOUR FILE R3-80-49,
ARRANGEMENTS MADE TODAY WITH VAN WATERS & ROGERS OF CANADA LTD.,
2625 SKEENA ST VANCOUVER 2 3 B C TO SHIP IMMEDIATELY TWO 45-
GALLON DRUMS TYPE "B" WEED AND BRUSH KILLER (2-4-D PLUS 2-4-5-T)
TO ROSSLAND COVERED BY CONTROL NO. 8. SHIPPING ADVICE AND INVOICE
DIRECT TO MR A E STAITE.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MAY 19/66
1:37PM
OK NEL

2403
MR W I N HIGGINS
REGIONAL OFFICE MGR
NELSON B C

SUBJECT: WEED AND BRUSH KILLER, CRANBROOK

REFERENCE YOUR TELETYPE MAY 18TH 3:04 PM., YOUR FILE R3-80-49,
ARRANGEMENTS MADE MAY 18TH WITH VAN WATERS & (ROGERS OF CANADA LTD.,
2625 SKEENA STREET VANCOUVER 3, B C TO SHIP FOUR DRUMS OF WEED
AND BRUSH KILLER AS FOLLOWS:

- 1 - 45-GALLON~~NG~~ DRUM TYPE "A" (2-4-D) WEED KILLER
- 2 - 45-GALLON DRUMS TYPE "B" WEED AND BRUSH KILLER
(2-4-D PLUS ~~3~~ ~~2~~ 2-4-5-T)
- 1 - 45-GALLON DRUM TYPE "C" BRUSH KILLER, (2-4-5-T)

ALL UNDER CONTROL NO. 7. SHIPPING ADVICE AND INVOICE TO MR G K
AUSTIN.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE 2403

VICTORIA
MAY 19/66
10:07AM
MSG RCD NEL

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 5 - 1966

R A E RHODES
COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ANSWERED _____
NOTED _____
DATE 6/5/66

24/03

M

ATTN J A INGRAM

WEED AND BRUSH KILLER.

PLEASE ARRANGE FOR IMMEDIATE SHIPMENT TO MERRITT OF 2-45 GAL DRUMS
TYPE "A" 2-4-D AND ONE 45 GAL DRUM TYPE "C" 2-4-5-T.

R W VEITCH
DISTRICT SUPT MERRITT

KAMLOOPS
MAY 5 1966
3:49 PM
MGE RCD VICT

15005

Completed

2403

MR D C WESTAWAY
DISTRICT SUPERINTENDENT
NEW DENVER B C

SUBJECT# TYPE "B" WEED AND BRUSH KILLER

REFERENCE YOUR TELETYPE MAY 3RD 11:00 AM., ARRANGEMENTS MADE MAY 3RD
WITH VAN WATERS AND ROGERS OF CANADA LTD., 2625 SKEENA STREET, VANC-
OUVER 3, B C TO SHIP 450 GALLONS (10 DRUMS) OF TYPE "B" WEED AND
BRUSH KILLER (2-4-D PLUS 2-4-5-T) COVERED BY CONTROL NO. 2.
SHIPPING ADVICE AND INVOICE DIRECT TO YOURSELF.

A E RHODEQ
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MAY 4/66
9:48AM
OK NEL

May 4th, 1966.

Attention: Mr. Jack Cousens

Van Waters & Rogers of Canada
Ltd.,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Type "B" Weed and Brush
Killer, New Denver

Confirming telephone conversation of May 3rd, please arrange to ship, as soon as possible, 450 gallons (10 drums) of Type "B" weed and brush killer (2-4-D plus 2-4-5-T) to the Department of Highways, New Denver, B.C., Control No. 2. Shipping advice and invoice to Mr. D.C. Westaway, District Superintendent, Department of Highways, New Denver, B.C.

Yours truly,

JAL/he


A.E. Rhodes,
Comptroller of Expenditure.

MEMORANDUM

2403

TO..... Mr. J. A. Dennison,
Senior Maintenance Engineer,
Department of Highways.

FROM..... Landscape Supervisor,
Department of Highways.

March 3..... 1966

SUBJECT..... B. C. Telephone Co. Manual,
Sections dealing with Brush Control.

OUR FILE..... 2403

YOUR FILE.....

Attached is Section 620-600-900 B.C. of the B. C. Telephone Co. Manual sent to this office for comment.

The only sections which would be questioned as far as the Department of Highways is concerned would be 6.01, 6.02 and 7.02, dealing with height of brush and intervals between sprays.

We would prefer to see Section 6.01 specify that brush over 3 to 4 feet should first be cleared, rather than 6 to 8 feet.

In Section 6.02, in areas of high traffic density brush over 2 feet high should be cleared before spraying, rather than 3 to 4 feet as specified.

Similarly, in Section 7.02, respraying in areas in public view should be done before the brush reaches the 2 foot height, and 3 to 4 feet in areas not in public view.

Michael Pope
Michael Pope,
Landscape Supervisor.

MP/jc
Encl.

7438

SR. MAINTENANCE ENGR.

BRUSH CONTROL
CHEMICAL SPRAYS ON POLE LINES

1. GENERAL

1.01 This practice is issued to give direction on the methods to be followed in the use of chemical spray for brush control on pole leads.

1.02 The normal method of application will be by stem-foliage spray. In this method, the stems and foliage of the brush are thoroughly wetted to a point just short of run-off.

1.03 Because of the specialized equipment required, application of these chemicals to pole leads and other rights-of-way should be made by a reputable contractor experienced in brush control work.

1.04 Complete removal of vegetation by the use of soil sterilants should be restricted to Company property such as pole and cable storage yards, work areas, etc. This type of treatment on rights-of-way not only leads to problems with erosion, but invites adverse public reaction. On pole leads the aim should be to encourage a thick grass sod, which will in itself tend to inhibit the sprouting of air-borne seeds, rather than to expose the bare soil through complete sterilization.

2. MATERIALS

2.01 Materials used will depend upon the type of brush present and the locality of the right-of-way. These will usually be the commercial brushkilling chemicals such as 2-4-D and 2-4-5-T, or a mixture of both. The most commonly used is a mixture of both chemicals, which is effective against a wider range

of species than either chemical used alone. Other suitable chemicals, as developed and tested, will be added to this practice from time to time. Any chemical used should not interfere with the growth of grasses.

2.02 When spraying is done by a contractor, the contractor's recommendations as to chemicals to be used, shall, if they differ from the approved chemicals named in this practice, be referred to the General Outside Plant Engineer for approval.

2.03 Any chemical used shall preferably be of low volatility to minimize the possibility of damage to adjoining vegetation due to the drift of vapour.

3. PERMISSIONS

3.01 It will be the responsibility of the Company's representatives to ensure that the Contractor obtains all necessary permits, as noted below, before any spraying is commenced.

3.02 Before spraying on any rights-of-way, permission must be obtained from the following Provincial Government Departments.

Department of Agriculture
Department of Water Rights and Resources
Department of Recreation and Conservation, Fish and Game Branch

3.03 When spraying is planned along a public road right-of-way, permission must be obtained from the Provincial Department of Highways, or from the Municipal Engineering Department, de-

pending upon which has jurisdiction.

3.04 Where the right-of-way runs through Crown land, permission for spraying shall be obtained from the Department of Lands and Forests, Forest Service Branch, and all instructions from them shall be observed. Where rights-of-way run across privately owned property, the permission of the property owner must be obtained.

3.05 As a matter of policy, the Public Health Officer for the district should be notified before spraying commences.

4. REPORTS

4.01 The contractor shall submit, to the Company's representative, two copies of a report for each area sprayed, showing:

1. Date of application of chemical.
2. The average temperature during application.
3. The chemical(s) used.
4. Concentration of chemical in spray (ounces per gallon of carrier).
5. The amount of spray applied per unit area (gallons per thousand square feet or acre).

One copy of this report shall be retained by the Division, and the second copy shall be sent to the General Outside Plant Engineer. As these reports will be used to build a record of the effectiveness of the various chemicals in each area, and to act as a check on future contracts, the Company representative shall arrange to keep a record of the effectiveness of the spray (percentage of kill) and to furnish a copy of this information to the General Outside Plant Engineering Department.

5. SUSCEPTIBLE CROPS AND VEGETATION

5.01 It will be the responsibility of the contractor to determine, before spraying, the proximity of susceptible crops or vegetation to the proposed spray route, and to take all necessary steps to avoid all damage to such crops or vegetation.

5.02 The contractor shall carry adequate insurance against damage to adjoining crops and/or vegetation, and in the event of such damage, or claims of damage, shall settle all such claims to the satisfaction of the Company's representative.

5.03 If spraying is to be done adjacent to commercial gardens, nurseries, etc., the permission of the owners of such property shall be obtained prior to spraying. If such permission is denied, the right-of-way in this area should be brushed only.

6. HEIGHTS OF BRUSH

6.01 Generally, to avoid adverse public reaction and to allow access in the immediate future, rights-of-way with brush over 6-8 feet in height should first be cleared, and have the slash chipped or burned. The new growth on the right-of-way should then be sprayed the following year while in full leaf, but before the onset of hot weather toughens the foliage and stems. Generally this will be in May or June, although the exact time will vary with the location of the individual right-of-way. This will ensure that the dead brush is not too noticeable, and will not be a problem to maintenance forces.

6.02 In areas of high traffic density (along main highways, in tourist areas, etc.) brush over 3-4 feet high should be cleared prior to spraying so as to keep the dead brush as inconspicuous as possible.

6.03 In no case shall brush over 6-8 feet high be sprayed and left standing where it will create an unpleasant impression on the public.

6.04 Where intense public reaction to any spraying is met, or is expected to be met, consideration should be given to treating the cut stumps when brushing, or to basal spraying during the dormant season. While these methods are more expensive than foliage spraying, they will avoid the problem of having the brush turn brown during the growing season, and so will be much less noticeable to the public. Basal spraying consists of spraying the lower stems and root collar with the chemical, usually in an oil carrier, and can be done during the winter months, as long as the plants are not ice covered, or the snow is not more than 6 inches deep.

7. INTERVALS BETWEEN SPRAYS

7.01 Spray treatment of brush must be followed up if the initial gain is not to be lost. The intervals at which a right-of-way should be sprayed will depend upon the speed of regrowth, which in turn will depend upon local conditions of rainfall, temperature etc.

7.02 Re-spraying should take place when the regrowth is not more than 3-4 feet high where the right-of-way is in view of the public. On rights-of-way not exposed to the public view, the brush should not be allowed to grow more than 6-8 feet in height. Brush higher than this will, even when dead, make access to the right-of-way difficult.

7.03 As experience is the only way of determining the proper frequency of spraying, spray areas should be checked at least annually until the proper interval can be determined. Once a right-of-way has been well cleared by the spray, periodic spot spraying should suffice to keep it clear without the necessity of over-all sprays.

8. AVOIDING DOMESTIC WATER SUPPLIES

8.01 Although the check with the Water Rights Department will give the location of all registered water rights in the area, there may well be unregistered domestic water supplies in rural areas. For this reason, no spraying should be done within 100 feet of any lake or of any running water.

9. TOXICITY OF CHEMICALS

9.01 2-4D and 2-4-5-T, in the concentrations used for brush control, are not poisonous to either humans or to animals. Any new chemicals which may be recommended by the contractor should be referred to the General Outside Plant Engineer for approval before use.

April 19th, 1966.

Attention: Mrs. Rose Cassidy

Later Chemicals Limited,
320 Lysander Lane,
Richmond, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Salmon Arm, B.C.

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, 135 gallons (3 - 45 gallon drums) of Type "B" weed and brush killer, 2-4-D plus 2-4-5-T, to the Department of Highways, Salmon Arm, B.C., covered by Control No. 1. Shipping advice and invoice to Mr. H.F. Coupe, District Engineer, Provincial Department of Highways, Box 759, Salmon Arm, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

April 19th, 1966.

Attention: Mrs. Rose Cassidy

Later Chemicals Limited,
320 Lysander Lane,
Richmond, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Salmon Arm, B.C.

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, 135 gallons (3 - 45 gallon drums) of Type "B" weed and brush killer, 2-4-D plus 2-4-5-T, to the Department of Highways, Salmon Arm, B.C., covered by Control No. 1. Shipping advice and invoice to Mr. H.F. Coupe, District Engineer, Provincial Department of Highways, Box 759, Salmon Arm, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

MR H F COUPE
DISTRICT ENGINEER
SALMON ARM B C

2403

SUBJECT: WEED AND BRUSH KILLER AND SIMAZINE

REFERENCE YOUR LETTER APRIL 14TH 1966, ARRANGEMENTS MADE TODAY WITH
LATER CHEMICALS LIMITED, 320 LYSANDER LANE, RICHMOND, B.C., TO SHIP
135 GALLONS (3 - 45 GALLON DRUMS) TYPE "B" WEED AND BRUSH KILLER,
2-4-D PLUS 2-4-5-T, COVERED BY CONTROL NO. 1 SHIPPING ADVICE AND
INVOICE DIRECT TO YOURSELF.

THE PURCHASE ORDER FOR SIMAZINE HAS NOT BEEN ISSUED AS YET BUT IT IS
HOPED TO HAVE THIS OUT IN THE IMMEDIATE FUTURE AND YOUR SHIPMENT WILL
BE MADE AS QUICKLY AS POSSIBLE.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE: 2403

VICTORIA
APRIL 19/6
1966 83
1:28PM
OK KAM

PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF HIGHWAYS

2403

TO: Department of Highways,
Parliament Buildings,
Victoria, B.C.

SENDER'S ADDRESS: Box 759 Salmon Arm, B.C.

DATE: April 14th, 1966

ELECTORAL DISTRICT: Salmon Arm (R.#2)

HEADQUARTERS FILE:

ATTENTION: Comptroller of Expenditure

REGIONAL FILE:

SUBJECT:

DISTRICT FILE: 32-80-49

Weed and Brush Killers

REFERENCE:

DATED:

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

MD
20/4/66

Please arrange for immediate delivery

to Salmon Arm of the following:

1. Six 50 lbs. drums Simazine Soil Sterilant
2. Three 45 gallon drums 2-4-D plus 2-45-T, 32 oz. plus 32 oz.

Cont #2

reed

Region 2

HFC/ar

cc: Regional Highway Engineer

H. F. Coupe
H. F. Coupe,
District Engineer.

12818

PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF HIGHWAYS

TO: Mr. J.A. Dennison, Senior Maintenance Engineer, Department of Highways, VICTORIA, B.C.	SENDER'S ADDRESS: Regional Highway Engineer, 101 Baker Street, Nelson, B.C.
ATTENTION:	DATE: October 14, 1965
SUBJECT: WEED AND BRUSH CONTROL	ELECTORAL DISTRICT: Region #3
	HEADQUARTERS FILE:
	REGIONAL FILE: R3-21-93
	DISTRICT FILE:
	REFERENCE: DATED: Your Letter of September 17, 1965

Spraying in Region #3 is carried out by the individual District using their own personnel and equipment. Available equipment is as follows.

Golden	-	homemade 1000 gallon unit.
Cranbrook	-	300 gallon Kromer unit.
Fernie	-	800 gallon John Bean sprayer.
Nelson	-	300 gallon Kromer Deluxe sprayer.
Rossland	-	1000 gallon John Bean Royal sprayer.
New Denver	-	1000 gallon homemade unit.
Grand Forks	-	300 gallon Kromer sprayer.

The following quantities of chemicals have been used by the various Districts over the past three years.

	24D	245T	245T & 24D	Simazine	Atrozone
<u>COLUMBIA</u>					
1963-64	-	90 gal.	-	-	-
1964-65	-	90 gal.	-	2000 lbs.	-
1965-66	-	500 gal.	-	2500 lbs.	500 lbs.
<u>CRANBROOK</u>					
1963-64	-	-	-	500 lbs.	-
1964-65	90 gal.	90 gal.	-	3600 lbs.	-
1965-66	45 gal.	45 gal.	180 gal.	4700 lbs.	-
<u>FERNIE</u>					
1963-64	205 gal.	105 gal.	-	1500 lbs.	-
1964-65	-	-	150 gal.	500 lbs.	-
1965-66	-	-	-	-	-
<u>NELSON-CRESTON</u>					
1963-64	-	-	-	1000 lbs.	-
1964-65	-	-	315 gal.	2000 lbs.	-
1965-66	-	-	-	-	-

1588609

PROVINCE OF BRITISH COLUMBIA
DEPARTMENT OF HIGHWAYS


TO:	SENDER'S ADDRESS:
	DATE:
	ELECTORAL DISTRICT:
ATTENTION:	HEADQUARTERS FILE:
	REGIONAL FILE:
SUBJECT:	DISTRICT FILE:
	REFERENCE: DATED:

- 2 -

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

	24D	245T	245T & 24D	Simazine	Atrozone
<u>ROSSLAND- TRAIL</u>					
1963-64	-	-	25 gal.	150 lbs.	-
1964-65	-	-	70 gal.	300 lbs.	-
1965-66					
<u>KASLO- SLOGAN</u>					
1963-64	-	-	450 gal.	-	-
1964-65	-	-	646 gal.	-	-
1965-66	-	220 gal.	450 gal.	-	-
<u>GRAND FORKS- GREENWOOD</u>					
1963-64	-	-	100 gal.	-	100 lbs.
1964-65	-	-	270 gal.	500 lbs.	-
1965-66					

Figures have been included for the 1965-66 fiscal year for those Districts that have completed their programmes.


W.M. Sproul,
Regional Maintenance Engineer.

WMS/db

August 2, 1965.

Van Waters & Rogers of Canada Ltd.,
2625 Skeena St.,
P.O. Box 2009,
Vancouver 3, B. C.


Attention: Frank Marshall

Dear Sir:

Re: Type C - Brush Killer - Pemberton

Confirming telephone conversation today's date,
please arrange to ship as soon as possible, five gallons
type C, brush killer (2-4-5T) to Department of Highways,
Pemberton, B. C. Shipping advice and invoice to Mr. P.
Large, District Engineer, Department of Highways, Lillooet.
This order is covered by Control #16.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI/dv

COMPTROLLER OF EXPENDITURE
DEPARTMENT OF HIGHWAYS
VICTORIA B C

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

JUL 9 1965

ATTN: J A INGRAM

SUBJECT: WEED AND BRUSH KILLER

ANSWERED

NOTED

FILED

MD
9/2/65

2403

PLEASE HAVE SHIPPED TO CRANBROOK AS SOON AS POSSIBLE 1 ONLY
45 GALLON DRUM, TYPE "B" WEED AND BRUSH KILLER, 2-4-D PLUS
2-4-5T.

W I N HIGGINS
REGIONAL OFFIE MANAGER
NELSON

*Control
F/S*

JULY 9/65
3:01PM
MSGC RCD VICT

1576392

Compt

July 9th, 1965.

Attention: Mr. Jack Cousens

Van Waters & Rogers of Canada Ltd.,
2625 Skeena Street,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Type B Weed and Brush Killer,
Cranbrook

Confirming telephone conversation, today's date, please arrange to ship one 45-gallon drum of Type B weed and brush killer (2-4-D plus 2-4-3-T) to the Department of Highways, Cranbrook, covered by Control No. 15. Shipping advice and invoice to Mr. G.K. Austin, District Superintendent, Provincial Department of Highways, Cranbrook, B.C.

Yours truly,


M.E. Rhodes,
Comptroller of Expenditure.

JAI/he

REGIONAL HWY ENGINEER
NELSON B C

2403

ATTN: W I N HIGGINS REG OFFICE MGR

SUBJECT: TYPE B, WEED AND BRUSH KILLER CRANBROOK

REFERENCE YOUR TELETYPE JUNE 20TH 11:59 AM YOUR FILE R3-90-49

ARRANGEMENTS MADE TODAY WITH VAN WATERS AND ROGERS OF CANADA LTD
P O BOX 2009, VANCOUVER 3, B C TO SHIP 90 GALLONS (2 - 45 GALLON
DRUMS) OF TYPE B (2-4-D PLUS 2-4-5-T) WEED AND BRUSH KILLER TO
CRANBROOK CONTROL NO. 11. SHIPPING ADVICE AND INVOICE TO MR G K
AUSTIN.

A E RYODES
COMPTROLLER OF EXPENDITURE

FILE: 2403

VICTORIA
JUNE 30/65
4:42PM
MSG RCD NEL

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

JUN 30 1965

ANSWERED

NOTED

DATE

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ATTENTION: J A INGRAM

SUBJECT: WEED AND BRUSH KILLER

PLEASE ARRANGE FOR SHIPMENT TO CRANBROOK AS SOON AS POSSIBLE
2 ONLY 45 GALLON DRUMS OF TYPE "B" WEED AND BRUSH KILLER
2-4-D PLUS 245T.

Control #11

W I N HIGGINS
REGIONAL OFFICE MANAGER

NEKXBNXX
O F R3-80-49

NELSON
JUNE 30/65
11:59 AM
MSGC RECD VIC

1575276

June 30th, 1965.

Attention: Mr. Jack Cousens

Van Waters & Rogers of Canada Ltd.,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:

Re: Type B, Weed and Brush Kill,
Cranbrook

Confirming telephone conversation, today's date, please arrange to ship 90 gallons (2 - 45-gallon drums) Type B weed and brush killer (2-4-D plus 2-4-5-T) to the Department of Highways, Cranbrook, B.C., Control No. 11. Shipping advice and invoice to Mr. G.K. Austin, District Superintendent, Department of Highways, Cranbrook, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

May 10th, 1965.

Attention: Mr. Frank Marshall

Van Waters & Rogers of Canada Ltd.,
P.O. Box 2009,
Vancouver 3, B.C.

Dear Sirs:


Re: Weed and Brush Kill, Cranbrook

Confirming telephone conversation, today's date, please arrange to ship 180 gallons of weed and brush kill to the Department of Highways, Cranbrook, as follows:

- 1 - 45 gallon drum Type A, 2-4-D Weed Kill
- 2 - 45 gallon drums Type B, Weed and Brush Kill,
2-4-D plus 2-4-5-T
- 1 - 45 gallon drum Type C, Brush Kill, 2-4-5-T

The above is covered by Control No. 3. Shipping advice and invoice to Mr. G.K. Austin, District Superintendent, Department of Highways, Cranbrook, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 10 1965

ANSWERED *MD*
NOTED *MD*
DATE *10/5/65*

2/10/3

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ATTENTION: J A INGRAM

KINDLY ARRANGE TO HAVE SHIPPED AS SOON AS POSSIBLE, THE
FOLLOWING TO CRANBROOK:

1. ONE ONLY 45 GAL. BARREL WEED SPRAY TYPE A, 2-4-D
2. TWO ONLY 45 GAL. BARRELS TYPE B WEED AND BRUSH KILLER
2-4-D PLUS 2-4-5-T
3. ONE ONLY 45 GAL. BARREL TYPE C BRUSH KILLER 2-4-5-T

W I N HIGGINS
REGIONAL OFFICE MANAGER

O F R3-80-49

Cy. K. Austin
Dist. Supt.
Control #3

NELSON
MAY 10/65
11:09 AM
MXGE RCD VIC

1568968

[Signature]

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

*noted
AD
3/6/69*

File 2403

ATTENTION - MR J A INGRAM

PLEASE ARRANGE 1 ONLY 45 GALLON DRUM 2-4-D TYPE A WEED SPRAY FOR
SHIPMENT TO CRANBROOK. SHIPPING ADVICE AND INVOICE TO DISTRICT
SUPERINTENDENT, CRANBROOK B C

S J DIXEY
REGIONAL OFFICE MANAGER
R3-80-49

NELSON B C
JUNE 3, 1969
11:00 A M
OK VIC

T

AYHMAY

DISTRICT ENGINEER
DEPT OF HIGHWAYS
KELOWNA

WEED AND BRUSH KILLER

REFERENCE URTEL MAY 28TH 3:11 PM ARRANGEMENTS MADE SAME DATE WITH
B A CHEMICAL CO 8321 WILLARD AVE BURNABY 3 B C OXX TO SHIP 270
GALDONS WEED AND BRUSH KILLER TO KELOWNA - COVERED BY CONTROL #10
AS FOLLOWS:

2 - 45 GALLON DRUMS TYPE "A" WEED KILLER 2-4-D
2 - 45 GALLON DRUMS TYPE "B" WEED AND BRUSH KILLER 2-4-D PLUS 2-4-5-T
2 -45 GALLON DRUMS TYPE "C" BRUSH KILLER 2-4-5-T

SHIPPING ADVICE AND INVOICE DIRECT TO YOURSELF AT KELOWNA.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
MAY 30 1969
11:56 AM
OK KAM

May 29, 1969.

Attention: Mr. J.A. Miller and
Mr. Ray Price

B. A. Chemical Co.,
 8321 Willard Ave.,
 Burnaby 3, B.C.

Dear Sirs:

Re: Weed and Brush Killer, Rosedale,
 Prince George and Kelowna

Confirming telephone conversations of May 28th, please arrange to ship the following:

405 gallons of weed and brush killer to the Department of Highways, Rosedale, Control No. 8 as follows:

90 gallons (2 drums) Type "A" weed killer, 2-4-D.
 315 gallons (7 drums) Type "B" weed and brush killer, 2-4-D
 plus 2-4-5-T.

Shipping advice and invoice to Mr. N.W. Wells, District Superintendent, Department of Highways, Chilliwack, B.C.

360 gallons to Dept. of Highways, Prince George, B.C., Control #9,
 being 8 drums Type "C" brush killer, 2-4-5-T.

Shipping advice and invoice to Mr. D.W. Randell, District Engineer, Dept. of Highways, Prince George, B.C.

270 gallons (6 drums) to Department of Highways, Kelowna, B.C., Control No. 10 as follows:

90 gallons (2 drums) Type "A" weed killer, 2-4-D.
 90 gallons (2 drums) Type "B" weed and brush killer, 2-4-D plus
 2-4-5-T.
 90 gallons (2 drums) Type "C" brush killer, 2-4-5-T.

Shipping advice and invoice to Mr. A.L. Freebairn, District Engineer, Department of Highways, Kelowna, B.C.

Yours truly,


 A.E. Rhodes,
 Comptroller of Expenditure.

JAI:ha

2403
~~24862~~

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 28 1969

COMPTROLLER OF EXPENDITURE
DEPT OF HWYS
VICTORIA BC

ATN: J A INGRAM.

ANSWERED.....
NOTED.....
DATE.....
34/5/69

WEED & BRUSH KILLER.

PLEASE ARRANGE IMMEDIATE SHIPMENT OF FOLLOWING:

- (90) TWO 45 GAL TYPE "A" (24D).
- (90) TWO 45 GAL TYPE "B" (245T & 24D MIX).
- (90) TWO 45 GAL TYPE "C" (245T).

A L FREEBAIRN
DISTRICT ENGR
KELOWNA BC

KAMLOOPS
MAY 28, 1969
3:11 PM
MSGE RD VIC

Control #10

137629

compt

May 15th, 1969.

Attention: Mr. Ray Price

B. A. Chemical Company,
8321 Willard Ave.,
Burnaby 3, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Kamloops

Confirming telephone conversation of May 14th, please arrange to ship 90 gallons of weed and brush killer to the Department of Highways, Kamloops, B.C., as follows:

One 45-gallon drum, Type "A", 2-4-D,
weed killer,

One 45-gallon drum, Type "C", 2-4-5-T,
brush killer,

both covered by Control No. 5 with shipping advice and invoice to Mr. A. H. Dibben, District Superintendent, Department of Highways, Kamloops, B.C.

Yours truly,


A.I. Rhodes,
Comptroller of Expenditure.

JAI:he

AYHM

2403

DISTRICT SUPERINTENDENT
DEPT OF HIGHWAYS
KAMLOOPS

WEED AND BRUSH KILLER AND SIMAZINE

REFERENCE URTEL MAY 14TH 11:10 AM YOUR FILE 21-80-0 ARRANGEMENTS
MADE SAME DAY WITH HARRISONS AND CROSFIELD (CANADA) LTD 375 TERMIAXXX
TERMINAL AVE VANCOUVER 4 B C TO SHIP 100 LBS (2-50 LB DRUMS) OF
SIMAZINE, 50-W TO KAMLOOPS UNDER CONTROL #6. ARRANGEMENTS ALSO MADE
WITH B A CHEMICAL CO 8321 WILLARD AVE BURNABY 3 B C TO SHIP 90
GALLONS OF WEED AND BRUSH KILLER AS FOLLOWS:

ONE 45 GALDON DRUM OFX TYPE -A- 2-4-D WEED KILLER

ONE 45 GALDON DRUM OF TXX TYPE "C" - 2-4-5-T BRUSH KILLER
COVERED BY CONTROL #5. IN BOTH INSTANCES SHIPPING ADVICE AND
INVOICE DIRECT TO YOURSELF.

FOR YOUR INFORMATION THE WEED AND BRUSH KILLER PURCHASE ORDER NUMBER
IS ~~XXXX~~ 842109 AND THE SIMAZINE PURCHASE ORDER NUMBER IS 840099.

A E RHONES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
MAY 15 1969
1:31 PM
OK KAM

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

2403

MAY 14 1969

ANSWERED.....
NOTED.....
DATE.....

JPB/s/69

A E RHODES
COMPTROLLER OF EXPENDITURE
DEPT OF HWYS
VICTORIA B C

ATTN: J A INGRAM

→ Contol # 5 A

PLEASE ARRANGE SHIPMENT OF ONE 45 GALLON DRUM OF 2-4-D, ~~BY~~ ONE
45 GALLON DRUM OF 2-4-5-T AND TWO 50 POUND DRUMS OF SIMAZINE TO
DEPT OF HWYS YARD, KAMLOOPS.

→ Contol # 6

A H DIBBEN
DISTRICT SUPT
KAMLOOPS

FILE: 21-80-0

KAMLOOPS
MAY 14/69
AM:SKMF
11:10 AM
MSGC RCD VIC

comp

135823

March 6, 1969.

Attention: Inside Sales
Ray Nestman

Dow Chemical of Canada Ltd.,
796 Granville St.,
Vancouver 2, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Atholmer, Golden, and
Revelstoke

Confirming telephone conversations, today's date, please arrange to ship the following weed and brush killers to the Department of Highways at points noted:

225 gallons (5 - 45-gallon drums) of weed and brush killer, Type "B" (2-4-D plus 2-4-5-T) to Atholmer,

225 gallons (5 - 45-gallon drums) of brush killer, Type "C" (2-4-5-T) to Atholmer, both controlled by No. 30. Shipping advice and invoice to Mr. C.S. Shaw, District Superintendent, Dept. of Highways, Golden, B.C.

225 gallons (5 - 45-gallon drums) weed and brush killer, Type "B" (2-4-5-T plus 2-4-D) to Golden,

225 gallons (5 - 45-gallon drums) brush killer, Type "C" (2-4-5-T) to Golden. Both covered by Control No. 31. Shipping advice and invoice to Mr. C.S. Shaw, Dept. of Highways, Golden, B.C.

180 gallons (4 - 45-gallon drums) weed and brush killer, Type "B" (2-4-D plus 2-4-5-T) to Revelstoke, Control No. 32. Shipping advice and invoice to Mr. S.N.A. McLeod, District Superintendent, Department of Highways, Revelstoke, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI:he

2403
REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

SIMAZINE AND WEED KILLERS ATHALMER AND GOLDEN

REFERENCE URTEL MARCH 5TH 11:55 AM YOUR FILE R3-80-49 ARRANGEMENTS
MADE TODAY WITH HARRISONS AND CROSFIELD (CANADA) LTD 375 TERMINAL
AVE VANCOUVER 4 B C TO SHIP 1,000 LSXX LBS (20 - 50 LB DRUMS)
SIMAZINE TO ATHALMER CONTROL #19, AND 1,000 LBS (20 - 50 LB DRUMS)
SIMAZINE TO GOLDEN CONTROL #20. SHIPPING ADVICE AND INVOICE IN BOTH
INSTANCES TO MR C S SHAW, GOLDEN.

ARRANGEMENTS ALSO MADE WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE
ST VANCOUVER 2 B C TO SHIP 225 GALLONS (5 - 45 GALLON DRUMS) WEED
AND BRUSH KILLER TYPE "B" 2-4-D PLUS 2-4-5-T TO ATHALMER AND 225
GALLONS (5-45 GALLON DRUMS) BRUSH KILLER TYPE "C" 2-4-5-T. BOTH
COVERED BY CONTROL #40.

ALSO A SIMILAR SHIPMENT OF 225 GALLONS EACH OF TYPES "B" AND "C"
TO GOLDEN CONTROL #31. SHIPPING ADVICE AND INVOICE IN BOTH INSTANCES
DIRECT TO C S SHAW AT GOLDEN.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
MAR 6 1969

4:14 PM
THAT CONTROL NUMBER IN SECOND PARAGRAPH SHUD READ #30 NOT #40.
OK NELSON

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

2403

SIMZALNE NELSON AND NEW DENVER

WEED AND BRUSH KILLER NEW DENVER

REFERENCE UW TELETYPES MARCH 3RD 10:00 AM AND 3:50 PM YOUR FILE
R3-80-49 ARRANGEMENTS MADE SAME DAY AS FOLLOWS WITH HARRISONS AND
CROSFIELD (CANADA) LTD 375 TERMINAL AVE VANCOUVER 4 B C
3,000 LBS (6 - 50 LB DRUMS) SIMAZINE TO NELSON CONTROL #17 SHIPPING
ADVICE AND INVOICE TO MR G R KENT.

1,000 LBS (20 - 50 LB DRUMS) SIMAZINE TO NEW DENVER CONTROL #16
SHIPPING ADVICE AND INVOICE TO MR D C WESTAWAY.

ARRANGEMENTS ALSO MADE WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE
ST VANCOUVER 2 B C TO SHIP 180 GALLONS (4 - 45 GAL DRUMS) TYPE "B"
WEED AND BRUSH KILLER (2-4-D PLUS 2-4-5-T) AND 450 GALLONS (10 - 45
GALLON DRUMS) TYPE "C" BRUSH KILLER (2-4-5-T) ALL CONTROLLED BY #29.
SHIPPING ADVICE AND INVOICE TO MR D C WESTAWAY.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
MAR 5 1969
2:17 PM
OK NELSON

2403

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAR 3 1969

ANSWERED.....
NOTED.....
DATE..... 3/3/69

COMPTROLLER OF EXPENDITURE
DEPARTMENT OF HIGHWAYS
VICTORIA B C

ATTENTION MR J A INGRAM

PLEASE ARRANGE SHIPMENT OF

180 GALLONS (4-45 GALLON DRUMS) WEED AND BRUSH KILLER 2-4-D
AND 2-4-ST

450 GALLONS (10-45 GALLON DRUMS) BRUSH KILLER 2-4-5T

1000 POUNDS (20-50 POUND DRUMS) SIMAZINE *control # 16*

TO DEPT OF HIGHWAYS, NEW SDENVER B C

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPT, NEW DENVER B C

S J DIXEY
REGIONAL OFFICE MANAGER
R3-80-49

NELSON B C
MARCH 3, 1969
10:00 A M
MSGC RCD VIC

127034

February 21st, 1969.

Attention: Inside Sales
Attention: Mr. Ray Nestman

Dow Chemical of Canada Ltd.,
796 Granville St.,
Vancouver 2, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Fernie and Rossland.

Confirming telephone conversation of February 21st, please arrange to ship 270 gallons of weed and brush killer to the Department of Highways, Fernie, B.C., Control No. 26, as follows:

Two 45-gallon drums Type "B" weed and brush killer,
(2-4-D plus 2-4-5-T).
Four 45-gallon drums Type "C" brush killer, (2-4-5-T).

Shipping advice and invoice to Mr. A.E. Staite, District Superintendent, Department of Highways, Fernie, B.C.


Also, please arrange to ship 630 gallons of weed and brush killer to the Department of Highways, Rossland, as follows: *Control # 77*

Seven 45-gallon drums Type "B" weed and brush killer (2-4-D plus 2-4-5-T).

Seven 45-gallon drums Type "C" brush killer (2-4-5-T).

Shipping advice and invoice to Mr. R.E. McKeown, District Superintendent, Rossland, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI:hs

February 21st, 1969.

Attention: Inside Sales
Attention: Ray Nestman

Dow Chemical of Canada Ltd.,
796 Granville St.,
Vancouver 2, B.C.

Dear Sirs:

Re: Weed and Brush Killer, Grand
Forks and Cranbrook

Confirming telephone conversation of February 21st, 1969, please
arrange to ship the following:

360 gallons weed and brush killer to the Department of Highways,
Grand Forks, B.C., Control No. 24. Shipping advice and invoice to Mr.
R.M. McMillan, District Superintendent, Dept. of Highways, Grand Forks
as follows:

One 45-gallon drum, Type "A", weed killer (2-4-D).
Two 45-gallon drums, Type "B", weed and brush killer
(2-4-D plus 2-4-5-T).
Five 45-gallon drums, Type "C", brush killer (2-4-5-T).

Also, please arrange to ship 360 gallons weed and brush killer to
the Department of Highways, Cranbrook, B.C., Control No. 25. Shipping
advice and invoice to Mr. G.E. Austin, District Superintendent, Depart-
ment of Highways, Cranbrook, B.C. As follows:

Four 45-gallon drums, Type "B", weed and brush killer (2-4-D plus
2-4-5-T).
Four 45-gallon drums, Type "C", brush killer (2-4-5-T).

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI:he

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

2402

SIMAZINE WEED AND BRUSH KILLERS FERNIE AND ROSSLAND
REFERENCE UR TELETYPES FEB 21ST 9:29 AM AND 9:25 AM YOUR FILE
R3-80-49 ARRANGEMENTS MADE TODAY WITH HARRISONS AND CROSFIELD
(CANADA) LTD 375 TERMINAL AVE VANCOUVER 4 B C TO SHIP 2,000 LBS
OF SIMAZINE (40-50 LB DRUMS) TO ROSSLAND CONTROL #14. SHIPPING
ADVICE AND INVOICE TO MR R E MCKEOWN.

ARRANGEMENTS ALSO MADE WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE
STREET VANCOUVER 2 B C TO SHIP 270 GALLONS OF WEED AND BRUSH KILLER
TO FERNIE CONTROL #26 AS FOLLOWS:

TW 45 GALLON DRUMS TYPE "B" WEED AND BRUSH (2-4-D PLUS 2-4-5-T)
FOUR 45 GALLON DRUMS TYPE "AC" BRUSH KILLER (~~2-4-5-T~~ 2-4-5-T) CONTROL
NO 26.

SHIPPING ADVICE AND INVOICE TO MR A E STAITE.

(FIRST ONE SHOULD READ TWO 45 GALLON DRUMS TYPE "B")

ALSO 630 GALLONS WEED AND BRUSH KILLER TO ROSSLAND CONTROL #27 AS
FOLLOWS:

SEVEN 45 GALLON DRUMS TYPE "B" WEED AND BRUSH KILLER (2-4-D PLUS
2-4-5-T)

SEVEN 45 GALLON DRUMS BRUSH KILLER (2-4-5-T) WITH INVOICE AND
SHIPPING ADVICE TO MR R E MCKEOWN.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
FEB 21 1969
4:31 PM
MSGC RCD NELSON

2403
REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

WEED AND BRUSH KILLER AND SIMAZINE GRAND FORKS AND CRANBROOK
REFERENCE URTELS FEB 20TH 4:35 PM AND 4:51 PM UR FILE R3-80-49
ARRANGEMENTS MADE WITH HARRISONS AND CROSFIELD (CANADA) LTD 375
TERMINAL AVE VANCOUVER 4 B C TO SHIP 2,000 LBS (40-50 LB DUXX DRUMS)
OF SIMAZINE TO GRAND FORKS CONTROL #12. ARRANGEMENTS MADE WITH
SAME FIRM TO SHIP 1,200 LBS (24-50LB DRUMS) OF SIMAZINE TO
CRANBROOK CONTROL #13.

ARRANGEMENTS ALSO MADE WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE
ST VANCOUVER 2 B C TO SHIP THE FOLLOWING WEED AND BRUSH KILLERS:

360 ~~GALLONS~~ GALLONS TO GRAND FORKS CONTROL #24 AS FOLLOWS:

ONE 45 GALLON DRUM TYPE -A- WEED KILLER 2-4-D

TWO 45 GALLON DRUM TYPE "B" WEED AND BRUSH KILLER 2-4-D PLUS 2-4-5-T

FIVE 45 GALLON DRUMS TYPE "C" BRUSH KILLER 2-4-5-T

AND 2 360 GALLONS WEED AND BRUSH KILLER TO CRANBROOK CONTROL #25 AS
FOLLOWS:

FOUR 45 GALLON DRUMS TYPE "B" WEED AND BRUSH KILLER 2-4-D PLUS 2-4-5-T

FOUR 45 GALLON DRUMS TYPE "C" BRUSH KILLER 2-4-5-T

IN ALL ~~BN~~ THE ABOVE INSTANCES SHIPPING ADVICE AND INVOICE DIRECT
TO MR R M ~~EM~~ MCMILLAN AT GRAND FORKS AND MR G K AUSTON AT CRANBROOK.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
FEB 21 1969
4:24 PM
MSGE RCD NELSON

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

FEB 21 1969

ANSWERED.....
NOTED.....
DATE..... *2/21/69*

2403

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ATTENTION MR J A INGRAM

PLEASE ARRANGE SHIPMENT AS FOLLOWS

3-5 GALLONS (7-45 GALLON DRUMS) TYPE "B" 2-4-D AND 2-4-5-T

ABOVE SHOULD READ 315 GALLONS

315 GALLONS (7-45 GALLON DRUMS) TYPE "C" 2-4-5-T

2000 POUNDS (40-50 POUND DRUMS) SIMAZINE TO ROSSLAND B C

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPT ROSSLAND B C

Control # 27

Control # 14

R3-80-49

S J DIXEY
REGIONAL OFFICE MANAGER

NELSON B C
FEBRUARY 21, 1969
9:29 A M
MSGC RCD VIC

125970

Comp

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

FEB 20 1969

ANSWERED...

NOTED...

DATE...

2/21/69

2403

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ATTENTION - J A INGRAM

PLEASE ARRANGE SHIPMENT OF

4 ONLY - 45 GALLON DRUMS - TYPE B - 2-4-D AND 2-4-5- T

4 ONLY - 45 GALLON DRUMS - TYPE C -

2-4-5-T

Control # 28

1,200 POUNDS (24-50 POUND DRUMS) SIMAZINE TO CRANBROOK B C → *Control # 13*
SHIPPING ADVICE AND INVOICE TO DISTRICT SUPT, CRANBROOK B C

S J DIXEY
REGIONAL OFFICE MANAGER

NELSON B C
REG FILE: R3-80-49
FEB 20/69
4:51 P M
MSGE RCD VIC

125336

comp

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

FEB 20 1969

2403

ANSW. D.
NOTED.
DATE.
21/2/69

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ATTENTION JA INGRAM

PLEASE ARRANGE SHIPMENT OF :

- (1) 1 ONLY 45 GALLON DRUM- TYPE "A" 2-4-D
- (2) 2 ONLY 45 GALLON DRUMS - TYPE "B" 2-4-D & 2-4-5-T
- (3) 5 ONLY 45 GALLON DRUMS - TYPE "CZZ 2-4-5-T

Control # 24

AND 2,000 POUNDS (40-50 POUND DRUMS) SIMAZINE TO GRAND FORKS B C .

Control # 12

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPT, GRAND FRKS, B C

S J DIXEY
REGIONAL OFFICE MANAGER

REG FILE: R3-80-49
NELSON B C
FEB 20/69
4:35 P M
MSGE RCD VIC

125834

compt

AYCDAY

2403

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

SIMAZINE - WEED AND BRUSH KILLER

REFERENCE MREURTEL JAN 31ST 3:54 PM YOUR FILE R3-80-49 ARRANGEMENTS
MADE FEB 3RD WITH HARRISONS AND CROSFIELD (CANADA) LTD 375 TERMINAL
AVE VAN 4 B C TO SHIP 4,000 LBS 80 - 50 LB DRUMS OF SIMAZINE TO
CRESTON CONTROL #9 SHIPPING ADVICE AND INVOICE DIRECT TO MR G R KENT.

ARRANGEMENTS MADE ALSO WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE
ST VANCOUVER 2 B C TO SHIP 360 GALLONS (8 - 45 GAL DRUMS) TYPE "B"
WEED AND BRUSH KILLER 2-4-D PLUS 2-4-5-T AND 360 GALLONS 8 - 45 GAL
DRUMS TYPE "C" BRUSH KILLER 2-4-5-T TO CRESTON CONTROL #22 WITH
SHIPPING ADVICE AND INVOICE GOING DIRECT TO MR G R KENT.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE 2403
VICTORIA
FEB 4 1969
11:41 AM
MSGE RECD ENELSON

February 4th, 1969.

Attention: Mr. Ray Nestman

Dow Chemical of Canada Ltd.,
796 Granville Street,
Vancouver 2, B.C.


Dear Sirs:

Re: Weed and Brush Killer,
Creston

Confirming telephone conversation of February 3rd, please arrange to ship, as soon as possible, 720 gallons of weed and brush killer to the Department of Highways, Creston, B.C., as follows:

360 gallons (8 - 45-gal drums) Type "B" weed and brush killer, 2-4-D plus 2-4-5-T and 360 gallons (8 - 45-gal. drums) Type "C" brush killer, 2-4-5-T, covered by Control 22. Shipping advice and invoice to Mr. G.R. Kent, District Superintendent, Department of Highways, Nelson, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI:he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

JAN 31 1969

AYC DAYCD

ANSW. RFD
NOTED
DATE 3/2/69

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ATTENTION: J A INGRAM

SUBJECT: WEED AND BRUSH KILLER AND SIMAZINE

PLEASE ARRANGE SHIPMENT OF 4000 POUNDS (80 -50 POUND DRUMS)

SIMAZINE 50 W SOIL STERILANT, ^{Control #9} ALSO 360 GALLONS (8-45 GALLON
DRUMS) TYPE "B" WEED AND BRUSH KILLER 2-4-D AND 2-4-5T.

ALSO, 360 GALLONS (8-45 GALLON DRUMS) TYPE "C" BRUSH KILLER
2-4-5T FOR SHIPMENT TO DEPARTMENT OF HIGHWAYS, CRESTON B C
SHIPPING ADVISE AND INVOICE TO DISTRICT SUPT, NELSON B C .

S J DIXEY
REGIONAL OFFICE MANAGER

REG FILE: R3-80-49
NELSON B C
JAN 31/69
3:54 P M
MSGC RCD VIC

123613

October 11th, 1968.

Attention: Inside Sales

Dow Chemical of Canada Ltd.,
796 Granville St.,
Vancouver 2, B.C.

Dear Sirs:

Re: Brush Killer, Cranbrook

Confirming telephone conversation with Mr. Ray Nestman,
please arrange to ship, as soon as possible, 90 gallons (2 - 45-gallon drums)
of Type "C" brush killer (2-4-5-T) to the Department of Highways, Cranbrook,
Control No. 21. Shipping advice and invoice to Mr. G.K. Austin, District
Superintendent, Department of Highways, Cranbrook, B.C.

Yours truly,


M.E. Rhodes,
Comptroller of Expenditure.

JAI:he

AYCDAY

2403

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

SIMAZINE AND BRUSH KILLER

REFERENCE URTEL OCT 10TH 11:32 AM YOUR FILE R3-80-49 ARRANGEMENTS
MADE TODAY WITH HARRISONS AND CROSFIELD (CANADA) LTD 375 TERMINAL
AVE VANCOUVER 4 B C TO SHIP 500 LBS (10-50 LB DRUMS) OF SIMAZINE
TO CRANBROOK CONTROL #8.

ARRANGEMENTS ALSO MADE WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE
ST VANCOUVER 2 B C TO SHIP 90 GALLONS (2-45 GALLON DRUMS) TYPE "C"
BRUSH KILLER (2-4-5-T) TO CRANBROOK CONTROL #21.

IN BOTH THE ABOVE INSTANCES SHIPPING ADVICE AND INVOICE TO MR G K
AUSTIN AT CRANBROOK.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
OCT 11 1968
2:22 PM
MSG RECD NELSON

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

OCT 10 1968

2403

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

ANSW RED.....
NOTED.....
DATE..... 11/1/68

ATTENTION MR J A INGRAM

SUBJECT - WEED AND BRUSH KILLER AND SIMAZINE

Control #8
check hullen

PLEASE ARRANGE SHIPMENT OF 500 POUNDS SIMAZINE 50 W SOIL STERILAND
(10-50 POUND DRUMS) ALSO 90 GALLONS (2-45 GALLON DRUMS)

TYPE "C" BRUSH KILLER 2-4-5T TO DEPT OF HIGHWAYS CRANBROOK B C

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPT CRANBROOK B C

Control #21

S J DIXEY
REGIONAL OFFICE MANAGER

R3-80-49

NELSON B C
OCTOBER 10, 1968
11:32 A M
MSGE RCD IC

110995

copy

AYCDAY

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

WEED AND BRUSH KILLER NEW DENVER

REFERENCE YOUR TELETYPE JULY 23, 1:37 PM ARRANGEMENTS MADE TODAY
WITH DOW CHEMICAL OF CANADA LIMITED 796 GRANVILLE STREET VANCOUVER
2 B C TO SHIP 135 GALLONS (3-45 GAL DRUMS) TYPE "B" WEED AND BRUSH
KILLER (2-4D PLUS 2 - 45 - T) TO NEW DENVER CONTROL #17. SHIPPING
ADVICE AND INVOICE TO D C WESTAWAY.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
JULY 23 1968
4:34 PM
O K NEL

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

JUL 23 1968

ANSWERED.....
NOTED.....
DATE.....

AYCDAY

Control # 17

2103.
1/88

COMPTROLLER OF EXPENDITURE
DEPARTMENT OF HIGHWAYS
VICTORIA B C

ATTENTION MR INGRAM

PLEASE ARRANGE SHIPMENT OF THE FOLLOWING TO DEPARTMENT OF
HIGHWAYS NEW DENVER B C BY CHEAPEST ROUTE

3 ONLY 45 GALLON DRUMS TYPE B 2-4-5T AND 2-4-D WEED
AND BRUSH KILLER

SHIPPING ADVICE AND INVOICE DIRECT TO DISTRICT SUPERINTENDENT
NEW DENVER B C

S J DIXEY
REGIONAL OFFICE MANAGER
NELSON B C

NELSON B C
JULY 23/68
1:37 P M
1 4 U
MSGC RCD VIC

102193

Compt

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

JUL 23 1968

ANSWERED.....
NOTED.....
DATE.....

AYCDAY

Control # 17

2403.
1/88

COMPTROLLER OF EXPENDITURE
DEPARTMENT OF HIGHWAYS
VICTORIA B C

ATTENTION MR INGRAM

PLEASE ARRANGE SHIPMENT OF THE FOLLOWING TO DEPARTMENT OF
HIGHWAYS NEW DENVER B C BY CHEAPEST ROUTE

3 ONLY 45 GALLON DRUMS TYPE B 2-4-5T AND 2-4-D WEED
AND BRUSH KILLER

SHIPPING ADVICE AND INVOICE DIRECT TO DISTRICT SUPERINTENDENT
NEW DENVER B C

S J DIXEY
REGIONAL OFFICE MANAGER
NELSON B C

NELSON B C
JULY 23/68
1:37 P M
1 4 U
MSGC RCD VIC

102193

Ampt

July 23, 1968.

Dow Chemical of Canada Limited,
796 Granville Street,
Vancouver 2, B. C.

Attention: Inside Sales

Dear Sirs:

Re: Type "B" Weed and Brush Killer,
New Denver

Confirming telephone conversation today's date, please arrange to ship as soon as possible 135 gallons (3 - 45 gallon drums) Type "B" weed and brush killer (24 - 40 plus 2 - 45 - T) to Department of Highways, New Denver, Control #17. Shipping advice and invoice direct to D. C. Westaway, District Superintendent, Department of Highways, New Denver.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI/dvt

AYCDAY

DISTRICT SUPERINTENDENT
DEPT OF HIGHWAYS
NELSON B C

WEED AND BRUSH KILLER

CONFIRMING TELEPHONE CONVERSATION OF TODAY DATE ARRANGEMENTS HAVE
BEEN MADE WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE STREET
VANCOUVER 2 B C TO SHIP 225 GALLONS WEED AND BRUSH KILLER TO NELSON
UNDER CONTROL #16 AS FOLLOWS:

90 GALLONS - 2 DRUMS - TYPE C BRUSH KILLER (2-45-T)

~~XXXX~~ 135 GALLONS - 3DRUMS - TYPE B WEED & BRUSH KILLER (24D PLUS
2-45-T)

SHIPPING ADVICE AND INVOICE DIRECT~~OR~~ TO YOURSELF.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
JULY 19 1968
9:32 AM
OK NELSON

July 18, 1968.

Dow Chemical of Canada Limited,
796 Granville Street,
Vancouver 2, B.C.


Attention: Inside Sales

Dear Sirs:

Re: Weed and Brush Killer - Nelson, B.C.

Confirming telephone conversation of today's date please arrange to ship 225 gallons Weed and Brush Killer to Department of Highways, Nelson: 90 gallons - 2 drums - Type C Brush Killer (2-45-T); 135 gallons - 3 drums - Type B, Weed and Brush Killer (24D + 2-45-T) covered by Control #16 shipping advice and invoice to G.R. Kent, District Superintendent, Department of Highways, Nelson, B.C.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI:ds

June 6th, 1968.

Attention: Inside Sales

Dow Chemical of Canada Ltd.,
796 Granville St.,
Vancouver 2, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Rossland

Confirming telephone conversation of June 5th, please arrange to ship 180 gallons of weed and brush killer to the Department of Highways, Rossland, B.C., covered by Control No. 12.

2 - 45-gallon drums (90 gallons) Type "B"
weed and brush killer (2-4-D plus 2-4-5-T).

2 - 45-gallon drums (90 gallons) Type "C"
brush killer (2-4-5-T).

Shipping advice and invoice to Mr. R.E. McKeown, District Superintendent, Department of Highways, Rossland, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI:he

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

2403

WEED AND BRUSH KILLER ROSSLAND

REFERENCE YOUR TELETYPE JUNE 5TH 3:28 PM ARRANGEMENTS MADE SAME
DAY WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE ST VANCOUVER 2 B C
TO SHIP 180 GALLONS OF WEED AND BRUSH KILLER AS DETAILED BELOW
TO ROSSLAND CONTROL #12.

90 GALLONS (2-4-D PLUS 2-4-5-T) 2 - 45 GALLON DRUMS TYPE "B" WEED
90 GALLONS (2-4-5-T) 2 - 45 GALLON DRUMS TYPE "C" BRUSH KILLER.
SHIPPING ADVICE AND INVOICE DIRECT TO MR R E MCKEOWN.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
JUNE 6 1968
9:43 AM
OK NELSON

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

JUN 5 - 1968

ANSWERED.....
NOTED.....
DATE..... 6/6/68

2/03

MR A E RHODES
COMPTROLLER OF EXPENDITURES
DEPT OF HIGHWAYS
VICTORIA B C

ATTENTION: MR J A INGRAM

PLEASE ARRANGE SHIPMENT OF THE FOLLOWING TO DEPARTMENT OF HIGHWAYS

ROSSLAND B C BY CHEAPEST ROUTE:

2 ONLY 45 GALLON DRUMS TYPE B. 2-4-5T AND 2-4-D WEED AND BRUSH KILLER

2 ONLY 45 ~~XXXX~~ GALLON DRUMS TYPE C. 2-4-5T BRUSH KILLER

SHIPPING ADVICE AND INVOICE DIRECT TO DISTRICT SUPERINTENDENT

ROSSLAND B C.

S J DIXEY
REGIONAL ~~OFFICE~~ OFFICE MANAGER

NELSON
JUNE 5, 1968
R3-80-49
3:28PM
MSGC RCD VIC

96374

[Handwritten signature]

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON B C

2/03

WEED AND BRUSH KILLER CRANBROOK

REFERENCE YOUR TELETYPE MAY 29TH 4:04 PM ARRANGEMENTS MADE THE
SAME DAY WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE ST VANCOUVER
2 B C TO SHIP 315 GALLONS WEED AND BRUSH KILLER TO CRANBROOK AS
FOLLOWS;

2 - 45-GALLON DRUMS (90 GALLONS) TYPE A WEED KILLER 2-4-D.

3 - 45-GALLON DRUMS (135 GALLONS) WEED AND BRUSH KILLER TYPE B
2-4-D PLUS 2-4-5-T.

2 - 45- GALLON DRUMS (90 GALLONS) BRUSH KILLER TYPE C (2-4-5-T).

THE WHOLE COVERED BY CONTROL 11. SHIPPING ADVICE AND INVOICE
DIRECT~~TX~~ TO G K AUSTIN.

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE #2403
VICTORIA
MAY 30 1968
11:22 AM
GAOK NELSON
I HAVE 2

May 30th, 1968.

Attention: Inside Sales

Dow Chemical of Canada Ltd.,
796 Granville Street,
Vancouver 2, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Cranbrook

Confirming telephone conversation of May 29th, please arrange to ship 315 gallons of weed and brush killer to the Department of Highways, Cranbrook as follows:

2 - 45-gallon drums (90 gallons) Type "A" weed killer, (2-4-D).

3 - 45-gallon drums (135 gallons) Type "B" weed and brush killer, (2-4-D plus 2-4-5-T).

2 - 45-gallon drums (90 gallons) Type "C" brush killer (2-4-5-T).

The whole order covered by Control No. 11. Shipping advice and invoice to Mr. C.K. Austin, District Superintendent, Department of Highways, Cranbrook, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI:he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 29 1968

ANSV. D.

NOTED

DATE

MS
29/5/68

2403

MR A E RHODES
COMPTROLLER OF EXPENDITURE
DEPARTMENT OF HIGHWAYS
VICTORIA B C

ATTENTION - MR J A INGRAM

PLEASE ARRANGE SHIPMENT OF THE FOLLOWING TO DEPARTMENT OF HIGHWAYS.
CRANBROOK B C BY CHEAPEST ROUTE:

2 ONLY 45 GALLON DRUMS TYPE A-2-4-D WEED KILLER

3 ONLY 45 GALLON DRUMS TYPE B-2-4-D, 2-4-5-T WEED AND BRUSH KILLER

2 ONLY 45 GALLON DRUMS TYPE C-2-4-5T BRUSH KILLER

S J DIXEY

REGIONAL OFFICE MANAGER

REGIONAL FILE - R3-80-49

NELSON

MAY 29/68

4:04 PM

1 4 U

MSGE RCD VIC

95478

Thomson

Ampt.

May 16th, 1968.

Attention: Inside Sales

Dow Chemical of Canada Ltd.,
796 Granville St.,
Vancouver 2, B.C.

Dear Sirs:

Re: Weed and Brush Killer, Vernon

Confirming telephone conversation of May 15th, please arrange to ship 270 gallons of weed and brush killer to the Department of Highways, Vernon as follows:

Two 45-gallon drums (90 gallons) Type A weed killer, (2-4-D).

Four 45-gallon drums (180 gallons) Type B, weed and brush killer, (2-4-D plus 2-4-5-T), covered by Control No. 9.

Shipping advice and invoice to Mr. P.S. Dunn, District Superintendent, Department of Highways, Vernon, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

November 14, 1967.

Mr. Eric Hughes,
Department of Agriculture,
406 Sixth Street,
New Westminster, B. C.

Dear Mr. Hughes:

As requested during our telephone conversation of today's date, the following is a breakdown of the weed and brush chemicals used by this Department from January 1st to the present date:

2,4-D	Region 1, Vancouver	-	315	gallons
	Region 2, Kamloops	-	495	"
	Region 3, Nelson	-	225	"
	Region 4, Prince George	-	<u>225</u>	"
	Total	-	1,260	"
2,4-D + 2,4,5-T	Region 1	-	1,260	gallons
	Region 2	-	1,980	"
	Region 3	-	1,935	"
	Region 4	-	<u>3,285</u>	"
	Total	-	8,460	"
2,4,5-T	Region 1	-	450	gallons
	Region 2	-	360	"
	Region 3	-	1,125	"
	Region 4	-	<u>--</u>	"
	Total	-	1,935	"
Simazine	Region 1	-	13,200	pounds
	Region 2	-	10,150	"
	Region 3	-	13,100	"
	Region 4	-	<u>13,850</u>	"
	Total	-	50,300	"

While these are the total amounts purchased since January 1st, it cannot be ascertained if it has all been applied without contacting each District office.

We trust this information will be of value to you.

Yours very truly,

Michael Pope
Michael Pope,
Landscape Supervisor.

MP/jc

August 15, 1967.

B. A. Chemicals Ltd.,
1001 East Fender Street,
Vancouver 6, B. C.

Attention: Mr. Alec Miller

Dear Sir:

Re: Weed and Brush Killers - Nelson

Confirming telephone conversation today's date, please arrange to ship as soon as possible the following weed and brush killer to Department of Highways at Nelson covered by Control No. 33. Shipping Advice and invoice to M. Merlo, District Engineer, Department of Highways, Nelson, B. C.:

225 gals. (5 Drums) Type "A" Weed Killer (2-4-D)
225 gals. (5 Drums) Type "B" Weed and Brush Killer
(2-4-D + 2-45-T)
225 gals. (5 Drums) Type "C" Brush Killer (2-45-T)

Yours truly,



A. E. Rhodes,

Comptroller of Expenditure.

JAI/svt

MR W I N HIGGINS
REGIONAL OFFICE MGR
NELSON B C

2/103

SUBJECT: WEED AND BRUSH KILLERS AT NELSON

REFERENCE TELEPHONE CONVERSATION TODAY'S DATE, ARRANGEMENTS MADE
WITH B.A. CHEMICALS LTD., 1001 EAST PENDER STREET, VANCOUVER 6, B C
TO SHIP 675 GALS. WEED AND BRUSH KILLER TO NELSON AS FOLLOWS:
225 GALS. (5 DUMS) TYPE "A" WEED KILLER (2-4-D)
225 GALS. (5 DRUMS) TYPE "B" WEED AND BRUSH KILLER (2-4-D PLUS 2-45-D)
225 GALS. (5 DRUMS) TYPE "C" BRUSH KILLER (2-45-T)
XM
THIS IS COVERED BY CONTROL #33. SHIPPING ADVICE AND INVOICE DIRECT
TO N. MERLO.

A F RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
AUG 15/67
3:48PM

OK NEL

August 9, 1967.

B. A. Chemicals Ltd.,
1001 East Pender Street,
Vancouver 6, B. C.

Attention: Mr. Hawksby

Dear Sir:

Re: Type "B" Weed and Brush Killer -
Rossland

Confirming telephone conversation today's date,
please arrange to ship as soon as possible 135 gals. (3 -
45 gal. drums) Type "B" Weed and Brush Killer (2-4-D + 2 -
45-T) to Department of Highways, Rossland, B. C. covered by
Control No. 32. Shipping advice and invoice to R. E. McKeown,
District Superintendent, Department of Highways, Rossland, B. C.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI/avt

MR W I N HIGGINS
REGIONAL OFFICE MGR
NELSON B C

2403

SUBJECT: TYPE "B" WEED AND BRUSH KILLER - ROSSLAND

CONFIRMING TELEPHONE CONVERSATION TODAY'S DATE, ARRANGEMENTS MADE
TODAY WITH B.A. CHEMICALS LTD., 1001 EAST FENDER ST., VANCOUVER 6,
B.C. TO SHIP 135 GALS. (3 - 45 GAL. DRUMS) TYPE "B" WEED AND BRUSH
KILLER (2-4-D PLUS 2-45-T) TO ROSSLAND COVERED BY CONTROL NO. 32.
SHIPPING ADVICE AND INVOICE TO R E MCKEOWN.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
AUG 9/67
2:24PM

OK NEL

GOAYGO

MR W I N HIGGINS
REGIONAL OFFICE MANAGER
NELSON B C

2403

SUBJECT: SIMAZINE - WEED AND BRUSH KILLER, GOLDEN AND NELSON.

WITH REFERENCE TO TELEPHONE CONVERSATION OF AUGUST 7, PLEASE BE ADVISED AS FOLLOWS: ARRANGEMENTS MADE TODAY WITH HARRISONS & CROSFIELD (CANADA) LTD., 375 TERMINAL AVE., VANCOUVER 4, B C. TO SHIP 1600 LBS. (32 - 50 LB. DRUMS) SIMAZINE TO CRANBROOK, CONTROL #25.

ARRANGEMENTS ALSO MADE WITH B.A. CHEMICALS LTD., 1001 EAST PENDER ST., VANCOUVER 6, B.C. TO SHIP; 540 GAL. (12 - 45 GAL. DRUMS) TYPE "B" WEED AND BRUSH KILLER (2-4-D PLUS ~~2-4-5-T~~ 2-4-5-T) TO GOLDEN, CONTROL #30. 225 GAL. (45 GAL. DRUMS) TYPE "A" WEED KILLER (2-4-D) TO NELSON, CONTROL #31. 450 GAL. TYPE "B" (10 - 45 GAL. DRUMS) WEED AND BRUSH KILLER (2-4-D PLUS 2-4-5-T) TO NELSON, CONTROL #31. IN EACH INSTANCE, SHIPPING AND INVOICE TO C.S. SHAW, GOLDEN AND M.A. MERLO, NELSON.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
AUG 8/67
1:35PM

OK NEL

AYHM

August 8, 1967.

B. A. Chemicals Ltd.,
1001 East Pender Street,
Vancouver 6, B. C.

Attention: Mr. Alec Miller

Dear Sir:

Re: Weed and Brush Killer - Golden & Nelson

Confirming telephone conversation today's date, please arrange to ship as soon as possible the following:

540 gal. (12 - 45 gal. drums) Type "B" Weed and Brush Killer (2-4-D + 2-45-T) to Department of Highways, Golden, covered by Control #30. Shipping advice and invoice to C.S. Shaw, District Superintendent, Department of Highways, Golden, B. C.

675 gal. to Department of Highways, Nelson as follows:

225 gal. (5 drums) Type "A" Weed Killer (2-4-D)
450 gal. Type "B" (10 drums) Weed and Brush Killer 2-4-D + 2-45-T both to Department of Highways, Nelson, B. C., covered by Control #31. Shipping advice and invoice to W.A. Merlo, District Engineer, Department of Highways, Nelson.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI/dvt

MR W I N HIGGINS
REGIONAL OFFICE MGR.,
NELSON B C

26/03

SUBJECT: WEED AND BRUSH KILLER AND BRUSH KILLER

REFERENCE YOUR TELETYPE JULY 25TH, 4:07 PM., ARRANGEMENTS MADE TODAY
WITH B.A. CHEMICALS LTD., TO SHIP AS SOON AS POSSIBLE, AS REQUESTED
2 ONLY 45-GALLON DRUMS (90 GALLONS) OF TYPE "B". WEED AND BRUSH KILLER
2-4-D AND 2-4-5-T, AND 4 ONLY 45-GALLON DRUMS (180 GALLONS) OF TYPE
"C", BRUSH KILLER, 2-4-5-T, ALL TO BE COVERED BY CONTROL NO. 29.
SHIPPING ADVICE AND INVOICE TO MR G K AUSTIN DISTRICT SUPERINTENDENT
DEPARTMENT OF HIGHWAYS, CRANBROOK.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
JULY 26/67
3:54PM

OK NEL

July 26th, 1967.

Attention: Mr. Alec Miller

B. A. Chemicals Ltd.,
1001 East Pender St.,
Vancouver 6, B.C.

Dear Sirs:

Re: Weed and Brush and Brush
Killer, Cranbrook

Confirming telephone conversation, today's date, please arrange to ship via the cheapest route to the Department of Highways, Cranbrook, as soon as possible, two only 45-gallon drums (90 gallons) of Type "B" weed and brush killer, 2-4-D and 2-4-5-T, and four only 45 gallon drums (180 gallons) of Type "C" brush killer, 2-4-5-T, all to be covered by Control No. 29. Shipping advice and invoice to Mr. G.K. Austin, District Superintendent, Department of Highways, Cranbrook, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

NWW/he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

JUL 25 1967

COMPTROLLER OF EXPENDITURE
DEPARTMENT OF HIGHWAYS
VICTORIA B C

ANSWERED

NOTED

DATE

ATTENTION: MR J A INGRAM

PLEASE ARRANGE SHIPMENT OF THE FOLLOWING TO DEPARTMENT OF HIGHWAYS,
CRANBROOK BY CHEAPEST ROUTE:

2 ONLY 45 GALLON DRUMS (90 GALLONS) TYPE "B" WEED AND BRUSH
KILLER 2-4-D AND 2-4-5T

4 ONLY 45 GALLON DRUMS (180 GALLONS) TYPE "C" BRUSH KILLER
2-4-5TM

LAST LINE SHOULD READ 2-4-5T.

W. I N HIGGINS

REGIONAL OFFICE MANAGER

G.K. Austin, D. S. Cranbrook

NELSON
REGIONAL FILE R3-80-49

JULY 25/67
4:07 PM
MSGD RCD VIC

63272

[Handwritten signature]

MR H F COUFE
DISTRICT ENGINEER
SALMON ARM B C

SUBJECT: TYPE "B", WEED AND BRUSH KILLER

REFERENCE YOUR TELETYPE MAY 26TH, 5:00 PM., ARRANGEMENTS MADE TODAY
WITH B.A. CHEMICALS, 1001 EAST PENDER STREET, VANCOUVER 6, B.C., FOR
IMMEDIATE SHIPMENT OF THREE 45-GALLON DRUMS OF TYPE "B" WEED AND
BRUSH KILLER (2-4-D PLUS 2-4-5-T) TO SALMON ARM, CONTROL NO. 23.
SHIPPING ADVICE AND INVOICE DIRECT TO YOURSELF.

NNNN

A E RHODES

COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MAY 29/67
1:37PM

OK KAM

AYLELE

May 29th, 1967.

Attention: Mr. W.A. Calder

B.A. Chemicals Ltd.,
1001 East Pender Street,
Vancouver 6, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Salmon Arm

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, 135 gallons (3 - 45-gallon drums) of Type "B" weed and brush killer (2-4-D plus 2-4-5-T) to Department of Highways, Salmon Arm, B.C., Control No. 23. Shipping advice and invoice to Mr. H.F. Coupe, District Engineer, Department of Highways, Salmon Arm, B.C.

Yours truly,



A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA B C.

MAY 26 1967

ANSWERED _____
NOTED _____
DATE 29/5/67

2/03

A E RHODES
COMPTROLLER OF EXPENDITURE
DEPT OF HWYS
VICTORIA B C

SUBJECT: WEED AND BRUSH KILLER

PLEASE ARRANGE FOR IMMEDIATE SHIPMENT OF THREE 45 GALLON DRUMS OF
TYPE B WEED AND BRUSH KILLER 2-4-5T AND 2-4-D 32 07 AM PLUS
32 07.

H F COUPE
DISTRICT ENGINEER SALMON ARM

Control # 23

KAMLOOPS
MAY 26/67
5:00PM
MSGC RCD VIC

56274

[Signature]

MR P S DUNN
DISTRICT SUPERINTENDENT
VERNON B C

2403

SUBJECT: TYPE "B" WEED AND BRUSH KILLER

REFERENCE YOUR TELETYPE MAY 19TH, 3:17 PM., YOUR FILE 21-81-1,
ARRANGEMENTS MADE TODAY WITH B.A. CHEMICALS LTD., 1001 EAST
PENDER ST., VANCOUVER 6, B.C., TO SHIP TWO 45-GALLON DRUMS OF
TYPE "B" WEED AND BRUSH KILLER, 2-4-D PLUS 2-4-5-T, TO VERNON
COVERED BY CONTROL NO. 22. SHIPPING ADVICE AND INVOICE DIRECT
TO YOURSELF.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE 2403

VICTORIA
MAY 19/67
4:39PM
OK KAM

XXXXXX

May 19th, 1967.

Attention: Mr. W.A. Calder

B.A. Chemicals Ltd.,
1001 East Pender Street,
Vancouver 6, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Vernon

Confirming telephone conversation, today's date, please arrange to ship 90 gallons (two drums) of Type "B" weed and brush killer (2-4-D plus 2-4-5-T) to the Department of Highways, Vernon, B.C., Control No. 22. Shipping advice and invoice to Mr. P.S. Dunn, District Superintendent, Department of Highways, Vernon, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

2/103
MR A H DIBBEN
DISTRICT SUPERINTENDENT
KAMLOOPS B C

ATTN D C HALL DISTRICT OFFICE MANAGER

SUBJECT: BRUSH KILLER

REFERENCE YOUR TELETYPE MAY 16 1:34 PM., ARRANGEMENTS MADE TODAY
WITH W B.A. CHEMICALS LTD., 1001 EAST PENDER ST., VANCOUVER 6, B C
TO SHIP ONE XX 45 GALLON DRUM, TYPE C BRUSH KILLER (2-45-T)
X TO KAMLOOPS, CONTROL #19. SHIPPING ADVICE AND INVOICE TO A H
DIBBEN.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MAY 16/67
4:48PM

OK KAM

RECEIVED
PROV. PUBLIC WORKS DEPT.
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 16 1967
MAY 16 1967

ANSWERED

NOTED

EXHIBITURE

DATE

A E RHODES
COMPTROLLER OF EXPENDITURE
DEPT OF HWYS
VICTORIA B C

ATTN: J A INGRAM

WOULD YOU PLEASE ARRANGE TO HAVE SHIPPED, ⁴⁵25 GALS. OF 2-4-5-T WEED
~~AND~~ BRUSH KILLER TO DEPT OF HWYS. YARD KAMLOOPS.

D C HALL
DISTRICT OFFICE MANAGER

KAMLOOPS
MAY 16/67
XX 1:34 PM
MSGE RCD VICT

Cont'd # 19

54995

Comp

May 16, 1967.

B. A. Chemicals Limited,
1001 East Pender Street,
Vancouver 6, B. C.


Attention: Mr. Alec Miller

Dear Sir:

Re: Brush Killer - Kamloops

Confirming telephone conversation today's date, please arrange to ship as soon as possible, one 45 gallon drum, Type C brush killer (2-45-T) to Department of Highways yards, Kamloops, B. C., Control #19. Shipping advice and invoice to A. H. Dibben, District Superintendent, Department of Highways, Kamloops, B. C.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI/dvt

MR W J N HIGGINS
REGIONAL OFFICE MGR
NELSON B C

21/03

SUBJECT: SIMAZINE AND WEED AND BRUSH KILLER, CRESTON

REFERENCE YOUR TELETYPE TODAY'S DATE, YOUR FILE W3-8G-4S, ARRANGEMENTS MADE TODAY WITH B.A. CHEMICALS LTD., 1001 EAST PENDEP ST., VANCOUVER 6, B.C., TO SHIP 90 GALLONS, 2-45 GALLON DRUMS TYPE 3, WEED AND BRUSH KILLER (2-4-D PLUS 2-4-5-T) TO CRESTON, CONTROL NO. 18.

ARRANGEMENTS ALSO MADE WITH HARRISONS AND CROSFIELD (CANADA) LTD., 375 TERMINAL AVE., VANCOUVER 4, B.C., TO SHIP 1,000 LBS. (20 - 50-LB. DRUMS) OF SIMAZINE TO CRESTON, CONTROL NO. 23. IN BOTH THE ABOVE INSTANCES SHIPPING ADVICE AND INVOICE DIRECT TO MR. M.A. MERLO IN NELSON.

A E RHODES
COMPTROLLER OF EXPENDITURE

FILE # 2403

VICTORIA
MAY 9/67
9:45AM

OK NEL

VGOAYGO

May 9th, 1967.

Attention: Mr. Alec Miller


B. A. Chemicals Ltd.,
1001 East Pender St.,
Vancouver 6, B.C.

Dear Sirs:

Re: Weed and Brush Killer,
Creston

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, 90 gallons (2 - 45-gallon drums) Type B weed and brush killer (2-4-D plus 2-4-5-T) to Department of Highways, Creston, B.C., Control No. 18. Shipping advice and invoice to Mr. M.A. Merlo, District Engineer, Department of Highways, Nelson, B.C.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI/he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 9-1967

ANSWERED _____
NOTED _____
DATE _____

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA B C

2/103

ATTENTION: JA INGRAM

PLEASE ARRANGE SHIPMENT TO DEPARTMENT OF HIGHWAYS CRESTON:
1000 POUNDS SIMAZINE AND 90 ONLY GALLONS TYPE "B" WEED AND
BUSH KILLER 2-4-D AND 2-45-T.

W I HIGGINS
REGIONAL OFFICE MANAGER

O F R3-26-WZ 49

NELSON
MAY 9/67
9:17 AM

MSGE RCD VIC

54138

Compt

240-3

August 5, 1970.

Mr. Randolph Harding, M. P.,
House of Commons,
Ottawa, Canada.

Dear Mr. Harding:

Re: Herbicide 2,4,5-T

I acknowledge and thank you for your letter of July 13th regarding the use by the Department of the herbicide for roadside spraying. I am very sorry I was unable to reply earlier but the postal situation together with staff holidays has given us some administrative problems.

In any case I am enclosing for your information a copy of two letters, one July 3rd to Mr. Davidson of Victoria and one May 6th to Mrs. C. H. Carlson of Kaslo, regarding the program. This is still our general policy and we are following the recommendation of the Canadian Department of Agriculture which together with the U.S. Department has cleared the use of 2,4,5-T for highway roadside spraying, away from food crop areas and water supplies. In the meantime I appreciate your interest and concern and I can assure you that we will be restricting our use of this chemical while following closely the recommendations of the various agricultural authorities.

Yours very truly,



Minister.

RJB/pan
2403/179778

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.



HOUSE OF COMMONS
CANADA

RECEIVED
MINISTER OF HIGHWAYS

JUL 16 1970

VICTORIA, B. C.

JUL 17 1970

ANSWERED *filed per*
NOTED
DATE *July 6, 1970*

OTTAWA, July 13, 1970.

2403

The Hon. Wesley Black,
Minister of Highways,
Parliament Buildings,
Victoria, B.C.

Dear Mr. Minister:

Re: Herbicide 2-4-5-T

I have received a number of complaints from constituents that the Highways Department is still using the above herbicide in its roadside spraying program.

The above weed killer has been banned for use around homes and on lawns and recreational areas because it could constitute a significant hazard to health. There is no doubt that it also constitutes a hazard to health, but to a lesser degree, when used for roadside spraying.

Thorough research has not been done on the full effects of 2-4-5-T and I would urge that your Department curtail its use until adequate research has been carried out and its complete safety can be guaranteed.

Kind regards.

Yours sincerely,

Randolph Harding, M.P.
Kootenay West.

179778

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

June 30, 1970

The Hon. Wesly Black
Minister of Highways
Parliament Bldgs.
Victoria, B. C.

JUL 7 1970

ANSWERED.....
NOTED.....
DATE.....

Re: PETITION AGAINST DEFOLIANTS

RECEIVED
MINISTER OF HIGHWAYS

JUL 7 1970

VICTORIA, B. C.

Sir:

Enclosed herewith you will find a Petition executed by many residents of the New Denver- Silverton area protesting the use of ANY defoliants or other chemical sprays by the Highway Department.

You will note that a photocopy of the covering letter, addenda and petition has been enclosed as the original became quite soiled having passed through so many hands. The original has been retained by the writer and may be viewed, or will be sent, upon request.

The position taken by Petitioners has been embraced by the Slocan Pollution Asso. and the West Kootenay Pollution Association (Nelson). The various legal proceedings contemplated will be maintained with these associations as plaintiff, on behalf of petitioners and all other persons similarly situated.

We urgently solicit your immediate cooperation in ordering the cessation of all the practises complained of by petitioners. Thank you.

Very truly yours,

Jerome Jenks

Jerome Jenks,
on behalf of petitioners

address: Jenks/Petitioners/New Denver, B.C.

178723

Hon. Wesley Black
Minister of Highways
Parliament Buildings
Victoria, B. C.

Re: DEFOLIANTS

Sir:

- (*) You will find attached hereto a PETITION made by the members of the village of New Denver and environs protesting the use of any and all defoliants upon the highway margins, borders and right of way in the Highway 6 area between Slokan and Nakusp and along the scenic highway connecting New Denver with Kaslo to the east.

There can be no doubt that the dangers to human and animal life from the use of herbicides of every kind and the particular defoliants in use in Canada and the United States are unassessable and absolutely unjustifiable. The effects from such defoliant usage is long range and may involve not only unknown dangers to human life but also to the land, to soil, to other vegetation, livestock and the entire ecology.

Your attention is called to the written statement by Dr. Bruce Fraser, head of Biology at Selkirk College, issued jointly with Professors Breckenridge, Ommundson & Wood, reported in the Nelson Daily News, April 24, 1970, requesting the use of defoliants be stopped, and reporting laboratory findings of foetal damage to living organisms.

- Your attention is also called to the extensive material and analysis set forth in the publication "DEFOLIANTS" published by Ballentine Co. which reflects the effect of defoliants on birth giving rise to worse abnormalities than the dreaded Thalidomide, including lack of heads, lack of eyes, cleft palate, etc. (p114, pg 7 thru 53)

- Your further attention is called to the fact that attempts to seek the cessation of defoliant usage at the Highway Department for this area were rebuffed, and representations were made that the defoliants in use were absolutely safe and had been adequately tested by the Highway Supervisor. The chemicals in use were 2,4,5 T and 24D in combination. The very chemicals that are being denounced by the scientific community both in this country and in the U. S.

- It cannot be disputed that the effects on humans and animals cannot be extensively tested except over a period of many years. Please bear in mind that DDT was considered "absolutely safe" for over 20 years and was even sprayed on human beings for body lice before it's deathly, cancerous, effects were assessed. No one of the provincial or governmental agencies are in a position to make or continue assurances of safety in the use of ANY defoliants when the ultimate

(*), (1), (2), (2a), (3) = see Addenda

ecological dangers have not been and are not presently assessable.

But even presuming such safety assurances could be made, based upon adequate and long range testing, your review of the highway margins, borders, right of way and power-line avenues in the Highway 6 area will reveal that there is NO economic advantage for the use of such defoliants since the evergreens are dead from five years previous spraying, and what remains is hip high bracken and the like. What rationale supports the use of public funds to cover two men and trucks for twice-yearly spraying, when the required clearance could be accomplished on a slash cut basis once every 4 to 5 years, with adequate cleanup through the use of an auger, with no resulting border of dead foliage.

- (3) Consider as well the continuance of this spraying procedure by the Highway department here upon creekbeds, streams, books, and roadside rivulents that empty into the lake, and over the village water intake systems. Consider as well the indiscriminate use of said defoliants along the scenic highway linking Kaslo to New Denver, particularly between Kaslo and 3 Forks, on the NORTH side of the road where there are no poles, no powerlines of any kind, no border, or even the remotest justifiable basis, leaving a smear of dead and dying shrubs.
- (3) The petitioners herein feel that the actions of the Highway Department in using these dangerous defoliants are in wanton disregard for the safety and health of all life situate in this area and we strongly protest the continuance of such usage with all the potential and unanalysable dangers such defoliants might engender.

The signor and petitioners hereby request the immediate cessation of the use of ALL defoliants and urgently solicit your cooperation in this regard. We would be greatly obliged for your advice as to what steps are taken within ten days, as the entire population of this area is deeply troubled by the continued usage of these herbicides.

(4) If an immediate cessation cannot be accomplished we will be required to take this matter up further in the public forums and in the media.

Trusting you will investigate the within issue at your earliest possible opportunity, I remain,

Very truly yours,

Jerome Jenks

Jerome Jenks,
on behalf of Petitioners

address: Jenks/Petitioners/ New Denver, B. C.

DEFOLIATION PETITION

A D D E N D A

- (*) Petition bears the names of 10 persons under 19 years of age who signed same without knowledge of the writer.
- (1) "DEFOLIATION" by Thomas Whiteside (Ballentine Books, N.Y. '70)
- See particularly "Statement of Dr. Arthur W. Galson, Professor of Biology & Lecturer in Forestry, Yale University, delivered before various subcommittees, House of Representatives, U. S.
- (2) See written statement issued by Dr. Bruce Fraser, Head of Biology, Selkirk University, Castlegar, issued jointly with Professors Breckenridge, Ommundson & Wood. (Nelson Daily News, April 24, 1970) calling for immediate cessation of defoliant usage by the Highway Department & B. C. Hydro.
- (2a) Secretary Udall, US. (May 2, 1964) during his endeavors to ban the use of pesticides that injured wildlife replied to Sec. Freeman who had stated it was "unwarranted to ban poisons about which too little is known" observed that the Freeman Doctrine amounted to "the less we know about a poison the freer you should feel to use it" (?) (New Yorker)
- (3) Specific demand by various citizens has been made directly upon the Supervisor of the Highway Department in New Denver (and thus upon the Highway Department for which he is agent and employee) to cease the further usage of all defoliants in this area. Notwithstanding such demands, both private and public (see 2 above) said supervisor has continued directing his employees to use such defoliants, spraying trees, bushes, waterways, highway margins, and areas NOT connected with highway margins as well, including the spraying of the birch trees at the Summitt Lake Campgrounds, the spraying of lawns and shrubs in New Denver where the cadets assemble and march, and children play (Govt. Reserve Block 132) spraying the private property (2 years damage) of Mrs. G. Rowe, village clerk of New Denver, and during June 1970, the spraying of beaver ponds, which spraying was photographed while in progress by a New Denver school teacher. These and innumerable other instances are excused by the Highway Supervisor as "accidents" but it is submitted that an "accident" or two, when this conduct began some years ago, might be understandable, but a continuous stream of "accidents", while ignoring demands for cessation, is inexcusable, virtually criminal, neglect, in wanton disregard for the health, safety and rights of the residents of this area.
- (4) Petitioners are prepared to air this entire matter in the media, to apply to the federal government for protection from the abusive and unconscionable practises of the Province, and to file suit against the Highway Department, employees, Supervisor & Minister, each individually and as agents for the other, and to seek punitive and exemplary damages. Expert testimony from scientists under subpoena, in support of petitioners, is anticipated.

P E T I T I O N

To the Honourable, the Minister of Highways, British Columbia

THE PETITIONERS do hereby request the Minister of Highways to stop the Highways Department from the further use of defoliants for the destruction of foliage along B. C. highways, and particularly along Highway 6 between Slocan and Nakusp.

There are three causes for concern:

1. There is considerable public controversy concerning the potential dangers of such defoliants to human beings, and to shrub, insect, animal and bird life.
2. Fear of pollution to brooks, streams and creekbeds over which these defoliants are sprayed
3. Dead foliage along the highway detracts from its natural beauty.

Jerry Bloomfield
Name

Hills
Address

Larry W. Jacks

New Denver

P. Stettan

" "

S. Stettan

" "

W. M. Gray

" "

Mrs. S. Rowe

New Denver

C. H. Uphill

" "

Robert Peters

"

A. Mac

J. Ray Nunn

"

Elizabeth M. Nunn

"

Ed. Stettan

"

Mr. Barney

"

G. de Nover

Silverton

2403

June 2, 1970.

Mr. Hans Manthe, President,
Trail Wildlife Association,
P.O. Box 266,
Trail, British Columbia.

Dear Mr. Manthe:

Re: Roadside Spraying

I acknowledge and thank you for your letter of May 11th (received here May 20th) regarding the use of 2,4,5-T for roadside spraying. Certain directions from the Department of Agriculture were issued recently which limit the use of 2,4,5-T. The Department of Highways, of course, will be observing these. However, at no time has it ever been used extensively in areas close to drainage ditches, recreation facilities or food crops. Use will probably be a little more limited now but both the U. S. Department of Agriculture and the Canadian Department of Agriculture have cleared the use of the chemical for ordinary roadside spraying.

Yours very truly,



Minister.

RJB/pan *pan*
2403/174610

Regional Highway Engineer
North Vancouver
Kamloops
Nelson
Prince George

Victoria
May 26, 1970.

2403

Restrictions in the Use of 2,4,5-T

Further to our teletype of May 14th in reference to the above subject, we have today received the attached memorandum reproduced by C. L. Neilson, Provincial Entomologist, Department of Agriculture, Victoria.

These restrictions will only affect the roadside spraying program in recreational areas such as picnic sites or campsites, or in situations where drinking water or irrigation water might become contaminated. The chemical should not be used where there is any doubt in the minds of the applicators that it may be a hazard to public health.

A short outline of the history and use of various chemical sprays has been prepared and a supply of these will be forwarded to you for distribution to District Officials in the near future.



Michael Pope,
Landscape Supervisor.



MP/jc

Regional Highway Engineer
North Vancouver
Kamloops
Nelson
Prince George

Victoria
May 25, 1970.

2403

**Use of Chemicals for Control of
Unwanted Weeds and Brush.**

Attached is a supply of copies of an outline of the history of the use of chemicals for the control of unwanted weeds and brush.

This has been compiled chiefly for the information of Regional and District Officials to assist them in their dealings with questions concerning the hazards to the health of humans and wildlife through the use of chemicals for vegetation control.

Appended to this outline are copies of correspondence regarding the most recent findings in the use of such controversial products as 2,4,5-T and Tordon. As further information is received by this office it will be forwarded to you for distribution.

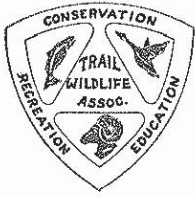
Would you please see that each District Official in your Region receives a copy of this outline.



Michael Pope,
Landscape Supervisor.



MP/jc



TRAIL WILDLIFE ASSOCIATION

2408

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

P.O. Box 266
Trail, B. C.
May 11, 1970

MAY 25 1970

ANSWERED *ylc par*
NOTED *ylc par*
DATE *June 2/70*

Mr. W. Black,
Minister of Highways,
Parliament Buildings,
Victoria, B.C.

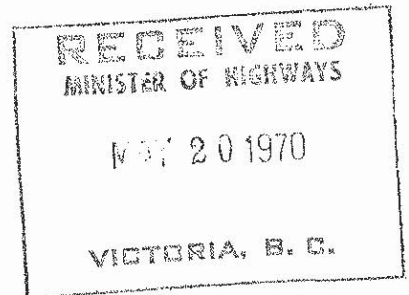
Dear Mr. Black;

The Trail Wildlife Association feels that since there is a great deal of controversy surrounding the use of 2-4-5-T for clearing brush it should be required of the users to provide proof of its' safety. 2-4-5-T appears to be a health hazard to mammals and is used extensively for clearing brush along the highways and pole lines, therefore we request that its' use be justified.

Yours truly,

Liam Manthe
President

HM:mb



174610

2403
Hon. Mr. Brothers
Hon. Mr. Loffmark
Hon. Mr. Williston

Mr. Pope, for your attention please
Would you want to send this
out to the Region at Nelson?

May 20, 1970.

Mr. W. B. Clover, Vice-President,
Kootenay Pollution Control Association,
c/o 1472 Lookout Street,
Trail, British Columbia.

Dear Mr. Clover:

Re: Herbicide 2,4,5-T

I acknowledge and thank you for your letter of May 8th together with the attached preamble and petition urging the curtailment of the use of 2,4,5-T and we appreciate your interest in this important subject.

The Department, of course, is aware that this chemical was recently banned in the United States, and now in Canada, for certain agricultural uses but was cleared for non-agricultural use such as roadside spraying. We realize that indiscriminate use of many products manufactured for domestic and commercial use can be harmful to humans if their use is not limited and controlled. Both ordinary table salt and aspirin are far more toxic than 2,4,5-T in similar amounts.

In any case we are working in close cooperation with the Department of Agriculture and any product used by the Department for weed control is studied and approved by an inter-departmental committee for the safe use of pesticides. In view of the partial restriction on 2,4,5-T, the Department will limit the use of it only to those methods, and in those amounts, suggested by the Federal Department of Agriculture.

In the meantime both the United States and Canadian authorities are conducting further experiments. The findings which led to the ban are somewhat inconclusive. In the meantime we appreciate receiving your comments and advice on the question.

Yours very truly,


Minister.

RJB/pan
2403.173754

May 19, 1970.

Attention: Mr. Gerald Mendieta

Green Valley Fertilizer & Chemical
Co. Ltd.,
12816 - 80th Ave.,
Box 249,
Surrey, British Columbia.

Dear Sirs:

Re: Weed and Brush Killer,
Kamloops

Confirming telephone conversation, today's date, will you please arrange to ship, as soon as possible, the following weed and brush killer to the Department of Highways, Kamloops, British Columbia:

135 gallons, 3 - 45-gal. drums, Type "A" weed killer,
2-4-D, to the Dept. of Highways, Kamloops, British
Columbia, Control No. 7.

1 - 45-gal. drum Type "B" weed and brush killer, 2-4-5-T,
to the Dept. of Highways, Kamloops, British Columbia,
Control No. 8.

Shipping advice and invoice in each instance to Mr. A.H. Dibben,
District Superintendent, Dept. of Highways, Kamloops, British Columbia.

Yours Truly,


A. E. Rhodes,
Comptroller of Expenditure.

the

2403

DISTRICT SUPERINTENDENT
KAMLOOPS

HQ FILE 2403

WEED ~~RR~~ KILLER AND SPRAY - KAMLOOPS

REF URTEL MAY 15TH 1970 3:39 PM ARRANGEMENTS MADE SAME DAY FOR THE
FOLLOWING:

175 GALS 7-25-GAL DRUMS OF TORDON 101 ~~BRUSH~~ KILLER TO THE DEPT OF
HIGHWAYS KAMLOOPS CONTROL #4 DOW CHECMICAL OF CANADA LTD 796
GRANVILLE ST VANCOUVER 2 B C

135 GALS 3-45 GAL DRUMS TYPE "A" WEED KILLER 2-4-D TO THE DEPT OF
HIGHWAYS KAMLOOPS CONTROL #7. GREEN VALLEY FERTILIZER & CHEMICAL CO
LTD 12816 -80TH AVE POX 249 SURREY B C

1-45-GAL DRUM TYPE "B" WEED AND BRUSH KILLER 2-4-5-T TO THE DEPT OF
HIGHWAYS KAMLOOPS CONTROL #8. GREEN VALLEY FERTILIZER & CHEMICAL CO
LTD 12816-80TH AVE BOX 249 SURREY B C

200 LBS OF SIMAZINE 4-50 LB DRUMS TO THE DEPT OF HIGHWAYS KAMLOOPS
CONTROL #2. HARRISONS AND CROSFIELD (CANADA) LTD 375 TERMINAL AVE
VANCOUVER 127 B C

200 LBS HYVAR X BROMACIL SOIL STERILANT WEED KILLER TO THE DEPT OF
HIGHWAYS 4-50 LB DRUMS CONTROL #1. THE B A CHECKX CHEMICAL CO LTD
8321 WILLARD AVE BURNABY 3 B C.

IN ALL THE ABOVE INSTANCES SHIPPING ADVICE AND INVOICE TO YOURSELF
AT KAMLOOPS.

A E RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
MAY 19 1970
4:03 PM
OK KAM

May 15, 1970.

Attention: Mr. Gerald Mendieta

Green Valley Fertilizer & Chemical
Co. Ltd.,
12816 - 80th Ave.,
Box 249,
Surrey, British Columbia.

Dear Sirs:

Re: Weed and Brush Killer, Cranbrook

Confirming telephone conversation of May 15th, please arrange for immediate shipment of 180 gallons of weed and brush killer to the Department of Highways, Cranbrook, as follows:

135 gallons (3 - 45-gal. drums) of Type "A" weed killer, 2-4-D, and one 45-gallon drum of Type "C" brush killer, 2-4-5-T. The whole covered by Control No. 5. Shipping advice and invoice to Mr. G.K. Austin, District Superintendent, Dept. of Highways, Cranbrook, British Columbia.

Yours truly,


G. E. Rhodes,
Comptroller of Expenditure.

JAL:he

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 15 1970

2403

A E RHODES
COMPTROLLER OF EXPENDITURE
DEPT OF HWYS
VICTORIA

ANSWERED... *78*
NOTED...
DATE... *May 19 1970*

SUBJ. WEED KILLER AND SPRAY.

WOULD YOU PLEASE ARRANGE FOR SHIPMENT OF THE FOLLOWING WEED KILLER
TO DEPT OF HIGHWAYS , KAMLOOPS B C , AS SOONAS POSSIBLE , BEST WAY
POSSIBLE.

1. 180 GALLONS OF TORDON 101 BRUSH KILLER.

2. 135 GALLONS OF 2-4-D WEED KILLER.

3. 45 GALLONS OF 245T BRUSH KILLER

4. 200 LBS. OF SIMAZINE

5. 200 LBS. OF HYVAR X BROMACIL.

A H DIBBEN

DISTRICT SUPT

KAMLOOPS
MAY 15/70.
339. 0 .
MSGE RCD VIC

174039

2403

REGIONAL OFFICE MANAGER
NELSON

HQ FILE 2403

WEED AND BRUSH KILLER NELSON CRANBROOK AND NEW DENVER

REF URTEL MAY 14TH 3:58 PM YOUR FILE R3-80-49 ARRANGEMENTS MADE
TODAY WITH GREEN VALLEY FERTILIZER & CHEMICAL CO LTD BOX 249 SURREY
B C TO SHIP ~~XX~~ 135 GALLONS (3-45 GAL DRUMS) OF TYPE "A" WEED KILLER
2-4-D AND ONE 45 GAL DRUM OF TYPE "C" BRUSH KILLER 2-4-5-T TO
CRANBROOK. THE WHOLE COVERED BY CONTROL #5. SHIPPING ADVICE AND
~~XXXX~~ INVOICE DIRECT TO G K AUSTIN AT CNXX CRANBROOK.

ARRANGEMENTS ~~XXXX~~ ALSO MADE WITH DOW CHEMICAL OF CANADA LTD 796
GRANVILLE ST VANCOUVER 2 B C TO SHIP THE FOLLOWING TORDON 101
BRUSH KILLER:

2 - 25 GAL DRUMS TO NELSON CONTROL #1. SHIPPING ADVICE AND INVOICE
TO G R KENT.

1 - 25 GAL DRUM TO CRANBROOK CONTROL #2. SHIPPING ADVICE AND INVOICE
TO G K AUSTIN.

1 - 25 GAL DRUM TO NEW DENVER CONTROL #3. SHIPPING ADVICE AND INVOICE
TO D C WESTAWAY.

A E RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
MAY 15 1970
3:00 PM
MSGC RCD NELSON

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA

MAY 14 1970

24/03

ATTENTION - MR J A INGRAM

ANSWERED.....
NOTED.....
DATE.....

PLEASE ARRANGE THE FOLLOWING SHIPMENT

1. 50 GALLONS 2 - 25 GALLON DRUMS OF TORDON 101 BRUSH KILLER FOR
DELIVERY TO NELSON. SHIPPING ADVICE AND INVOICE TO *Control #1*
DISTRICT SUPT, NELSON
2. 135 GALLONS 3-45 GALLON DRUMS OF TYPE A 2-4-D WEED KILLER } *Control #5*
45 GALLONS 1 - 45 GALLON DRUM OF TYPE C 2-4-5T BRUSH KILLER
25 GALLONS 1 - 25 GALLON DRUM OF TORDON 101 BRUSH KILLER *Control #2*
DELIVER TO CRANBROOK. SHIPPING ADVICE AND INVOICE TO
DISTRICT SUPT, CRANBROOK
3. 25 GALLONS 1 - 25 GALLON DRUM TORDON 101 BRUSH KILLER *Control #3*
DELIVER TO NEW DENVER. SHIPPING ADVICE AND INVOICE TO DISTRICT
SUPERINTENDENT, NEW DENVER

S J DIXEY
REGIONAL OFFICE MANAGER

R3-80-49

NELSON
MAY 14, 1970
3:58 P M
MSG RCDVIC

173906

2403

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 13 1970

ANSWERED *hjh pnn*
NOTED
DATE *May 21/70*

Kootenay Pollution Control Association,
c/o 1472 Lookout Street,
Trail, B. C.,
May 8, 1970.

Hon. Wesley Black,
Minister of Highways,
Parliament Buildings,
Victoria, B. C.

RECEIVED
MINISTER OF HIGHWAYS

MAY 11 1970

VICTORIA, B. C.

Dear Sir:

Our association has been informed that our telegram of April 24, 1970 to Hon. Donald Brothers expressing our concern about the use of the herbicide 2, 4, 5-T, has been referred to your department. Consequently, we are forwarding directly to you the attached petition signed by over seven hundred concerned citizens in the Rossland-Trail area in the past two weeks.

In view of the fact that the Highways Dept. will be initiating its annual spraying program in the very near future, we hope that you will take immediate action to curtail the use of 2, 4, 5-T until its complete safety can be guaranteed.

Please reply, advising what action your department intends to undertake.

Yours sincerely,

W. B. Clover

W. B. Clover,
Vice-President

cc: Hon. Donald Brothers
Dr. R. A. Chapman
Randolf Harding, Esq.
Hon. Ralph Loffmark
Hon. Ray Williston

173764

KOOTENAY POLLUTION CONTROL ASSOCIATION

2, 4, 5-T PETITION

We, the undersigned, protest the introduction of 2, 4, 5-T into our environment as part of the roadside spraying programme of the B.C. Highways Dept. Recent studies by the Bionetics Research Laboratories, Washington, D.C. for the National Cancer Institute, by the National Institute for Environmental Health Studies of the U.S. Public Health Service, and by the Canadian Food & Drug Directorate showed that the herbicide 2, 4, 5-T caused birth defects in test mammals, usually rats.

On the basis of these results, it is obvious that continued use of 2, 4, 5-T as a chemical which is widespread in the environment and over which the individual has no direct personal control, is highly suspect. We feel that the burden of proof for the safety of such chemicals must lie with the user and not with the public. We, therefore, support the Kootenay Pollution Control Association in requesting that this herbicide be removed from the roadside spraying programme until its safety can be guaranteed.

<u>NAME</u>	<u>ADDRESS</u>	<u>SIGNATURE</u>
Bellitto cent De Kito		B.K. Bellitto Vincent De Kito
I. Bylin		I. Bylin
John Nekleson		John Nekleson
Sacchetto		Sacchetto
Pattem		
Le Fork.		
Hansen		
Ellison		Robert L. Allison
Antor		Antor
Harmon		Harmon

S22

Regional Highway Engineer
North Vancouver
Kamloops
Nelson
Prince George

Victoria
May 7, 1970.

2403

Regional Maintenance Engineer

Ordering Weed and Brush
Control Chemicals.

Would you please advise all District Officials that when they request delivery of any of their requirements for weed and brush control chemicals that they order not less than two drums at a time. This need not be for one type alone; if desired they can order one drum of 2,4-D and one of the 50:50 mixture 2,4-D and 2,4,5-T.

The reason for this is that the freight rates are considerably higher if the order is under 1,000 pounds and the supplier would be unable to deliver smaller quantities at his bid price.


Michael Pope,
Landscape Supervisor.


MR/jc

c.c. Comptroller of Expenditure
Attn: W. Ingram

2403

May 6, 1970.

Mrs. H. Carlson,
The Kaslo Garden Club,
Kaslo, British Columbia.

Dear Mrs. Carlson:

Re: Roadside Spraying

I acknowledge and thank you for the petition of April 24th signed by yourself and a number of members of your club regarding roadside spraying and I am enclosing for your information a copy of a recent press release issued in the Nelson area.

Experiments with 2,4,5-T in the United States were somewhat inconclusive despite the partial ban issued by the United States Department of Agriculture which, incidentally, did not restrict the use of 2,4,5-T for roadside spraying on highways, public parks and other non-agricultural areas. One of the main concerns in the United States was the use of this product as a growth regulator directly on fruit to prevent apple drop and to enhance the colour. A residue in this use might well be consumed by both animals and humans. No such result is likely from restricted and limited use of the product for spraying weeds along the roadside well away from any populated or food growing areas. As gardeners, your group is undoubtedly familiar with 2,4-D which the members have likely used a number of times on their own lawns. 2,4,5-T is similar only much stronger. In any case we appreciate your interest in this subject and the Department is well aware of the possible effects of this and other chemicals sprays and has taken steps to obtain all the latest data on them.

Yours very truly,


Minister.

RJB/pan 
2403/172962 492

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

2403

1970
ANSW. *C. J. W. per*
NOTED
DATE *May 8/70*

The Kaslo Garden Club
Kaslo, B. C.
April 24, 1970

RECEIVED
MINISTER OF HIGHWAYS

MAY 1 1970

VICTORIA, B. C.

Mr. Wesley Black
Minister of Highways
Victoria, B. C.

Dear Mr. Black

It has come to our attention that a highway spraying programme is due to commence in the Kaslo area. We understand that the spray that is used contains the chemical 2, 4, 5-T. In view of the possible birth defects in mammals which this chemical has been shown to cause we vehemently protest its use and urge adoption of a method of brush clearing which will not further pollute our environment.

Yours truly

Hugh Eto
St. A. Peacock
Agnes Ringel
M. G. Stanley
H. & Singel
K. Woodley
Sara Connors
Claude R. Hockstern
Jean O. Boland
Betty G. Eton

Mrs. H. Carlson
S. Rooney
J. Rooney
J. Butler
Walter P. Butler
M. J. Edwards
M. J. Edwards
Frances E. M. Bildstein
Lillian McNaugall
Helen Morphet
J. Peacock

172492

2403

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAY 1 - 1970

The Kaslo Garden Club
Kaslo, B. C.
April 24, 1970

RECEIVED
NOTED
DATE

Mr. Thomas Miard
Deputy Minister of Highways
Victoria, B. C.

Dear Mr. Miard

It has come to our attention that a highway spraying programme is due to commence in the Kaslo area. We understand that the spray that is used contains the chemical 2, 4, 5-T. In view of the possible birth defects in mammals which this chemical has been shown to cause, we vehemently protest its use and urge adoption of a method of brush clearing which will not further pollute our environment.

Yours truly

Leatherstocking
Mrs. Singel
M. G. Stanley
& Singel
Conrow
Woodley
R. Holstrom
A. Boland
Eaton
W. Douglas

Mrs. H. Carlson
J. Rooney
J. Rooney
J. Butler
Walter P. Butler
A. Edwards
M. I. Edwards
Frances C. M. Bildstein
Lillian McLaughlin
Helen Morphet
J. Seachwood

172416

April 30, 1970.

Mr. R. R. O'Genski,
Secretary,
Castlegar & District
Chamber of Commerce,
Box 842,
Castlegar, British Columbia.

Dear Sir:

This will acknowledge and thank you for your letter of April 10th addressed to Mr. H. T. Miard, Deputy Minister, regarding the use of 2,4,5-T by this Department. The letter has been forwarded to this office for reply.

The use of 2,4,5-T has only been banned for certain uses in the United States but has been cleared for non-agricultural use such as roadsides. At the present time there are no restrictions in Canada. We are working in close cooperation with the Department of Agriculture in this matter and our use of the product is with the knowledge and approval of the Interdepartmental Committee for the Safe Use of Pesticides.

Please rest assured that if 2,4,5-T is banned in Canada we will be amongst the first to know about it and shall act accordingly.

Yours very truly,



Michael Pope,
Landscape Supervisor.



MP/jc

Copy for the information of the Hon. W. D. Black

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

APR 29 1970

ANSWERED.....
NOTED.....
DATE.....



VICTORIA

April 27th, 1970.

Mr. M. Roscoe,
Secretary, Trail Branch,
West Kootenay Pollution Control Association,
3471 Aster Drive,
Trail, B. C

RECEIVED
MINISTER OF HIGHWAYS

APR 29 1970

VICTORIA, B. C.

Dear Mr. Roscoe:

Thank you for your telegram expressing the concern of the Trail Branch of the West Kootenay Pollution Control Association with regard to the herbicide 2,4,5-T.

I have forwarded a copy of your telegram to my colleagues, the Minister of Agriculture, the Minister of Lands, Forests, & Water Resources, and the Minister of Highways, and also to the Chairman of the Pollution Control Board, so that they will be aware of the representation made by your group.

Yours sincerely,

D. L. Brothers

D. L. Brothers,
Minister of Education.

172219

*Canadian Pacific*

TELEGRAM

local time

JRAC36 83/77 7 EX RL

CPT TRAIL EC 24

LONALL BROTHERS ELA

PARLIAMENT ELLOS VICTORIA EC

THE MEMBERSHIP OF THE WEST KOOTENAY CONTROL ASSOCIATION TRAIL
ELKACH ARE DEEPLY CONCERNED ABOUT THE USE OF HERBICIDE 24BT
ALONG HIGHWAY RIGHT OF WAYS POWER LINES AND THE FORTY NINTH
PARALLEL FOR WEED CONTROL IN OUR AREA.

~~YES~~

120886

B.C. DEPARTMENT OF HIGHWAYS
NELSON REGION
1970
CHEMICAL WEED AND BRUSH CONTROL
WORKSHOP
APRIL 21st - 23rd INCLUSIVE

A G E N D A

Tuesday, April 21st

8:30 - 9:00 Introduction

Chairman - A.J. Bodnarchuk
- R.G. White, Regional Highway Engineer
- M.N. Pope, Senior Landscape Supervisor
- B. Vance, Pesticide Officer,
Department of Agriculture

9:00 - 9:30 Weeds and Chemicals
(Preamble)

- J. Milroy, B.C. Forest Service
- T. Berry, B.C. Dept. of Agriculture

9:30 - 10:30 Weeds

- E.C. Hughes, Field Crops Specialist,
B.C. Dept. of Agriculture.

10:30 - 12:00 Chemicals

- E.C. Hughes

- Bee Poisoning - Provincial Apiarist.

1:00 - 2:30 Chemicals (Continued)

- Fisons - Simazine, Atrazine
- B.A. Chemical- 2,4-D, 2,4,5-T, Hyvar X
- Green Cross - Visko-Rhap
- Dow Chemicals - Tordon

Resume

- E.C. Hughes

2:30 - 5:00 Application

- Ed Greene, Vegetation Management Associates

- M. Pope
- J. King, B.C. Forest Service.

Wednesday, April 22nd

8:30 - 9:30 Knapweed Control

Chairman - C.S. Shaw
- T. Berry, W. Georzen,
B.C. Dept. of Agriculture

9:30 - 10:30 Public Relations

- P.B. MacCarthy, Regional Maintenance Engineer
- M. Pope
- J. Milroy, Jack King

10:30 - 12:00 Spray Machines

- John Bean, Representative
- H.O. George, Regional Mechanical Superintendent

1:00 - 2:30 Spray Machines

- Continued
- Calibration - W. Georzen

2:30 - 5:00 Spray Machines

Demonstrate - Operation
- Calibration.

Continued

Chemical Weed and Brush Control
Workshop,
April 21st - 23rd Inclusive.

Page Two.

Thursday, April 23rd

8:30 - 9:30 Daily Records

- A.J. Bodnarchuk
- M. Pope

9:30 - 12:00 Examination

- Bayne Vance, Pesticide Officer

1:00 - 4:00 Field Demonstrations

- Calibration
- Application

Chemical Suppliers.

* * * * *

Castlegar & District Chamber of Commerce

2403

At the Confluence of the Columbia and Kootenay Rivers

TRANSPORTATION
C.P.R. KETTLE VALLEY
RAILROAD
SOUTHERN TRANSPROVINCIAL
HIGHWAY
CANADIAN PACIFIC AIRLINES
(DAILY SERVICE)

BOX 842, CASTLEGAR, B. C.

ELEVATION -- 1450 FT.
AREA POP. -- 10,000

April 10, 1970

April 29/70

Department of Highways.
Parliament Buildings
Victoria, B. C.

Attention Mr. H. T. Miard
Deputy Minister

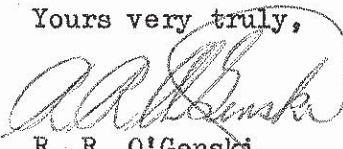
Dear Sir:

It has been brought to our attention that your Department is using a herbicide called 245-T for weed control on the highway right-of-ways.

It is the understanding of the Chamber that the use of this has been discontinued in most parts of the United States due to the apparent effects it has on cattle, etc.

It would sincerely be appreciated if your Department would investigate this further and advise us of your findings, and should this be detrimental, we would assume its use would be discontinued.

Yours very truly,


R. R. O'Genski
Secretary
CASTLEGAR & DISTRICT
CHAMBER OF COMMERCE

RRO'G:fr

c.c. Mr. B. K. Macalister

170550

March 20, 1970.

Attention: Mr. J.A. Miller

The B. A. Chemical Co. Ltd.,
8321 Willard Ave.,
Burnaby 3, British Columbia.

Dear Sirs:

Re: Weed and Brush Killer,
Penticton


Confirming telephone conversation of March 20th, please arrange to ship immediately and invoice in March the following weed and brush killer:

180 gallons (4 - 45-gal. drums) Type "A" (2-4-D)
weed killer,

90 gallons (2 - 45-gal. drums) Type "C" (2-4-5-T)
brush killer,

the whole covered by Control No. 25 with shipping advice and invoice to Mr. J.H. Pankiw, District Engineer, Department of Highways, Penticton, British Columbia.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI:he

2403

DISTRICT ENGINEER
PENTICTON

HQ FILE 2403

WEED & BRUSH KILLER

CONFIRMING TELEPHONE CONVERSATION OF MARCH 20TH ARRANGEMENTS MADE
SAME DAY WITH THE B A CHEMICAL CO LTD 8321 WILLARD AVE BURNABY 3
TO SHIP 180 GALLONS (4-45 GALLON DRUMS) TYPE "A" WEED KILLER (2-4-D)
AND 90 GALLONS (2-45 GALLON DRUMS) TYPE "C" BRUSH KILLER (2-4-5-T)
COVERED BY CONTROL #25. THE FIRM WILL SHIP IMMEDIATELY AND INVOICING
WILL BE IN MARCH DIRECT TO YOURSELF.

THE FIRM HAVE POINTED OUT THEIR BILLING DATE CLOSES MARCH 26TH SO
ANY FURTHER ORDERS THAT YOU MAY REQUIRE SHOULD BE PHONED IN PRIOR TO
MARCH 26TH TO ENABLE BILLING TO BE IN THE MONTH OF MARCH.

AE RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
MAR 20 1970
3:44 PM
OK AM

March 17, 1970.

Mr. C. L. Neilson,
Provincial Entomologist,
Department of Agriculture,
Buildings.

Dear Mr. Neilson:

Re: Interdepartmental Pesticide Committee.

Attached is a brief report on the current use of pesticides as used by the Department of Highways in the control of weeds and brush within the highway rights-of-way under the jurisdiction of this Department.

Yours very truly,



Michael Pope,
Landscape Supervisor.

MP/jc

REVIEW OF THE CURRENT USE OF PESTICIDES FOR WEED AND BRUSH CONTROL BY
THE DEPARTMENT OF HIGHWAYS

Up to the present date the Department has been using the iso-octyl esters of 2,4-D, 2,4,5-T, and a 50-50 mixture of the two, for weed and brush control throughout the Province. For use as a sterilant on road shoulders, around sign posts and along guard rails, Simazine 50W has been used almost exclusively.

The following shows a comparison of weed control chemicals used in the 1969-70 fiscal year as compared to that requisitioned for the 1970-71 fiscal year:

	<u>64 oz. 2,4-D</u>	<u>32 oz. 2,4-D + 32 oz. 2,4,5-T</u>	<u>64 oz. 2,4,5-T</u>
1969-70	1,620 gallons	4,680 gallons	3,825 gallons
1970-71	1,485 "	4,585 "	720 "
	<u>Tordon 101</u>	<u>Simazine 50W</u>	<u>Hyvar X</u>
1969-70	---	24,150 lbs.	---
1970-71	1,400 gallons	30,000 "	1,000 lbs.

On April 21, 22 and 23, 1970, a Field Crew Workshop is being held in Nelson and will be attended by District Officials and spray applicators from the Department of Highways in that Region. Subsequent meetings will be held in the other three Regions of the Province at a later date.

Subjects being covered are as follows:

Weeds - identification
- threat potential
- treatment required

Chemicals - how they work
- how to use them safely
- toxicity to animals, birds and insects
- use of particular chemicals for varying conditions

Application - part of right-of-way to be treated
- height of growth to be treated
- methods for - hand guns
 - basal spraying
 - broadcasting (pellets)
- spray drift control

REVIEW OF THE CURRENT USE OF PESTICIDES FOR WEED AND BRUSH CONTROL BY

THE DEPARTMENT OF HIGHWAYS

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- use of particular chemicals for varying conditions

Application - part of right-of-way to be treated
- height of growth to be treated
- methods for - hand guns
- basal spraying
- broadcasting (pellets)
- spray drift control

Spray machines - detailed operation and maintenance
- calibration
- use of particular nozzles
- field demonstration

Daily records - accurate log of area treated
- chemical used
- quantity
- weather conditions

Knapweed control - method
- locations

Public relations - use of accurate information on chemicals used
- why it is necessary to treat roadsides
- complaints

Applicator's Licence - examinations

Applicator's work schedule - responsibilities
- direction
- wages

Demonstrations of equipment, etc.

The Department has not used any of the chlorinated hydrocarbons and has no plans to do so in the future. To date we have used no chemicals for insect control but we may have to use a product such as Diazinon for the control of Leather Jackets if the roadside grasses become infested on the Lower Mainland.

By the end of this year we hope to have all our applicators licenced by the Department of Agriculture.

The foregoing briefly outlines the use of herbicides for the control of weeds and brush by the Department of Highways.

Michael Pope,
Landscape Supervisor,
Department of Highways.

March 4th, 1970.

Attention: Mr. J.A. Miller

The B. A. Chemical Co. Ltd.,
8321 Willard Ave.,
Burnaby 3, British Columbia.

Dear Sirs:

Re: Weed and Brush Killer,
New Denver

Confirming telephone conversation of March 3rd, please arrange to ship, as soon as possible, the following weed and brush killer to the Department of Highways, New Denver, covered by Control No. 24:


135 gallons (3 - 45-gal. drums) Type "A"
weed killer, 2-4-D.

180 gallons (4 - 45-gal. drums) Type "B"
weed and brush killer, 2-4-D plus 2-4-5-T.

225 gallons (5 - 45-gal. drums) Type "C"
brush killer, 2-4-5-T.

Shipping advice and invoice to Mr. D.C. Westaway, District Superintendent, Department of Highways, New Denver, British Columbia.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI:he

February 20th, 1970.

Attention: Mr. J.A. Miller

The B. A. Chemical Co. Ltd.,
6321 Willard Ave.,
Burnaby 3, British Columbia.

Dear Sirs:

Re: Weed and Brush Killer,
Grand Forks

Confirming telephone conversation of February 20th, please arrange to ship 450 gallons of weed and brush killer as follows to the Department of Highways, Grand Forks, Control No. 21. Shipping advice and invoice to Mr. R.M. McMillan, District Superintendent, Dept. of Highways, Grand Forks, British Columbia.

90 gallons (2 - 45-gallon drums) Type "A" weed
killer, 2-4-D.

90 gallons (2 - 45-gallon drums) Type "B" weed
and brush killer, 2-4-D plus 2-4-5-T.

270 gallons (6 - 45-gallon drums) Type "C" brush
killer, 2-4-5-T.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI:hc

2403

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

FEB 20 1970

ANSWERED.....
NOTED.....
DATE..... 20/2/70

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA

ATTENTION MR J A INGRAM

PLEASE ARRANGE SHIPMENT OF

90 2 ONLY 45 GALLON DRUM TYPE A WEED KILLER 2-4-D

90 2 ONLY 45 GALLON DRUMS TYPE B WEED AND BRUSH KILLER 2-4-D PLUS
2-4-5T

210
450
6 ONLY 45 GALLON DRUMS TYPE C BRUSH KILLER 2-4-5-XXX2-4-5T
FOR DELIVERY TO GRAND FORKS

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPT GRAND FORKS

R3-80-49

S J DIXEY
REGIONAL OFFICE MANAGER

NELSON
FEBRUARY 20, 1970
11:38 A M
MSGC RCD VIC

Control # 21

165352

MEMORANDUM

2403

TO Mr. R. J. Baines,
Administrative Officer,
Department of Highways,

RECEIVED FROM
DEPT. OF HIGHWAYS
VICTORIA, B. C.

Insurance & Claims Officer,

BUILDINGS

SEP 17 1969

September 16th,

1969

SUBJECT: Damage to Bee Hives
Claimant : S22

NEWCLERK

C-723

2403

OUR FILE

YOUR FILE -do-

I refer to your letter of July 24th, 1969, addressed to Mr. Munch, at Taghum, British Columbia.

Mr. J. Corner, Provincial Apiarist, at Vernon, was requested to provide information as to whether the mixture used (2,4-D and 2,45T) would be harmful to bees, and photo copies of his reply are herewith. You will note therein that not only is it unlikely that the spray applied by the Department would kill the bees, but he also took the trouble to dispatch an inspector to check on Mr. Munch's apiary.

I was through the area last month and think that the colonies in question were located considerably more than 50 yards from the highway. The spray applied had affected only a narrow strip of weed along the highway shoulder, this strip being a maximum of 5 or 6 feet in width, and the growth in the intervening space to Mr. Munch's property was not affected at all. Our District Official, Mr. Kent, suspected that the bees which Mr. Munch has lost probably died during the winter, and I am inclined to agree with him.

The conclusion is that if the bees were affected by the spray in any way, this would not have resulted in their death, and I am not prepared to recommend that any consideration be given.



G.A. Gavin,
Insurance & Claims Officer

GAC:MK
ENCL.



150674

August 22nd, 1958

Mr. A. A. Davis
Insurance & Claims Officer
Government of British Columbia
Parliament Buildings
Victoria, B.C.

Dear Mr. Davis:

Re: Damage to Bee Hives
Claimant: s. 22(1)
Your File No. 2403

I acknowledge your letter of August 11th in which you
bring to my attention a letter received from the Honourable Minister
of Highways, dated Feb. 22, 1958, British Columbia. I note
S22 that a number of his bee colonies were killed as a
result of weed spraying carried out by the Department of Highways.

In answer to your specific enquiry concerning the
use of 2,4-D and 2,4,5-T, I am of the opinion that if this was the
mixture that was used, then it would not be hazardous to any colony
of bees. Upon receipt of your letter I telephoned Dr. Carl Johansen
who is an authority on bee poisoning but unfortunately he was out of
his office and not expected back for at least one week. I am sending
you a copy of his most recent publication 'The Bee Poisoning Hazard
From Pesticides', publication 709 and if you will refer to page 2, you
will note that I have underlined several paragraphs dealing with this
subject.

For your information I dispatched an inspector to
inspect on s. 22(1) apiary. He arrived on August 18th at s. 22(1)
and made two attempts to talk to s. 22(1) at 4:00 p.m. and 7:00 p.m.
that same day, unsuccessfully. He again tried on August 19th and as
s. 22(1) was still not home, he proceeded with his inspection.

s. 22(1) owns six colonies and the condition of
these colonies is as follows:

'There were six hives in his yard. Two of these were
without bees, apparently having died during the winter. I found the

Continued 2/

Mr. G. A. Cavin
August 22nd, 1969
Page 2

other four colonies as follows:

One colony with twenty frames of bees and 120 pounds of honey
One colony with fifteen frames of bees and 75 pounds of honey
One colony with ten frames of bees and 50 pounds of honey
One colony with eight frames of bees and 30 pounds of honey

There were no dead bees in front of entrances, whether or not; these colonies were strong in July, would be difficult to prove at this time."

"P.S. s. 22(1) colonies were located approximately fifty yards from the highway."

Finally I would like to state that in my years of experience with both federal and provincial Departments of Agriculture, at which time I have been constantly associated with beekeeping, we have never encountered any situation where colonies have been completely destroyed as a result of herbicide applications. As Dr. Johansen points out in his publication, the major problem we have experienced has been the damaging effect of herbicides on bee pastures. Dr. Johansen points out that some investigators have demonstrated honeybee injury from 2,4-D type materials in large scale field conditions, but since we have not encountered any indisputable evidence of such a case.

If you want to telephone Dr. Johansen, or write to him, his address and telephone number is as follows:

Dr. Carl Johansen
Department of Entomology
Washington State University
Pullman, Washington, U.S.A.

Phone: 335-3564

I trust this information will be helpful and if you require further assistance, please do not hesitate to write.

Yours very truly,

J. Corner,
Provincial Apiarist

JC:jp
Encl. 1

August 5th, 1969.

Attention: Mr. J.A. (Alex) Miller

The B. A. Chemical Co. Ltd.,
8321 Willard Ave.,
Burnaby 3, British Columbia.

Dear Sirs:

Re: Weed and Brush Killer,
Grand Forks

Confirming telephone conversation, today's date, please arrange to ship, as soon as possible, 180 gallons of weed and brush killer to the Department of Highways, Grand Forks, as follows:

One - 45-gallon drum Type "A" weed killer, 2-4-D.

One - 45-gallon drum Type "B" weed and brush killer,
2-4-D, plus 2-4-5-T.

Two - 45-gallon drums Type "C" brush killer, 2-4-5-T.

The whole order covered by Control No. 17. Shipping advice and invoice to Mr. R.M. McMillan, District Superintendent, Department of Highways, Grand Forks, British Columbia.

Yours truly,


A.E. Rhodes,
Comptroller of Expenditure.

JAI:he

2403

REGIONAL OFFICE MANAGER
DEPT OF HIGHWAYS
NELSON

WEED AND BRUSH KILLER - GRAND FORKS

REFERENCE URTEL AUG 4TH 1:19 PM YOUR FILE R3-80-49 ARRANGEMENTS
MADE TODAY WITH THE B A CHEMICAL CO LTD 8321 WILLARD AVE BURNABY
TO SHIP 180 GALLONS OF WEED AND BRUSH KILLER TO GRAND FORKS AS
K
FOLLOWS:

ONE 45 GALLON DRUM TYPE "A" WEED KILLER 2-4-D

ONE 45 GALLON DRUM TYPE "B" WEED AND BRUSH KILLER 2-4-D PLUS ~~2-4-5-T~~
2-4-5-T

TWO 45 GALLON DRUMS TYPE "C" BRUSH KILLER 2-4-5-T

THE WHOLE COVERED BY CONTROL #17 WITH SHIPPING ADVICE AND INVOICE
DIRECT TO R M CMILLAN.

XX

A E RHODES
COMPTROLLER OF EXPENDITURE

HQ FILE 2403
VICTORIA
MM AUG 5 1969
11:47 AM
MSG FCD NELSON

2403
RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

AUG 4 1969

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA

ANSWERED.....
NOTED.....
DATE..... 8/8/69

ATTENTION - MR J A INGRAM

PLEASE ARRANGE TO SHIP THE FOLLOWING MATERIAL

1 ONLY 45 GALLON DRUM 3 2-4-D TYPE "A" WEED SPRAY

1 ONLY 45 GALLON DRUM 2-4-D AND 2-4-5T TYPE "B" WEED AND BRUSH
KILLER

2 ONLY 45 GALLON DRUMS 2-4-5T BRUSH KILLER

FOR SHIPMENT TO GRAND FORKS

SHIPPING ADVISE AND INVOICE TO DISTRICT SUPERINTENDENT, GRAND FORKS
BRITISH COLUMBIA

S J DIXEY
REGIONAL OFFICE MANAGER

R3-80-49

NELSON B C
AUGUST 4, 1969
1:19 P M
MSGE RCD VIC

145817

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

2403

MR A E RHODES
COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA

MAY 25 1971

ANSWERED.....
NOTED.....
DATE.....

ATTENTION - MR J A INGRAM

PLEASE ARRANGE SHIPMENT OF FOLLOWING MATERIALS TO DEPT OF HIGHWAYS
ROSSLAND

P O 946994

X 6 ONLY 45 GAL DRUMS WEED-BRUSH KILLER TYPE A

Control #2

6 ONLY 45 GAL DRUMS WEED-BRUSH KILLER TYPE B

cancel.

P O 948397

X 1 GAL XYOL - Control #1

P O 948524

X 10 GAL WESTOKLEEN - Control #2

P O 948399

X 10 GAL TIMBERLOX #4061 BXX CONCENTRATE

Control #1

P O 949612

- 5 GAL MIRA-SOL - Control #2

D R GODFREY
DISTRICT OFFICE MANAGER

NELSON
MAY 25, 1971
10:55 A M
MSGC RCD VIC

206873

AMC DAY

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

21103

MR A E RHODES
COMPTROLLER OF EXPENDITUE
DEPT OF HIGHWAYS
VICTORIA

MAY 25 1971

ANSWERED
NOTED
DATE

ATTENTION - MR J A INGRAM

RE MY TELETYPE OF TODAY'S DATE 10:55 A M

PLEASE CANCEL UNDER P O 946994

6 ONLY 45 GAL DRUMS WEED-BRUSH KILLER TYPE B

D R GODFREY
DISTRICT OFFICE MANAGER

NELSON
MAY 25, 1971
11:53 A M
MSGC CD VIC

206911

S A F E U S E

O F

P E S T I C I D E S

* * *

Prepared By:
Norman F. Putnam
Field Crops Commissioner
British Columbia Department of Agriculture
May 31, 1971.

SAFE USE OF PESTICIDES

Many people are increasingly concerned over the use of pesticides in our environment particularly to control food-crop pests, as well as those around homes, campsites, and in the forest. The effect of man's activities on his environment is no longer of concern solely to conservationists, ecologists and earth scientists. In the view of many, the issue has become one that concerns the health and future survival of us all. Many current statements on this problem, however, are based on atypical information or on no facts at all.

This expressed anxiety has, on the other hand, moved scientists to more carefully assess the facts at hand, and try to obtain all needed information on the changing environment. This is especially true with the use of pesticides.

The increasing concern of the general public over the use of pesticides was probably first aroused by Rachel Carson's book, "Silent Spring". The detection of DDT residues in animals, birds and fish over a wide range of environments has also added to the alarm. More recently the publicity over the use of 2,4,5-T for defoliation in Vietnam resulting in restrictions on its use in the United States and Canada, have all tended to alert the public to the dangers of pesticides.

The intense controversy over their use has extended beyond the realm of sound judgement and reason, past factual data and information. It has become involved in the whole problem of pollution. Many unfirmed accusations are made on the dangers of such sprays. The term "pesticide" has become a dirty word.

Because most of the pesticides are developed primarily to control pests in agricultural crops, we in the Department of Agriculture have been involved in the evaluation and use of pesticides since their inception. We are as concerned as anyone over their safe use. We not only review all tests conducted on pesticides, but do our own testing to evaluate results and prepare basic recommendations for their safe use.

In order to form a clear and honest appraisal we must first define pesticides and become familiar with their properties and prescribed use. Too often we get people condemning the use of DDT when in fact the pesticide involved was 2,4-D or vice versa. The term "pesticide" is all inclusive and is defined as an agent that destroys pests. In common usage the term is usually associated with a chemical substance that controls or destroys pests. Since there are many kinds of pests we have different kinds of pesticides and they are classified in terms according to their effect on target species. Herbicides are those chemicals used to control herbacious growth; fungicides control fungi; insecticides control insects; bacteriocides control bacteria; et cetera. Furthermore, we can take the classes of pesticides noted above and break them down into additional categories. For instance, some herbicides control broad leaved pests (weeds) in cereal crops, lawns, pastures, forests, et cetera and are often referred to as "selective" herbicides. We might also class them as "systemic" or "contact" herbicides depending on their mode of action on the target plant. Similarly, insecticides can be classed as "contact" or "systemic". Pesticides then are designed to control fairly specific target pest species, when used at recommended rates. Some are more specific than others.

Since pesticides destroy or kill pests, the next logical question then is, "Are they toxic to man or do they accumulate and indirectly cause growth defects to affect man's health?" Finally, we also want to know if they upset the balance of nature or destroy the environment.

There is a general agreement, of course, that all chemicals are toxic. Because pesticide chemicals are designed to kill or metabolically upset some living organism, they are potentially dangerous to all living organisms when applied at excessive dosage levels.

It is said there is no such thing as a "safe" or "unsafe" substance. There are only unsafe methods of using substances. Even common table salt is toxic at high levels of intake. We continually hear

of human deaths from overdoses of aspirin. Although technology has reached a stage where pesticides have their maximum effect on target species, it has not reached the ultimate where a chemical compound is so specific to one target species that it can be used indiscriminately without caution or respect.

It is generally agreed, even by ardent critics, that pesticides are necessary to protect man against disease carrying insects and to not only maintain but improve the world standard of food supplies. The best objective documentation of this statement lies in the Mraz Commission report, of December 1969, "Pesticides and Their Relationship to Environmental Health", prepared for the U. S. Department of Health, Education and Welfare. The introduction to the report states, "Our society has gained tremendous benefits from the usage of pesticides to prevent disease and to increase the production of food and fibre. Our need to use pesticides will continue to increase for the foreseeable future. However, recent evidence indicates our need to be concerned about the unintentional effects of pesticides on various life forms within the environment and on human health" In a recent press release the Food and Agricultural Organization of the U. N. has also confirmed its earlier policy statement approving DDT's continued use but urging that it be kept to a minimum.

It is imperative then that pesticides be strictly regulated by law and that they be used by informed intelligent people as directed by label recommendations and by law.

The first line of defense against undue hazards of pesticides is the current licensing system for the sale of products. All pesticides must be registered with the Canada Department of Agriculture before they can be offered for sale. Each pesticide submitted for license must be supported by comprehensive and adequate research to cover all aspects of its use - effect on target species - rate of application - residue, if any, - breakdown products after use - and particularly its toxicity to experimental animals. Samples usually undergo further tests by government authorities, such as the Department of National Health and Welfare,

Canada Department of Forestry and Fisheries, and Canada and Provincial Departments of Agriculture prior to registration by the Plant Products Division of the Canada Department of Agriculture.

To obtain the toxicity rating all pesticides are tested by feeding to experimental animals, usually rats or mice but others are often included and a few pesticides have been tested on humans. Further, toxicity ratings are always given relative to known effects on animals and it is probable that the pesticide will produce similar effects on man at relative dosage rates. The rate is expressed in terms of LD₅₀ (lethal dose to 50 per cent of the test animals, expressed in terms of milligram per kilogram of body weight). Those chemicals with LD₅₀ rates up to about 50 are very toxic (Arsenite LD₅₀ = 10). A chemical with an LD₅₀ rating between 100 - 500 is moderately toxic and over 500 is considered only slightly toxic, e.g. 2,4-D LD₅₀ = 300 - 700, and 2,4,5-T LD₅₀ = 100 - 300, table salt LD₅₀ = 3000, aspirin LD₅₀ = 750.

Most pesticides are used at relatively low rates to control target species which further reduces any hazard to other species with which they may come in contact. As an example 2,4-D and 2,4,5-T used for controlling brush and weeds along rights-of-way and for weed tree release in forests are used at not over two pounds of active ingredient per acre. This represents only a very small amount which might land on a non-target plant or animal or on potable waters. For instance, if the two pounds of chemical were spread over one acre of ground it would be equivalent to about 5 parts per million (ppm.), or if the chemical were sprayed over one acre of water and mixed in the top six inches of surface it would represent approximately 1 1/2 ppm. Tests have shown it requires 50 ppm. to kill many fish species. However, some formulations of 2,4-D can be toxic to fingerling fish as low as 3 ppm.

There are many reports of tests of 2,4-D and 2,4,5-T being fed to chickens, dogs, rabbits and other livestock, e.g.:

- (a) Bjorn, M.K. and H.T. Northen, 1948. Effect of 2,4-D acid on chicks. Science 108.

- (b) Grigsby, B.H., and E.D. Farwell, 1950. Some effects of herbicides on pasture and on grazing livestock. Michigan Agr. Exp. Station, Quart, Bul. 32.
- (c) Lee, O.C., 1953. Brush control by chemicals. Purdue Agr. Ext. Leaflet 358.
- (d) Rowe, V.K. and T.A. Hymas, 1954. Summary of toxicological information on 2,4-D and 2,4,5-T type herbicides and an evaluation of the hazards of livestock associated with their use. Am. J. Vet. Res. 15.
- (e) Roberts, R.E. and B. J. Rogers, 1957. Effects of 2,4,5-T Brush Spray on Turkeys. Purdue University Agr. Exp. Station, Journal Paper 1067.

In all the above-noted reports herbicides were administered from zero to very high dosage levels (up to 3000 ppm.) and all report no effects of herbicides to birds or livestock at dosage levels substantially above the normal recommended rates of application.

We are also hearing more and more alarming reports of the side effects of pesticides or their breakdown products. Some of these side effects are designated as carcinogenic (causing cancer), teratogenic (causing abnormalities in living organisms) and mutagenic (causing abnormal cell division). Here again many chemicals when ingested or applied to living organisms can induce side effects on the normal development of living tissue.

All abnormalities in growth habit are ultimately based on influences of chemicals on the biochemistry and physiology of plant cells. These influences are dependant on the type of pesticide and dose rate used, the environmental conditions, the stage of plant development and susceptibility of the species. However we must also note that all living plants contain their own specific growth regulators called auxins. These naturally occurring chemicals are related to the systemic hormone herbicides 2,4-D and 2,4,5-T, and are indoleacetic acid (I.A.A.)

derivatives. They occur in very low concentration in plant tissue but if they were applied to plants at rates normally recommended for herbicide treatments they too would have morphogenic effects on the growing plant.

There is no evidence that pesticides used at recommended rates are responsible for any significant increase in induced malformations on plant or animal life other than those directly affecting the target species.

Although various effects of non-auxin herbicides on plant growth have been noted, their main effect is not directed at specific growth processes but is rather to be attributed to severe disturbances of plant metabolism which influences plant growth indirectly. (For a comprehensive review of chemistry of herbicides see "The Physiology and Biochemistry of Herbicides", edited by L. J. Audus. Academic Press).

Recently the herbicide 2,4,5-T has been singled out for particular criticism because of the flurry of excitement created by suggested teratogenic effects in pregnant women in Vietnam. Subsequent tests conducted by the Bionetic Research Laboratory in New York showed 2,4,5-T caused more deformities than expected in strains of mice and rats. As a result of these findings the United States Department of Agriculture placed restrictions on the use of registered products containing 2,4,5-T. Similar action was taken by the Canada Department of Agriculture in May 1970.

However, subsequent assessment of the original tests and further testing found that 2,4,5-T in itself was not harmful, even when given at relatively high dosage rates, but that the commercial product of 2,4,5-T used in the Bionetic Laboratory tests contained about 27 ppm. of a dioxin identified as Tetrochlorodibenzo-P-Dioxin (TCDD). Further tests proved TCDD to be teratogenic. However, since the release of commercial formulations of 2,4,5-T, companies manufacturing the compound have improved the chemical process so that commercial products now contain less than 1 ppm. of the impurity. Thus when we realize that in

There have been no specific restrictions placed on other related phenoxy herbicides.

2,4-D and 2,4,5-T alone and in combination have been used on this continent for over 20 years. Extensive acreage of crop land and brush are treated annually. We are not aware of any reports indicating that abnormalities in animal life have occurred from results of sprays during all this time. This is also supported by J. L. Steinfield, Surgeon General of the U. S. Public Health Service who stated on April 20, 1970, "We are not aware of any reliable evidence that 2,4,5-T, indeed any of the Pesticide chemicals, has resulted in human birth abnormalities." Recently Drs. R. C. Teel, M.D. and C. H. Hine, M.D., Ph.D., representing the California Medical Association testified as follows:

1. "There has been no increase in morbidity (proportion of deceased persons) due to ingestion of agricultural chemicals."
2. "Surveys show the total public health has improved by the use of pesticides."
3. "Pesticides constitute only a moderate health hazard."
4. "Accidental ingestion by children and adults is due to careless handling. Therefore, more educational efforts are desirable."

Health authorities in Canada and the United States have been monitoring water and food supplies for pesticide residues for a number of years now and give a very reassuring report that our food is not being contaminated and is among the most wholesome in the world. Over a two-year period in excess of 24,000 samples, from cities and markets throughout the United States, were analyzed for pesticide residue and only three samples were found containing 2,4,5-T. The highest level reported was 0.19 ppm. in milk fat. A meat sample contained 0.003 ppm. Similarly, in Canada many samples from crops sprayed with 2,4-D have been analyzed and no residues of the herbicide were found.

Another major objection made is that pesticides are supposed to destroy our environment or ecosystem. What the public is not always told

is that harmful viruses, bacteria, fungi, insects, vermin and weeds are as much a part of the same ecosystem as pigeons, deer, hawks, fish, wild flowers, crops and man. This ecosystem is not static but dynamic and undergoing constant struggle and change. Touch this system at any one point and you influence it at another. Man has had to change ecological checks and balances to maintain a control in his favour to survive and prosper. Use of pesticides is one of the many ways designed to influence the ecosystem to his advantage - sometimes the design is not perfect.

Finally people are concerned over the eventual deposition of residual build-up from the continuing use of pesticides. Here again research information to hand is reassuring that the environment is not becoming unduly contaminated with chemical herbicides. Unlike some of the chlorinated hydrocarbon insecticides, which do not break down readily, those chemicals which are mainly used as herbicides are more rapidly decomposed. As already noted their environment is dynamic, undergoing constant change. When any foreign compound is introduced into the biosphere nature immediately sets up a counterbalance. Thus when a pesticide is applied there is an immediate and complex physical and chemical reaction set up between the pesticide, - plant, - soil, - and climate.

When an organic herbicide enters the plant it becomes involved in many of the chemical and metabolic processes of the plant system. This not only disrupts normal plant growth but also breaks down or changes the chemical structure of the herbicide itself.

Most herbicides usually reach the soil either by direct application, or as "run-off" from the plant leaf, or after the plant dies and decomposes. All herbicides are decomposed in the soil. The rate of decomposition depends mainly on the kind of chemical, rate of application, and soil type. Factors within the soil which effect the chemicals are:

- (1) micro-organism decomposition
- (2) chemical decomposition
- (3) adsorption on soil colloids
- (4) leaching
- (5) volatility and
- (6) photo-decomposition.

In general most soils rapidly decompose herbicides when applied at normally recommended levels. The following are quoted in part from the text, "Weed Control: As a Science", Klingman, G. C. (John Wiley & Sons Inc.):

"Table 4-1. Persistence of Herbicides in a Moist Loam Field Soil"

2,4-D	applied pre - & postemergence	@ $\frac{1}{2}$ -3 lbs./acre	1-4 weeks
2,4,5-T	applied pre - & postemergence	@ $\frac{1}{2}$ -3 lbs./acre	2-5 weeks
Simazine	applied preemergence	@ 1-4 lbs./acre	3-6 months
Simazine	applied preemergence	@ 10-40 lbs/acre	6-24 months.

Many pesticide chemicals are also rapidly decomposed by exposure to air and sunlight.

While we need the protection that these pesticides afford us, we also need understanding to make wise choices of their use. The criticism against pesticides has not been directed so much against the intelligent, frugal and effective use of these materials on target pests, as it has been against their indiscriminate, haphazard and careless application. No one condones haphazard application of any chemical whether it be fertilizer, 2,4-D, sodium chlorate, aspirin, detergent or penicillin. If we use chemicals judiciously to further our pest control program; use them carefully for the purpose required; and use them as directed; then we have nothing to fear from their continued use.

File Under Brush Control

TRADE MEMORANDUM

2403

Re: Registration Status - Pest Control Products containing 2,4,5-T

The purpose of the memorandum is to confirm the status of 2,4,5-T products under the Pest Control Products Act and the uses for which 2,4,5-T may be sold in Canada.

Trade Memorandum T-53, dated May 11, 1970, sets forth limitations on the sale of products containing 2,4,5-T. Notice of the cancellation of the registration status of 2,4,5-T formulations represented for use on lawns and recreational areas frequented by the public was given in that memorandum. The action was taken to remove the remote possibility that pregnant women would come in contact with 2,4,5-T and be adversely affected.

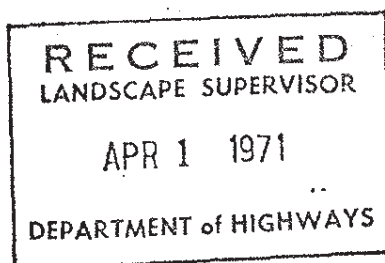
Use claims for 2,4,5-T products in controlling brush on rangeland, forests and rights-of-way, including highways, were not affected by Trade Memorandum T-53. There was no indication at that time of a risk of any kind from the use of 2,4,5-T to control brush in such locations. New information further reassures that the continued use of 2,4,5-T for these uses will not lead to the teratogenic or other adverse effects given publicity last year.

The reassessment and review of new information on 2,4,5-T is carried out jointly by officials of the Departments of Agriculture, Environment and National Health and Welfare.

In view of the great benefits derived from the use of 2,4,5-T in the control of brush, it is important that its status under the Pest Control Products Act be restated to reassure those who may be unnecessarily concerned.

ERH/CHJ:sc

Note 1. This text will be replaced by a bilingual text shortly.
Nota 1. Nous vous ferons parvenir le texte bilingue prochainement.



*Copy To B.C.
Interdepartmental Pesticide
Committee Mar 31/71*



VAN WATERS & ROGERS LTD.

2625 SKEENA STREET
VANCOUVER 12, B.C.

TELEX
04-5567

TELEPHONE
HEMLOCK 3-0521

MAIL: P.O. BOX 2009
VANCOUVER 3, B.C.

April 5, 1971

Mr. M. Pope
Landscape Supervisor
B. C. Department of Highways
Victoria, B. C.

Dear Mr. Pope:

SUBJECT: BRUSHKILLER

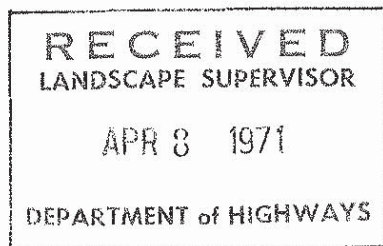
We have just sent in our quotation on the 5,000 gallons of Brush-killer which the Department of Highways estimates it will be using over the next twelve month period.

I realize that you have a public relations problem in doing spray work along side roads and it occurs to me that part of the problem here may be the odour which is characteristic of 2,4-D and 2,4,5-T, which people would smell after spraying had taken place.

We do have various deodorizing agents and we could arrange to add these to the Brushkillers so that most of the odour problem would be overcome.

For a cost of \$1.00 per gallon over the prices we have quoted, we could deodorize the Brushkiller we supply you. I thought you might be interested in hearing this and even if you do not wish to have it done on all the material, you might be interested in having a few gallons treated in this manner so that you can do experimental work.

If the above is of any interest to you, I would be happy to discuss it further.



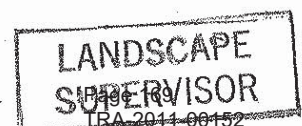
Yours truly,

VAN WATERS & ROGERS LTD.,

R. H. Pearson
R. H. PEARSON,
Assistant Manager,
Agricultural Supply Dept.

RHP:rg

202738



2403

DEPARTMENT OF HIGHWAYS

TO:

Landscape Supervisor
Department of Highways
Victoria

SENDER'S ADDRESS: 523 Columbia Street
Kamloops

DATE: Dec. 2nd, 1970

DISTRICT:

HEADQUARTERS FILE:

REGIONAL FILE:

DISTRICT FILE:

ATTENTION:

SUBJECT:

Weed and Brush Control

REFERENCE:

DATED:

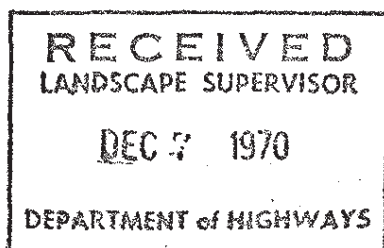
FOR DEPARTMENTAL CORRESPONDENCE ONLY.

Enclosed is a list of chemicals requested by the districts for the 1971 season and a list of chemicals used during 1970.

R.G. White
Regional Highway Engineer

S. Paloposki
by; S. Paloposki
Regional Landscape Supervisor

Encl.
cc Regional Maintenance Engineer



191517



DEPARTMENT OF HIGHWAYS

TO:

Page 2

ATTENTION:

SUBJECT:

SENDER'S
ADDRESS:

DATE:

DISTRICT:

HEADQUARTERS FILE:

REGIONAL FILE:

DISTRICT FILE:

REFERENCE:

DATED:

Chemicals required for 1971
Region #2

District	Simazine	24D	24D-245-T	Tordon 101	Tordon 10K
Kamloops	200 lbs	90 gals		250 gals	100 lbs
Salmon Arm	300 "				600 "
McBride	1,200 "			225 "	400 "
Vernon	1,200 "			180 "	100 "
Kelowna	1,250 "		135 gals	135 "	150 "
Penticton	4,000 "	180 "		200 "	200 "
Merritt	2,000 "	225 "			200 "
Lillooet		180 "			500 "
Williams Lake					400 "
Totals	10,150 lbs	675gals	135gals	990 gals	2,650 lbs

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

DEPARTMENT OF HIGHWAYS

TO:		SENDER'S ADDRESS:	
Page 3		DATE:	
		DISTRICT:	
ATTENTION:		HEADQUARTERS FILE:	
SUBJECT:		REGIONAL FILE:	
		DISTRICT FILE:	
		REFERENCE:	DATED:

Chemicals used during 1970

District	Simazine	24D	24D-245-T	245-T	Tordon 101
Kamloops	150 lbs	196 gals		30 gals	190 gals
Salmon Arm	600 "				
McBride					
Vernon	1,350 "				202½ "
Kelowna	150 "			45 "	
Penticton	1,600 "	45 "	76 gals	85 "	105 "
Merritt	650 "	75 "			
Lillooet		135 "			
Williams Lake					
Totals	4,500 lbs	451 gals	76 gals	160 gals	497½ gals

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

February 1, 1971.

Mr. C. L. Neilson,
Chairman,
B.C. Interdepartmental Pesticide Committee,
Department of Agriculture,
Buildings.

Dear Mr. Neilson:

Re: Use of Herbicides. Personal Safety Aspect.

I have been asked by Mr. D. F. Martin, Senior Maintenance Engineer, to present the following questions to the Pesticide Committee.

At a recent meeting of the Headquarters Safety Committee the question of possible internal and external damage through the use of herbicides was brought forward.

If possible could you provide information relative to damage to the lungs, liver, etc., that may be caused through handling, inhalation, ingestion or absorption through the skin.

The herbicides presently in use by this Department follow:

2,4-D esters
2,4,5-T esters
Tordon 101
Tordon 22K
Tordon 10K pellets
Simazine 50W (now Simmazin 80W)
Atrazine
Primatol A 80 W

Any information you are able to provide will be appreciated.

Yours very truly,



Michael Pope,
Landscape Supervisor.



MP/jc

c.c. Mr. N. F. Putnam, Field Crops Commissioner,
Department of Agriculture, Buildings.

Norm: I understand from Mr. Neilson that he will be away for a couple of weeks. He suggested that I contact you with the request that you or Mr. Hughes might be able to provide the necessary information.

2403
RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

FEB 5 1971

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA

ANSWERED.....
NOTED.....
DATE..... *MM 8/11*

ATTENTION - MR J A INGRAM

PLEASE ARRANGE TO SHIP TO NEW DENVER

225 GALLONS OF WEED KILLER TYPE A 2-4-D *Control 14.*

185 GALLONS OF WEED AND BRUSH KILLER TYPE B 2-4-D AND 2-4-5T

50 GALLONS TOPDON 101 BRUSH KILLER *Control #11*

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPERINTENDENT, NEW DENVER

S J DIXEY
REGIONAL OFFICE MANAGER

R3-80-49

NELSON
FEBRUARY 5, 1971
8:55 A M
MSGE RCD VIC

196324

2403

REGIONAL OFFICE MANAGER
NELSON

HQ FILE 2403

WEED AND BRUSH KILLER AND TORDON 101 NEW DENVER

REF URTEL FEB 5TH 8:55 AM YOUR FILE R3-20-49 APPANGEMENTS MADE SAME DAY WITH DOW CHEMICAL OF CANADA LTD 796 GRANVILLE ST VANCOUVER 2 TO SHIP 50 GALLONS (2-25 GAL DRUMS) OF TORDON 101 BRUSH KILLER CONTROL #11 TO NEW DENVER. SHIPPING ADVICE AND INVOICE TO THE DISTRICT SUPT AT NEW DENVER.

ALSO ARRANGEMENTS MADE TODAY WITH GREEN VALLEY FERTILIZER & CHEMICAL CO LTD 12816 - 20TH AVE BOX 249 SURREY B C TO SHIP 225 GALLONS (5-45 GAL DRUMS) OF WEED KILLER TYPE "A" - 2-4-D AND 180 GALLONS (4-45 GAL DRUMS) OF WEED AND BRUSH KILLER TYPE "B" 2-4-5-T AND 2-4-D TO THE DEPT OF HIGHWAYS NEW DENVER CONTROL #14. SHIPPING ADVICE AND INVOICE TO THE DIST SUPT AT NEW DENVER.

A E RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
FEB 5 1971
4:51 PM
MSG RECD NEL

February 5, 1971.

Attention: Mr. Gerald Mendieta

Green Valley Fertilizer &
Chemical Co. Ltd.,
12816 - 80th Ave.,
Box 249,
Surrey, British Columbia.

Dear Sirs:

Re: Weed Killer, Type "A" and
Weed and Brush Killer Type "B",
New Denver

Confirming telephone conversation today's date, please arrange to ship as soon as possible the following:

225 gallons (5 - 45-gal. drums) of weed killer Type "A", 2-4-D and 180 gallons (4 - 45-gallon drums) of weed and brush killer, Type "B", 2-4-5-T and 2-4-D to the Dept. of Highways, New Denver, Control No. 14. Shipping advice and invoice to Mr. R.M. McMillan, District Superintendent, Dept. of Highways, New Denver, British Columbia.

Yours truly,


R.A. E. Rhodes,
Comptroller of Expenditure.

:he

2403

REGIONAL OFFICE MANAGER
NELSON

HQ FILE 2403

WEED AND BRUSH KILLERS NELSON GRAND FORKS FERNIE AND CRANBROOK
REF URTEL FEB 22ND YOUR FILE R3-80-49 2:40 PM ARRANGEMENTS MADE WITH
GREEN VALLEY FERTILIZER AND CHEMICAL CO LTD 12816 - 80TH AVE BOX 249
SURREY TO SHIP THE FOLLOWING WEED AND BRUSH KILLER:

225 GALLONS 5 - 45 GALLON DRUMS TYPE A 2-4-D WEED KILLER TO NELSON
CONTROL 15. SHIPPING ADVICE AND INVOICE TO G R KENT AT NELSON.

900 GALS 10-45 GAL DRUMS TYPE A 2-4-D WEED KILLER AND 10-45 GAL DRUMS
TYPE C 2-4-5-T BRUSH KILLER TO GRAND FORKS CONTROL 1// #16. SHIPPING
ADVICE AND INVOICE TO D C WESTAWAY.

90 GALS 2-45 GAL DRUMS TYPE C 2-4-5-T BRUSH KILLER TO FERNIE CONTROL
#17. SHIPING ADVICE AND INVOICE TO A E STAITE AT FERNIE.

315 GALS 2-45 GAL DRUMS TYPE A 2-4-D WEED KILLER 2-45 GAL DRUMS TYPE
B2-4-D PLUS 2-4-5-T WEED AND BRUSH KILLER AND 3-45 GAL DRUMS TYPE C
2-4-5-T BRUSH KILLER TO CRANBROOK CONTROL #18. SHIPPING ADVICE AND
INVOICE TO G K AUSTIN AT CRANBROOK.

A E RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
FEB 25 1971
4:30 PM
MSG RECD NELSON

February 25, 1971.

Attention: Mr. Gerald Mendieta

Green Valley Fertilizer & Chemical
Co. Ltd.,
12816 - 80th Ave.,
Box 249,
Surrey, British Columbia.

Dear Sirs:

Re: Weed and Brush Killer, Nelson,
Grand Forks, Fernie and Cranbrook

Confirming telephone conversation of February 25th, please arrange to ship the following as soon as possible:

225 gallons (5 - 45-gallon drums) Type "A" (2-4-D) weed killer to the Dept. of Highways, Nelson, Control 15. Shipping advice and invoice to Mr. G.R. Kent, District Superintendent, Dept. of Highways, Nelson.

900 gallons weed and brush killer made up of 10 - 45-gallon drums of Type "A" (2-4-D) weed killer, and 10 - 45-gallon drums of Type "C" (2-4-5-T) brush killer to the Dept. of Highways, Grand Forks, Control 16. Shipping advice and invoice to Mr. D.C. Westaway, District Superintendent, Dept. of Highways, Grand Forks.

90 gallons (2 - 45-gallon drums) of Type "C" (2-4-5-T) brush killer to the Dept. of Highways, Fernie, Control 17. Shipping advice and invoice to Mr. A. E. Staite, District Superintendent, Dept. of Highways, Fernie.

315 gallons being 2 - 45 gallon drums Type "A" (2-4-D) weed killer.
2 - 45-gallon drums Type "B" (2-4-D plus 2-4-5-T) weed and brush killer.
3 - 45-gallon drums Type "C" (2-4-5-T) brush killer to the Dept. of Highways, Cranbrook, Control 18. Shipping advice and invoice to Mr. G.K. Austin, District Superintendent, Dept. of Highways, Cranbrook.

Yours truly,

h. E. Rhodes
A. E. Rhodes,

Comptroller of Expenditure.

JAI:he

Regional Highway Engineer
North Vancouver
Kamloops
Nelson
Prince George

Victoria
November 25, 1970.

2403

Regional Landscape Supervisor

Attached copy of letter from
Canada Department of Agriculture.

The attached copy is in reply to a
brief submitted by a resident of South Pender Island
to E. C. Anderson, Herbicide Liaison Officer in Ottawa.

The reply is an excellent summary of
the situation in regard to the use of 2,4-D and 2,4,5-T
to control undesirable vegetation.

We have not seen the brief which was
submitted to Ottawa, although we understand that a copy
was sent originally to this Department.

The attached is for your information.



Michael Pope,
Landscape Supervisor.



MP/jc

PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF HIGHWAYS

2403

TO:

Landscape Supervisor
Department of Highways
Victoria

SENDER'S ADDRESS: 523 Columbia Street
Kamloops

DATE: Dec. 2nd, 1970

DISTRICT:

HEADQUARTERS FILE:

REGIONAL FILE:

DISTRICT FILE:

ATTENTION:

SUBJECT:

Weed and Brush Control

REFERENCE:

DATED:

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

Enclosed is a list of chemicals requested by
the districts for the 1971 season and a list of
chemicals used during 1970.

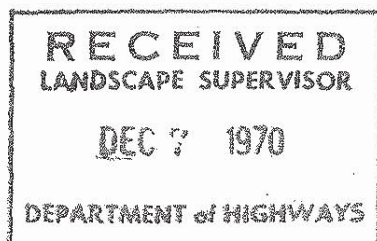
R.G. White
Regional Highway Engineer

S. Paloposki

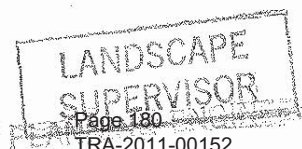
by: S. Paloposki
Regional Landscape Supervisor

Encl.

cc Regional Maintenance Engineer



191517



CHIEF PE

TRA-2011-00152

DEPARTMENT OF HIGHWAYS

FORM H

TO:

Page 2

ATTENTION:

SUBJECT:

SENDER'S
ADDRESS:

DATE:

DISTRICT:

HEADQUARTERS FILE:

REGIONAL FILE:

DISTRICT FILE:

REFERENCE:

DATED:

Chemicals required for 1971
Region #2

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

District	Simazine	24D	24D-245-T	Tordon 101	Tordon 10K
Kamloops	200 lbs	90 gals		250 gals	100 lbs
Salmon Arm	300 "				600 "
McBride	1,200 "			225 "	400 "
Vernon	1,200 "			180 "	100 "
Kelowna	1,250 "		135 gals	135 "	150 "
Penticton	4,000 "	180 "		200 "	200 "
Merritt	2,000 "	225 "			200 "
Lillooet		180 "			500 "
Williams Lake					400 "
Totals	10,150 lbs	675gals	135gals	990 gals	2,650 lbs

PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF HIGHWAYS

TO:

Page 3

ATTENTION:

SUBJECT:

SENDER'S
ADDRESS:

DATE:

DISTRICT:

HEADQUARTERS FILE:

REGIONAL FILE:

DISTRICT FILE:

REFERENCE:

DATED:

Chemicals used during 1970

District	Simazine	24D	24D-245-T	245-T	Tordon 101
Kamloops	150 lbs	196 gals		30 gals	190 gals
Salmon Arm	600 "				
McBride					
Vernon	1,350 "				202½ "
Kelowna	150 "			45 "	
Penticton	1,600 "	45 "	76 gals	85 "	105 "
Merritt	650 "	75 "			
Lillooet		135 "			
Williams Lake					
Totals	4,500 lbs	451 gals	76 gals	160 gals	497½ gals

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

MEMORANDUM

RECEIVED

DEPT. OF HIGHWAYS
VICTORIA, B.C.

Entomology Branch

TO M. Pope

Landscape Supervisor

APR 10 1973

Dept. of Agriculture

Dept. of Highways

ANSWERED

April 9

1973

NOTED

SUBJECT Proposed Herbicide Treatment
by B. C. Dept. of Highways - East &
West Kootenay (45 submissions)

DATE (1973)

April 7/73

RECEIVED
LANDSCAPE SUPERVISOR
APR 11 1973
YOUR FILE
DEPARTMENT OF HIGHWAYS

Other members of the Interdepartmental Pesticide Committee have reviewed the above projects and they can proceed under the following conditions:

1. That "Basic Requirements" of the Pesticide Applicator Information Circular No. 1, Revised October 1972 be strictly observed. In particular I draw your attention to Item 8 re potable water as the specific question has been raised for several of the projects by the Health Dept.
 - a) Highway #3 Blueberry-Trail-Meadows Siding; Highway #3B Nancy Green Lake - Rossland; Highways #22 Rossland - Paterson; Highway #22A Rossland - Waneta (Map 21) - 2,4-D, 2,4,5,T and Simazine - water bodies are involved - am I right in presuming that these are not used for municipal or domestic purposes? It is not indicated.
 - b) Highways #6 Nelson - Ymir - Boulder Mill; Highway #3A Nelson - Taghum - Brilliant; Highway #6 Playmor - Slocan Park - (Map #16) - Simmaprim 80W - I note water bodies are involved - no indication of whether these may be used for potable supplies.
 - c) Highway #6 Nelson - Ymir - Boulder Mill; Highway #3a Nelson Taghum - South Slocan - Brilliant; Highway #6 Playmor - Slocan Park; Highway #3 Kinnaird - Paulson - (Map #16) - 2,4-D and 2,4,5-T to be used - are domestic water supplies involved? - if so, I would not recommend the project as it stands now.
2. Spraying must not be done into open ditches or in such a manner as to contaminate standing or running water. Alternate times of application or control methods should be used.
3. Care must be exercised to ensure no damage to conifer stands beyond the right-of-way, and extreme care exercised in the vicinity of private homes, crops and gardens to prevent damage from drift.

I enclose a copy of detailed comments of other Committee members for your information.

B. C. Neilson

B. C. Neilson, Chairman
B. C. Interdepartmental
Pesticide Committee

271001

CLN/dy

Page 18
TRA-201-00152
LANDSCAPE
SUPERVISOR

DEPARTMENT OF RECREATION AND CONSERVATION

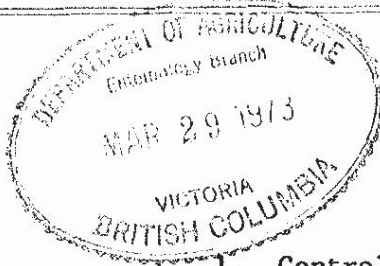
FISH AND WILDLIFE BRANCH

MEMORANDUM

TO C. L. Neilson
Provincial Entomologist

FROM M. R. Whately, Biologist
Fish Habitat Protection

DATE March 28, 1973 FILE No. 40-06-02



Re: Proposed Herbicide Treatment (1973)
by B. C. Dept. of Highways - East
and West Kootenays

1. Control of noxious weeds and brush to maintain good drainage and good sight distances. 2, 4-D and 2, 4-D/2, 4, 5-T at 3 lbs./acre.

Foliar spray - spot treatment - May 1 - June 30 Targets - Canada thistle, sow thistle, mullein, sweet clover, burdock, knapweed, poplar, alder, willow and conifers.

Spot treatment of target species where they are creating problems of maintenance, or sight obstruction, etc., will not be objected to. "Noxious" weeds implies an agricultural problem. Treatment of these species should only occur where agricultural fields and croplands are endangered. Maintenance of good drainage implies spraying into ditches and, therefore, water (particularly during spring). Spraying must not occur where there is a danger of contaminating standing or running water. I suggest either a mechanical means of control in ditches or postponement of spray until fall when ditches should be dry.

Nesting birds are to be avoided, and Basic Requirements are to be observed.

2. Maintenance of free draining, stable road shoulders.

Simazine 80% at 16 lbs./acre

Boom sprayer during September and October.

Targets - weeds and grasses.

- No objection; keep clear of water.

3. Maintenance of free draining and stable road shoulders.

Atrazine or Bromacil 16 or 12 lbs./acre respectively.

Boom sprayer during September and October.

Targets - weeds and grasses.

- No objection; water must not be contaminated.

4. Brush control to maintain good drainage, sight distances, eliminate potential shade factors and preserve area for

C. L. Neilson
Page 2
March 28, 1973

snow storage.

Tordon 22 K, 101, or 155; foliar spot application (dormant for the 155 application) on conifers, alder, willow, poplar, knapweed.

Application dates - May and June (April for dormant).

-Spot treatment of target species where they are actually creating hazardous driving conditions will not be objected to.


M. R. WHATELY, Biologist
Fish Habitat Protection

MRW:wej



DIVISION OF OCCUPATIONAL HEALTH
DEPARTMENT OF HEALTH SERVICES AND HOSPITAL INSURANCE

Mr. C. L. Neilson, Chairman,
B.C. Interdepartmental Pesticide Committee,
Department of Agriculture,
Parliament Buildings,
VICTORIA, B. C.

April 4th, 1973.

Dear Mr. Neilson:

Re: Proposed Herbicide Treatment (1973)
by B.C. Department of Highways
East and West Kootenays
(Forty-five submissions)

All of the above are acceptable from a health standpoint
provided I can have clarification on the following:

- 1) Highway #3 Blueberry - Trail - Meadows Siding; Highway #3B Nancy Green Lake - Rossland; Highways #22 Rossland - Pater-son; Highway #22A Rossland - Waneta (Map 21) - 2.4.D, 2.4.5.T and Simazine - water bodies are involved - am I right in presuming that these are not used for municipal or domestic purposes? It is not indicated.
- 2) Highways #6 Nelson - Ymir - Boulder Mill; Highway #3A Nelson - Taghum - Brilliant; Highway #6 Playmor - Slocan Park - (Map #16) - Simmaprim 80W - I note water bodies are involved - no indication of whether these may be used for potable supplies.
- 3) Highway #6 Nelson - Ymir - Boulder Mill; Highway #3a Nelson, Taghum - South Slocan - Brilliant; Highway #6 Playmor - Slocan Park; Highway #3 Kinnaird - Paulson - (Map #16) - 2.4.D and 2.4.5.T to be used - are domestic water supplies involved? - if so, I would not recommend the project as it stands now.

. . .

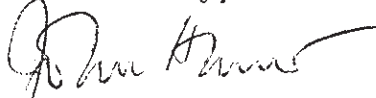
2

Mr. C. L. Neilson,

. . . 2

- 4) Highway #6 Nelson - Ymir; and Highway #6 Nelson - Taghum -
I note proposed dates of application (March 1st to 30th) have
now passed, so I presume this will not be carried out.

Yours sincerely,



JOHN H. SMITH, M.D., D.P.H., D.I.H.,
Director,
Division of Occupational Health.

JHS:js



March 13, 1973

Shell Canada Ltd.
Box 2211
1075 West Georgia St.
Vancouver 3, B.C.

Attention: Mr. B. Cannon

Dear Sirs:

Re: Weed and Brush Killer - Cranbrook

Confirming telephone conversation of March 12,
please arrange to ship to Cranbrook, as soon as possible,
360 gal. of Weed and Brush Killer as follows:


135 gal. (3 - 45 gal. drums) Weed Killer 2-4-D -
64 oz.

90 gal. (2 - 45 gal. drums) Weed and Brush Killer,
2-4-D plus 2-45-T (32 oz. plus 32oz.)

135 gal. (3 - 45 gal. drums) Brush Killer 2-45-T,
64 oz.

All the above covered by Control No. 16, with
shipping advice and invoice to G.K. Austin, District
Superintendent, Dept. of Highways, Cranbrook.

Yours very truly,


A.E. Rhodes
Comptroller of Expenditure

JAI/km

2403

cc: E. C. Hughes
Dr. J. Smith
R. C. Sutton
M. Whately



VICTORIA

March 14, 1973

MAR 16 1973

Mr. M. Pope
Landscape Supervisor
Department of Highways
BUILDINGS, Victoria, B.C.

ANSWERED.....
NOTED.....
DATE *Mar 22/73*



Dear Mike:

RE: Proposed Herbicide Treatment (1973)
by B.C. Dept. of Highways--Kamloops
Regional Area.

Other members of the Interdepartmental Pesticide Committee have reviewed the above proposals and agree they can proceed, subject to the following:

1. Observe all "Basic Requirements" particularly Items 7, 8, 9, 10.
2. The hormone type sprays i.e. picloram, 2,4-D and 2,4,5,-T should be applied with extreme care in the Okanagan basin. Keep pressure low, avoid spraying if wind over 5 m.p.h. or on extremely hot periods so as to minimize drift or vaporization hazards to fruit and vegetable crops. Do not treat in front of home sites. Spot threat as indicated on the application.
3. Simmaprim 80 used as stipulated on Highway #1, #5, #16, #12, #8, #97, and Okanagan Flood Control spot control are all satisfactory. Avoid excessive use of simazine for spot control in the dyke area in the Okanagan Flood Control projects since it is a long lasting sterilant.
4. In respect to the use of Tordon 101 and Tordon 22K for mullein, knapweed and brush control over rights-of-way, spot treatment only must be used. Extreme care should be used to prevent any drift (and especially in tree fruit and vegetable regions) since picloram is extremely injurious to crop plants, greenhouses, etc. should drift occur.
5. Birds will be nesting during the treatment period and care should be taken to avoid spraying such nests and birds.
6. The highways cross many creeks despite your application stating that no water was involved and I would particularly remind you of Item 9 of the Basic Requirements.

Yours truly,

C. L. Neilson

C. L. Neilson
Provincial Entomologist

269606

CLN/jml

Serial	Nelson	Creston	Rossland	Grand Forks	New Denver	Cranbrook	Fernie	Golden	Revelstoke
1-4-D	45 gal. ✓	45 gal. ✓				135 gal. ✓	90 gal. ✓	—	✓
2,4-D/2,4,5-T	180 gal. ✓	180 gal. ✓			180 gal. 45 gal. ✓	90 gal. ✓	90 gal. ✓	135 gal. ✓	180 gal. ✓
2,4,5-T	45 gal. ✓	45 gal. ✓				135 gal. ✓	—	✓	90 gal. ✓
Tordon 10K	100 lbs. ✓			50 lbs. ✓	✓	200 lbs. ✓	50 lbs. ✓	✓	50 lbs. ✓
Tordon 22K	5 gal. ✓	5 gal. ✓		5 gal. ✓	✓	5 gal. ✓	✓	✓	✓
Tordon 101					25 gal. ✓	✓	25 gal. ✓	100 gal. ✓	✓
Tordon 155	25 gal. ✓	25 gal. ✓			✓	✓	✓	✓	50 gal. ✓
Stimprin	1000 lbs. ✓	1500 lbs. ✓	1500 lbs. ✓	—		✓	500 gal. ✓	—	700 lbs. ✓
Primatol	—	—	✓	1500 lbs. ✓	✓	500 lbs. ✓	—	—	—
Hyvar X	✓	✓	✓	✓	✓	✓	✓	1000 lbs. ✓	✓
Terraseal	20 gal. ✓	10 gal. ✓	—	10 gal. ✓	10 gal. ✓	✓	5 gal. ✓	✓	10 gal. ✓
Xylol	10 gal. ✓	5 gal. ✓		5 gal. ✓	5 gal. ✓	—	2 gal. ✓	✓	5 gal. ✓
Timberlox	20 gal. ✓	15 gal. ✓		20 gal. ✓	15 gal. ✓	✓	20 gal. ✓	5 gal. ✓	10 gal. ✓
Savopine	10 gal. ✓	5 gal. ✓		10 gal. ✓	20 gal. ✓	5 gal. ✓	10 gal. ✓	15 gal. ✓	10 gal. ✓
Sanitor	10 gal. ✓	10 gal. ✓		10 gal. ✓	20 gal. ✓	5 gal. ✓	10 gal. ✓	✓	30 gal. ✓
*Garbage Bags	2625	525	1000	5000	nil	1200	600	4000	6000

* A number of District Officials prefer the C. I. L. Plastic.

2403
BODNAYCD

CONTROLLER OF EXPENDITURES
DEPARTMENT OF HIGHWAYS
VICTORIA BRITISH COLUMBIA

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

MAR 9 1973

ANSWERED _____
NOTED _____
DATE 12/3/73

ATTENTION: J A INGRAM

PLEASE SHIP THE FOLLOWING TO THE DEPARTMENT OF HIGHWAYS CRANBROOK

200 LBS ~~TX~~ TORDION 10K PELLETS (4-50 LBS DRUM)

Control # 8

500 LBS

PRIMATOL A80 W (10-50 LBS DRUMS)

Control # 1

135 GALLONS 2,4-D/ (3-45 GALLON DRUMS)

90 GALLONS 2,4-D/2,4,5T (2-45 GALLONS DRUMS)

135 GALLONS 2,4,5T (3-45 GALLON DRUMS)

Control # 16

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPERINTENDENT CRANBROOK.

H J BODNARCHUCK
REGIONAL LANDSCAPE SUPT
DEPARTMENT OF HIGHWAYS
NELSON BRITISH COLUMBIA

NELSON
MARCH 9, 1973
4:12 PM
OK VIC

November 30, 1972.

Mr. E. C. Hughes,
Department of Agriculture,
Box 1172, Station A,
Surrey, B. C.

Dear Mr. Hughes:

Re: Pesticide Use by Department of Highways.

Further to our telephone calls, the following is for your information:

Region 1 (Lower Mainland and Vancouver Island)
Region 2 (Kamloops)
Region 3 (Nelson)
Region 4 (Prince George)

	R.1	R.2	R.3	R.4	Totals
Simazine 50W		625	2000		2,625 lbs.
Simasprim 80W	3303	5630	2900	1031	12,864 lbs.
Primatol 80W			500		500 lbs.
Hyvar X		490			490 lbs.
Tordon 101		220.5		40	260.5 gals.
" 212		14			14 gals.
" 22K		23.5	10		33.5 gals.
" 10K			200	130	330 lbs.
2,4-D	5	5	148		158 gals.
2,4-D + 2,4,5-T	638	248.5	483	2008	3374.5 gals.
2,4,5-T		308	420		728 gals.

Yours very truly,


Michael Pope,
Landscape Supervisor.


MP/jc

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA B.C.

JAN 30 1973

ANSWERED.....
NOTED.....
DATE *Jan 31/73*



VICTORIA

January 26, 1973

RECEIVED
LANDSCAPE SUPERVISOR

JAN 31 1973

DEPARTMENT of HIGHWAYS

M. Pope, Landscape Supervisor
Dept. of Highways
Parliament Buildings
Victoria, B. C.

Dear Sir:

RE: Proposed Pesticide Treatment (1973)
by B. C. Dept. of Highways on various
Okanagan Highway rights-of-way

The Interdepartmental Pesticide Committee have completed their review of the above projects and I can now advise that the projects may proceed providing:

1. All Basic Requirements should be strictly adhered to in all projects and "spot treatments" used wherever possible.
2. Okanagan Flood Control Dykes between Oliver & Osoyoos - This area is a concentrated peach and apricot area plus has several vegetable growers, hence there are a few greenhouses probably already operative. Extra precaution should be used to make certain treatments are applied as dormant applications, even though chance of injury is minimal. Spray pressures should be minimal to reduce drift hazard on oil mists. The rates of 2 lb. 2,4-D/10 gal. oil is adequate. I doubt whether 2,4,5-T is necessary since I cannot recall much conifer. 2,4,5-T would be preferable however for control of poison ivy and I know it does occur along irrigation ditches in this area. Generally 2,4-D would be preferred since it is effective on willow, alder and acacia present.
3. Highway 97 treatments can proceed subject to implementation of the attached comments from Mr. E. C. Hughes (his letter of January 19, 1973).

Yours truly,

E. L. Neilson per Dy
G. L. Neilson, Chairman
B. C. Interdepartmental
Pesticide Committee

265072

GLN/dy

c.c. E. C. Hughes, R. G. Sutton, Dr. J. Smith, M. Whately

DISTRICT OFFICE



Box 1172, Station "A",
Surrey, B. C.

January 19, 1973.

Mr. C. L. Neilson,
Provincial Entomologist,
B. C. Dept. of Agriculture,
Parliament Buildings,
Victoria, B. C.

Dear Chet:

- (1) Re: Proposed Herbicide Treatment 1973 - B. C.
Dept. of Highways - #97 Highway - Winfield
to Vernon
-

I am familiar with the region outlined as you are well aware. As a dormant spray 2 lb. a.i. 2,4,5-T in 8 gal. oil ratio this treatment should be effective, not only on alder and willow but conifers and all other species. Two (2) lb. a.i. in 10 gal. oil ratio (20 lb. a.i. per 100 gal. oil) should actually be adequate for spot spray dormant control of these species.

Since these oil mixtures tend to mist at high pressures, the applicator should be advised to use only enough pressure to obtain coverage but to retain large droplet sizes.

~~(I assume the above refers to 1973, not 1972)~~

- (2) Re: Proposed Herbicide Treatments - Highway 97
Trout Creek/Westbank
(3) Re: Proposed Herbicide Treatment - Junction #97
and 3A North to Trout Creek
(4) Re: Proposed Highway Treatment - #6 Rd. Vernon -
Lumby

The remarks above apply to applications (2) to (4) as well. I note the oil dilution ratio was not stated but the 2 lb. a.i./10 gal. oil should be adequate as well.

In the more isolated areas of these roads (i.e. Lumby) the early summer foliar treatment would be equally effective at less cost on alder and willow but not on conifer, snowberry and a few other species. The oil/water treatment is usually advised as a follow up treatment in dense cover

. . . 2

Mr. C. L. Neilson

January 19, 1973.

areas to reduce the total amount of 2,4-D or 2,4,5-T applied per acre, but the aesthetic "brown out" is probably the matter of concern.

Of some concern, however, are the roadsides associated with tree fruit, vegetable and greenhouse adjacent to roads in these regions. Irrespective of cost it will be necessary to use dormant treatments of these herbicides to remove the hazards of injury to these crops. Applications on the dates stated should be avoided especially near greenhouses and peach or apricot orchards if unseasonably warm weather occurs, since these oil mixes will volatilize more readily than the summer foliar treatments. Of special concern in this regard are the Trout Creek - Westbank region, and the Junction 3A North to Trout Creek on Highway #97.

Finally if alder/willow is the major concern in all these sites, I would suggest 2,4-D be substituted for 2,4,5-T. It will be equally effective but without the dioxin arguments etc. that environmentalists keep raising.

Any area of considerable size should be probably slashed in the area of orchards and greenhouses and treated another season. Such "spot treatments" could concentrate 2,4-D or 2,4,5-T in oil in an area so that volatilization could be still considerable in the spring budding and flower season of fruit trees.

Yours truly,



E. C. Hughes,
Field Crops Specialist

ECH/mr

2403

BRITISH COLUMBIA
DEPARTMENT OF AGRICULTURE

- C) Department of Transport (airports), pipelines and others. During the review process an application may be rejected, or it may be allowed to proceed under restricted conditions.

In respect to the use of 2,4-D and 2,4,5-T by the Highways Department, I would point out that in addition to chemical control of weeds and brush along their right-of-ways they are doing much hand cutting work, mowing and preparation of sites for grassing. The chemicals that they are using are those which have been approved of for the particular area. They are being used according to the best information available through scientific sources. If at any time the registration status of a chemical is withdrawn or changed, such a use change will be immediately reflected through the sales outlets, the use by commercial applicators and the denial of such use by the Interdepartmental Committee.

I am attaching several articles respecting 2,4-D and 2,4,5-T use and at the same time am fully aware of the continuing controversy respecting certain aspects of their use. As stated above, we will act, if and when there is any change in respect to Canadian registration of any pesticide.

1. Dec. 11/71 - Analytical Standard for Technical 2,4,5-T acceptable for registration for 1972 and 1973. C.D.A. T-87
2. March 22/71 - Registration Status - Pest Control Products containing 2,4,5-T. C.D.A. T-72
3. Jan. 12/71 - Scientist Scores Panic Ecologists
4. Oct. 18/71 - 2,4,5-T Herbicide - Current Status in Canada
Letter from Dow Chemical to C. L. Neilson
5. Jan. 28/70 - Memorandum re 2,4-D and 2,4,5-T to Dr. J.C. Woodward, Assistant Deputy Minister, C.D.A. from E. G. Anderson.
6. Dec. 22/69 - Letter from Weed Society of America to Dr. L.A. DuBridge, Science Adviser to the President of U.S.A. re evaluating a paper "Teratogenic Evaluation of 2,4,5-T".
7. Oct. 22/70 - Letter from E.G. Anderson to Mrs. E. Smith of S. Pender Island re "Dangers, proven and potential, from chemical herbicides used by Government and Industry for brush and foliage control"
8. July 1972 - "Pesticides - Questions and Answers"
B.C. Department of Agriculture publication
9. 1972 - An article from "Down to Earth" magazine entitled "Residues in milk and meat and safety to livestock from the use of phenoxy herbicides in pasture and rangeland".
10. - A pamphlet by Canada Food and Drug, "Safety... FDD's Concern with Pesticides".

- 3 -
BRITISH COLUMBIA

DEPARTMENT OF AGRICULTURE

11. A pamphlet by C. D. A. "Federal Control Product Regulatory Procedure".

I trust that this will provide answers to your questions and also indicate that the B. C. Government is acting in a highly responsible manner in their approach to total pesticide use. I would appreciate it if this information could be made available to others in your community.

Yours truly,



C. L. Neilson
Provincial Entomologist

and Chairman, B. C. Interdepartmental
Pesticide Committee

CLN/jml
Enclosures

cc: ☒ Hon. W. D. Black
Hon. C. M. Shelford

COPY



DEPARTMENT OF HIGHWAYS

Office of Regional Engineer,
101 Baker Street,
Nelson, British Columbia.

January 16th, 1970.

Mr. J. Cornor,
Provincial Apiarist,
British Columbia Department of Agriculture,
Court House,
VERNON, British Columbia.

Dear Mr. Cornor:

The Department of Highways has been engaged in a chemical weed and brush control program for the past eight years. Each year, we receive one or two complaints from bee keepers claiming the chemicals have killed their bees. The chemicals used by the Department are 2-4-D, 2-4-5T and Tordon applied at Department of Agriculture specified rates.

The Department of Highways is also engaged in a slope re-vegetation program. In this program it is our practice to fertilize seeded slopes with urea. A bee keeper has made a claim against the Department for destroying 2/3 of his hive because of fertilizer application near his apiary.

Are the mentioned chemicals toxic to bees?

Are there chemicals on the market that will repulse bees and can be added to weed and brush killers?

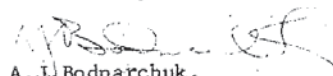
Is there any legislation relating to prohibition of spraying in the vicinity of an apiary?

Can apiarists be made to control weeds on their property under the Noxious Weeds Act? Can they also be made to control weeds along highway right-of-way adjacent to their property because of their refusal to allow chemical control?

Are not a few dead bees a common daily occurrence in each hive?

We are planning our weed and brush control program for 1970 and answers to the above questions would be appreciated.

Yours truly,


A. J. Bodnarchuk,
Regional Landscape Supervisor.

AJB/mm



APICULTURE BRANCH
VERNON, BRITISH COLUMBIA

January 21st, 1970



Mr. A.J. Bodnarchuk
Regional Landscape Supervisor
Office of Regional Engineer
Department of Highways
101 Baker Street
Nelson, B. C.

Dear Mr. Bodnarchuk:

I acknowledge your letter of January 16th, 1970 in which you enquire about the toxicity to bees of 2-4-D, 2-4-5T and TORDON applied at Department of Agriculture specified rates.

Bulletin 709 "The Bee Poisoning Hazard From Pesticides" written by Dr. Carl Johansen of Washington State University mentions (page 6) toxicity of 2-4-D and related compounds as being not dangerous to bees. There have been some reports of 2-4-D being injurious under large scale field conditions but this would not apply to your roadside spraying programs. I have provided you with a copy of the above mentioned publication. As for Picloram (Tordon) there is no information to hand concerning bee toxicity although the acute oral toxicity of this compound is quite low LD/50 being 750-8200 mg. per kilogram of body weight.

As for loss of bees from fertilizer application this has not been observed nor has it been reported. I am attaching photo copies of pages taken from the Annual Review of Entomology Vol. 13, 1968. You will note the reference to injury of bees by the use of fertilizers as being negative. There is also a section reporting on the use of Repellents and Attractants. The Use of Bee Repellents when applying pesticides for the purpose of reducing bee losses has been under investigation for many years with negative results. In fact investigators have been unable to come up with a completely satisfactory repellent to remove bees from honey supers before extracting.

As for legislation relating to pesticide or herbicides near apiaries; I know of no such legislation. We administer the Apiaries Act, the purpose of which is to control bee diseases and "Honey Grading Regulations". Neither of which control pesticide, fungicide or herbicide applications.

Continued 2/

Mr. A.J. Bodnarchuk
Page 2
January 21st, 1970

"Yes", a few dead bees are a common daily occurrence in each hive and of course the severity of such losses may be increased by the presence of any one of the adult brood diseases, chief of which are Nosema, Septicemia, and Bee Paralysis.

As for responsibilities under the Noxious Weeds Act I would suggest that you write to Mr. N. Putnam, Field Crops Commissioner, B.C. Dept. of Agriculture, Douglas Building, Victoria, B.C. Mr. Putnam administers the Noxious Weeds Act.

I have invited Dr. Carl Johansen to participate in a program on the subject of Bee Poisoning and hope that I may hear from you re your proposed date.

Yours sincerely,


J. Corner,
Provincial Apiarist

JC:jp

*Do you receive annual copies of the
'Oregon Weed Control Handbook'?*
*If not you should. Write to Oregon
State University Bookstores, Inc.
Oregon State University, Corvallis Oregon, USA.
\$3.00 per copy.*

cc: R.P. Finegan
R.C. Sutton
Dr. J. Smith
G. Nelson

DEPARTMENT OF AGRICULTURE



RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B.C.

VICTORIA

2403

APR 18 1972

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B.C.
APR 25 1972

April 17, 1972

Mr. M. Pope
Landscape Supervisor
Department of Highways
VICTORIA, B.C.

Dear Mr. Pope:



Re: Proposed Herbicide Treatment (1972)
by B.C. Department of Highways in
Fernie, Cranbrook, Rossland/Trail districts

The other members of our Interdepartmental Pesticide Committee have reviewed the above proposals as submitted March 10, 1972.

There are no objections to the program by Agriculture, Forestry and Health providing our Basic Requirements are observed.

I am attaching a copy of Fish and Wildlife's comments for your further guidance. I believe that these comments are similar to those expressed by Mr. Finegan when we met with you and your landscape supervisor here in Victoria, April 11. Basically they can be summarized as:

- a) observing our Basic Requirements
- b) use foliar sprays only when other methods are not satisfactory and there is an urgent reason for maintenance.
- c) use of spot treatments for target species and avoidance of blanket treatment for large areas.
- d) using due care to avoid unnecessary disturbance of or damage to birds and wildlife.
- e) particular care of chemical selection when used in situations when drainage is involved.

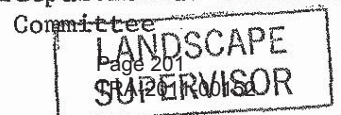
I trust these comments will be of use in the implementation of this program.

Yours truly,

C.L. Neilson, Chairman
B.C. Interdepartmental Pesticide
Committee

CLN/jdw
encl:

239871



DEPARTMENT OF RECREATION AND CONSERVATION
FISH AND WILDLIFE BRANCH

MEMORANDUM

RECEIVED
LANDSCAPE SUPERVISOR

APR 24 1972

DEPARTMENT of HIGHWAYS

TO C. L. Neilson

Provincial Entomologist

FROM R. P. Finegan

Wildlife Biologist

DATE April 14, 1972

FILE No. 40-06-02

Re: Proposed Herbicide Treatment (1972)
by B. C. Dept. of Highways at Fernie,
Cranbrook, Rossland/Trail

Our comments are:

1. Weed control on shoulders, Highway #3 Wardner to Crowsnest - 10 acres

Simazine at 15 lbs/acre during September, 1972

No objections are raised. Every precaution should be taken to avoid entry of pesticide into water and "basic requirements" should be observed.

2. Drainage and noxious weed control, Highway #3 Wardner to Crowsnest (Thistle, knapweed, alder, willow) Highway #93 Elko-Rossville Jct. 186 acres

2.4-D/2.4.5-T in water at 4 lb/acre by foliage spray during June, 1972. Approx. 30 foot strip to be treated on both sides of Highway.

The Fish and Wildlife Branch objects to blanket application of foliage spray. However, no objection will be raised to spot treatment of the target species where these are creating problems of maintenance etc., including those target species which are agricultural weeds where they are creating an agricultural problem. Care should be taken to avoid disturbance of nesting birds or contamination of water, and "basic requirements" should be observed.

3. Improvement of drainage. Highways 3, 95 and 93 - 70 miles; (noxious weeds) Highway 95 - 7 miles, Highway 95A - 29 miles, Highway 93 and 95 - 35 miles
Total - 120 acres.

2.4-D in water at 3 lbs. ai/acre by foliage spray during May 15 - June 15, 1972.

The purpose of the spray program is given as Improvement of Drainage, the target species are "noxious weeds". The treated areas are to range in width from 12 feet to 100 feet on both sides of the road.

. . . . 2

C.L. Neilson, cont.

Our comments are:

- (a) There is an intrinsic objection to the use of foliage spray, but no objections are raised to spot applications to target species for urgent reasons of maintenance, safety etc. along the right-of-way.
 - (b) Where "improvement of drainage" is involved there would appear to be danger of contamination of water from the use of water soluble herbicides. Mechanical clearing would therefore appear to be a more suitable technique.
 - (c) Where "noxious weeds" are involved there is presumably an agricultural problem. No objection will be raised to spot treatment of target species which are agricultural weeds in situations where this is necessary to avoid agricultural problems.
 - (d) Care should be taken to avoid disturbance of nesting birds and "basic requirements" should be observed.
4. Improvement of drainage. Highways 3, 95 and 93 - 70 miles;
(noxious weeds) Highway 95 - 7 miles, Highway 95A - 29 miles,
Highway 93 and 95 - 35 miles
Total - 120 acres.

Relates to improvement of drainage and sight distance. Target species include noxious weeds, willow, rose bush and alder.

Willow, rose bush and alder have value in wildlife habitat and should not be unnecessarily removed.

5. Improvement of drainage. Highways 3, 95 and 93 - 70 miles;
(noxious weeds) Highway 95 - 7 miles, Highway 95A - 29 miles,
Highway 93 and 95 - 35 miles
Total - 120 acres.

Relates to maintenance of sight distance.

6. Improvement of drainage and sight distance. Streets and roads in immediate
(Thistle, Mullein, Rose bush, Willow) area of townsites of Cranbrook
and Kimberley. 6.25 acres.

Tordon 10K at 4 lbs/acre applied by broadcast method during
April 4 - 14, 1972.

Tordon should not be used for improvement of drainage on the ground that its use in such situations will lead to contamination of water. Mechanical control should be considered as alternative.

. . . . 3

The target species are of value as elements of wildlife habitat and should not be unnecessarily removed. However, no objections are raised to spot treatments of target species where there are sight distance problems etc. involving road safety and maintenance.

7. Improvement of drainage and sight distance. Cranbrook. Highways 95, 3,
(Fir, Pine Tamarack) 93 and 95A - 25 acres

Tordon 101 (Picloram/2.4-D) in water by spot foliage application during June 23-30, 1972.

No objection is raised to the spot treatment of the target species where these are creating a problem of road maintenance, sight distance etc. However, previous comments on use of chemicals pesticides to treat drainage should be noted, and care should be taken to avoid disturbance of nesting birds. "Basic requirements" should be observed.

8. Control of drainage growth on road shoulders Cranbrook
and to bottom of ditch. Wardner-Fort Steele
(grass and weeds) 22.5 miles

Atrazine in water at 16 lbs/acre applied as ? dormant spray in September 11 - 22, 1972.

This does not appear to be a dormant treatment. The application is heavy and there would appear to be danger of water contamination because of the use in treating drainage areas and ditches. We would like to discuss this particular treatment with Highways Department officials before expressing a final opinion.

9. Improvement/Beautification Rossland/Trail. Highway 3
(Alder, Maple, Fir, Salmonberry Paulson to Fruitvale; 3B
Thistle, Knapweed etc.) Nancy Green Lake to Rossland;
Highway 22, 22A and Sundry side roads.
60 acres.

Simazine in water at 20 lbs/acre during mid-April to mid-September.

This is actually weed control on shoulders. No objections are raised but entry of simazine into water must be avoided.
"Basic Requirements" should be observed.

10. Improvement of sight distance, drainage Rossland/Trail. Highway 3
and beautification (All varieties of Paulson to Fruitvale; 3B
brush and plants) Nancy Green Lake to Rossland;
Highway 22, 22A and sundry side roads.
110 acres.

. . . . 4

2.4-D/2.4.5-T in water/oil at 4 lb./acre applied as foliage spray (spot treatment) during mid-July - end of August.

Foliage spraying is regarded as posing dangers to wildlife and wildlife habitat. However, no objections are raised to spot treatment of target species in situations where there are urgent problems of road maintenance, obstruction of vision etc. Care should be taken to avoid disturbance of nesting birds or unnecessary removal of plant species of value as wildlife habitat. "Basic Requirements" should be observed.

11. Improvement of sight distance, drainage and beautification (brush) Rossland/Trail Highway 3
Paulson to Fruitvale; 3B
Nancy Green Lake to Rossland;
Highway 22, 22A and sundry side roads.
40 acres.

2.4.5-T at 4 lb/acre by foliage application (spot treatment)

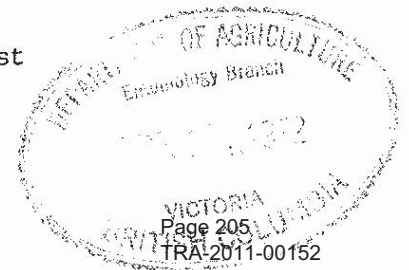
Foliage spraying is regarded as posing dangers to wildlife and wildlife habitat. However, no objections are raised to spot treatment of target species in situations where there are urgent problems of road maintenance, obstruction of vision etc. Care should be taken to avoid disturbance of nesting birds or unnecessary removal of plant species of value as wildlife habitat. "Basic Requirements" should be observed.

12. Improvement of sight distance, drainage and beautification (All plant species) Rossland/Trail Highway 3
Paulson to Fruitvale; 3B
Nancy Green Lake to Rossland;
Highway 22, 22A and sundry side roads.
40 acres.

2.4-D at 4lb./acre by foliage application (spot treatment)

Foliage spraying is regarded as posing dangers to wildlife and wildlife habitat. However, no objections are raised to spot treatment of target species in situations where there are urgent problems of road maintenance, obstruction of vision, etc. Care should be taken to avoid disturbance of nesting birds or unnecessary removal of plant species of value as wildlife habitat. "Basic Requirements" should be observed.

R.P. Finegan
R.P. Finegan
Wildlife Biologist



March 7, 1972.

Attention: Mr. R.C. Ron Lelliott

Van Waters & Rogers Ltd.,
Box 2009,
2625 Skeena St.,
Vancouver 3, British Columbia.

Dear Sirs:

Re: Types "A", "B", and "C"
Weed and Brush Killer and
Tordon 10K, Cranbrook

Confirming telephone conversation of March 6th, please arrange to ship the following as soon as possible:

270 gallons of weed and brush killer to the Dept. of Highways, Cranbrook as noted below:

90 gallons (2-45-gal. drums) Type "A" weed killer, 2-4-D.

90 gallons (2-45-gal. drums) Type "B" weed and brush killer, 2-4-D plus 2-4-5-T.

90 gallons (2-45-gal. drums) Type "C" brush killer, 2-4-5-T.

All covered by Control #12.

Also, please arrange to ship 150 lbs. Tordon 10K pellets (3 - 50-lb. drums) to the Dept. of Highways, Cranbrook, Control #14.

In both the above instances shipping advice and invoice to Mr. G.E. Austin, District Superintendent at Cranbrook.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAL:he

2403

MR SJ DIXEY
REG OFFICE MANAGER
NELSON

MC FILE 2403

RE WEED AND BRUSH KILLER AND TORDON 10-K - CRANBROOK

REFERENCE YOUR TELETYPE MARCH 6 11:12 AM ARRANGEMENTS

MADE SAME DAY WITH VAN WATERS & ROGERS LTD ~~XXY~~ 2625

SKEENA STREET VANCOUVER 3 BC TO SHIP THE FOLLOWING:

270 GALLONS WEED AND BRUSH KILLER MADE UP AS 90
GALLONS (2 - 45-GAL DRUMS) TYPE "A" WEED KILLER (2-4-D)

90 GALLONS (2 - 45-GAL DRUMS) TYPE "B" WEED AND BRUSH
KILLER (2-4-D PLUS 2-4-5-T)

90 GALLONS (2 - 45-GAL DRUMS) TYPE "C" BRUSH KILLER
~~XXXXXXXXXXXX~~ (2-4-5-T)

ALL COVERED BY CONTROL #12. AND WITH SAME FIRM 150 LBS
(3 - 50-LB DRUMS) 10-K PELLETS TO CRANBROOK CONTROL #14.

IN ALL INSTANCES SHIPPING ADVICE AND INVOICE TO GK AUSTIN
AT CRANBROOK

AE RHODES
COMPT OF EXPENDITURE

VICTORIA
MARCH 7/72
11:55 AM

OK NELSON

March 6, 1972.

Attention: Mr. R.G. Ron Lelliott

Van Waters & Rogers Ltd.,
Box 2009,
2625 Skeena St.,
Vancouver 3, British Columbia.

Dear Sirs:

Re: Type "A" and Type "C" Weed and
Brush Killer, Kamloops

Confirming telephone conversation of March 6, please arrange to ship 945 gallons of weed and brush killer to the Dept. of Highways, 1613 Valleyview Drive, Kamloops.

495 gallons (11 drums) Type "A" weed killer, 2-4-D,
Control #11.

450 gallons (10 drums) Type "C" brush killer, 2-4-5-T,
Control #11.

Shipping advice and invoice to Mr. H.F. Blunden, District Superintendent, Dept. of Highways, 523 Columbia St., Kamloops.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI:ha

2403

MR HF BLUNDEN
DISTRICT SUPT
KAMLOOPS

NO FILE 2403

RE TYPE "A", TYPE "C" WEED AND BRUSH KILLER AND
HYVAR X BROMACIL

REFERENCE YOUR TELETYPE MARCH 3RD 4:59 PM ARRANGEMENTS
MADE MARCH 6TH FOR THE FOLLOWING SHIPMENTS TO BE MADE TO
1613 VALLEYVIEW DRIVE, KAMLOOPS, WITH INVOICES TO YOURSELF:

WITH VAN WATERS & ROGERS LTD., 2625 SKEENA STREET
VANCOUVER 3 BC

495 GALLONS, 11 DRUMS, TYPE "A" WEED KILLER, 2-4-D,
CONTROL #11.

450 GALLONS, 10 DRUMS, TYPE "C" BRUSH KILLER, 2-4-5-T,
CONTROL #11.

WITH MOLSBERG CHEMICAL SPRAY CO., 4698 VANGUARD RD
RICHMOND BC

200 LBS (4 - 50-LB DRUMS) HYVAR X BROMACIL, CONTROL #3.

A E RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
MARCH 6/72
3:45 PM

OK KAM

COMPTROLLER OF EXPENDITURE
DEPARTMENT OF HIGHWAYS
VICTORIA, BRITISH COLUMBIA

ATTENTION: J A INGRAM

SUBJECT: CHEMICAL SPRAYS

PLEASE HAVE THE FOLLOWING SHIPPED TO CRANBROOK, BRITISH COLUMBIA

1 - 25 GALLON DRUM TORDON 101 *Control #8 ✓*

500 POUNDS PRIMATOL A-20W *Control #5*

2 - 45 GALLON DRUMS TYPE A 2-4-D WEED KILLER

2 - 45 GALLON DRUMS TYPE B 2-4-D, 2-4-5-T WEED & BRUSH KILLER

2 - 45 GALLON DRUMS TYPE C 2-4-5-T BRUSH KILLER

150 POUNDS TORDON 10-K PELLETS *Control #14 ✓*

SHIPPING ADVICE AND INVOICE TO DISTRICT SUPERINTENDENT CRANBROOK.

S J DIXEY
REGIONAL OFFICE MANAGER
NELSON

MARCH 6/72
11:12 AM

FILE: R3-80-49

3.VAYCDAYCD
OK VIC

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

2403

COMPTROLLER OF EXPENDITURE
DEPT OF HIGHWAYS
VICTORIA

MAR 3 1972

RE WEED SPRAYS

ANSWERED *gld*
NOTED *6/3/72*
DATE

PLEASE ARRANGE TO SHIP THE FOLLOWING ~~WEED SPRAYS~~ TO

DEPT OF HIGHWAYS 1613 VALLEYVIEW DRIVE KAMLOOPS BC VIA TRUCK

~~450~~⁴⁹⁵ GALLONS OF TYPE "A" 2-4-D WEED KILLER IN 45 GALLON DRUMS

²⁴⁵⁻⁷
450 GALLONS OF TYPE "C" :TWARATAT WEED KILLER IN 45 GALLON DRUMS

200 LBS OF HYVAR X BROMACIL SOIL STERILANT IN 50 LB DRUMS

INVOICES TO DISTRICT SUPERINTENDENT DEPT OF HIGHWAYS

523 COLUMBIA ST KAMLOOPS BC

H F BLUNDEN

DISTRICT SUPERINTENDENT
KAMLOOPS

Control #11

control #13

CORRECTION

TYPE "C" 2-4-5 T WEED KILLER

MARCH 3/72
4:59

SC 38:
SC 38:
OK VIC

235127

February 17, 1972.

VanWaters & Rogers Limited,
Box 2009, 2623 Skeena Street,
Vancouver 3, British Columbia.

Attention: Mr. E.G. (Ron) Lelliott

Dear Sir:

Re: Type B - Weed & Brush Killer,
Kamloops

Confirming telephone conversation of February 17th,
please arrange to ship as soon as possible 990 gallons (22 - 45 gal.
drums) Type B, weed and brush killer (2-4-D plus 2-4-5-T) to
Department of Highways, 1613 Valleyview Drive, Kamloops. Control
No. 10.

Shipping advice and invoice to O.T. King, District
Office Manager, Department of Highways, 523 Columbia St., Kamloops,
B. C.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI/dkf

2403

MR O T KING
DISTRICT OFFICE MANAGER
KAMLOOPS

HO FILE 2403

RE TYPE B - WEED AND BRUSH KILLER

REFERENCE TELEPHONE CONVERSATION OF FEB 17, ARRANGEMENTS MADE
SAME DAY WITH VAN WATERS AND ROGERS LIMITED 2625 SKEENA STREET
VANCOUVER 3, TO SHIP 990 GALLONS (22-45 GAL DRUMS) TYPE B
WEED AND BRUSH KILLER (2-4-D PLUS 2-4-5-T) TO 1613 VALLEYVIEW
DRIVE KAMLOOPS. INVOICE TO O T KING AT 523 COLUMBIA ST KAMLOOPS.
IT IS UNDERSTOOD THAT THIS MATERIAL IS ACTUALLY FOR M J O'CONNOR
AT MCBRIDE BUT YOU CAN ARRANGE YOUR VOUCHERING OF ACCOUNTS WITH
YOUR OWN DISTRIBUTION

AE RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
FEB 17/72
4:00 PM

OK KAM

February 14, 1972.

VanWaters & Rogers Ltd.,
Box 2009, 2625 Skeena Street,
Vancouver 3, British Columbia.

Attention: Mr. R.G. (Ron) Lelliott

Dear Sir:

Re: Tordon 22K, Tordon 10K,
Types A, B & C - Weed and Brush Killer

Confirming telephone conversation of February 14th, kindly arrange to ship the following to the Department of Highways, Storage Buildings, 1613 Valleyview Drive, Kamloops with the shipping advice and invoices to Mr. S. Palopski, Regional Landscape Engineer, Department of Highways, 523 Columbia Street, Kamloops.

50 gallons (10 - 5 gallons U.S. Drums) Tordon 22K
Brush killer. Control No. 12.

100 lbs. (2 - 50 lb drums) Tordon 10K pellets.
Control No. 13.

1 - 45 gallon drum Type A, Weed Killer (2-4-D).
Control No. 9.

90 gallons (2 - 45 gallon drums) Type B, weed and
brush killer - (2-4-D plus 2-4-5-T). Control No. 9.

90 gallons (2-45- gallons drums) Type C, brush
killer (2-4-5-T). Control No. 9.

Yours truly,


A. E. Rhodes,
Comptroller of Expenditure.

JAI/dkf
cc: Mr. O.T. King,
District Office Manager,
Kamloops.

MP S PALOFSKI
REGIONAL LANDSCAPE SUPER
KAMLOOPS

HO FILE 2403

RE TORDON 22K, 10K - TYPES A, B, C, WEED AND BRUSH KILLER
XYLOL

REFERENCE YOUR TELETYPE FEB 11 3:16 PM ARRANGEMENTS MADE FEB 14
AS FOLLOWS:

WITH CANADIAN PITTSBURGH INDUSTRIES LIMITED 865 TERMINAL AVENUE,
VANCOUVER 4, TO SHIP 4 GALLONS (IN ONE GALLON CONTAINERS)
XYLOL COVERED BY CONTROL NO 5.

WITH VANWATERS & ROGERS LIMITED 2625 SKEENA STREET VANCOUVER 3
TO SHIP 50 GALLONS (IN 10-5 GALLON US DRUMS) TORDON 22K BRUSH
KILLER. CONTROL NO 12.

100 LBS TORDON 10K PELLETS (2 - 50 LB DRUMS) CONTROL NO 13.

1 - 45 GALLON DRUM, TYPE A, WEED KILLER (2-4-D). CONTROL NO 9.

90 GALLON (2 - 45 GALLON DRUMS) TYPE B WEED AND BRUSH KILLER
(2-4-D PLUS 2-4-5-T) CONTROL NO 9.

90 GALLON (2 - 45 GAL DRUMS) TYPE C BRUSH KILLER (2-4-5-T)
CONTROL NO 9.

IN ALL INSTANCES SHIPPING TO HIGHWAYS 1613 VALLEYVIEW DRIVE
WITH INVOICES TO YOURSELVES AT 523 COLUMBIA STREET KAMLOOPS

AE RHODES
COMPTROLLER OF EXPENDITURE

VICTORIA
FEB 14/72
3:43 PM

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.

2403

FEB 11 1972

A E RHODES
COMPTROLLER OF EXPENDITURE
DEPT OF HWYS
VICTORIA

ANSWERED *[Signature]*
NOTED *[Signature]*
DATE *14/2/72*

SUBJ. WEED SPRAY.

PLEASE ARRANGE TO SHIP THE FOLLOWING AT YOUR EARLIEST CONVIENCE TO
DEPT OF HIGHWAYS 1613 VALLEYVIEW DRIVE , KAMLOOPS B C , ATTN.
REGIONAL LANDSCAPE SUPERVISOR KAMLOOPS.

X 50 ONLY GALLONS TORDON 22K IN 5 GALLON CANS. *Control #12*

V 45 ONLY GALLONS TYPE "A" 2-4-D IN 45 GALLON DRUM. — *Control 9*

V 90 ONLY GALLONS TYPE "B" 2-4-D AND 2-4-5-T IN 45 GALLON DRUMS. *Control 9*

90 ONLY GALLONS TYPE "C" 2-4-5-T IN 45 GALLON DRUMS. — *Control 9*

V 4 ONLY GALLONS XYLOL (TERRAZEAL THINNER) IN 1 GALLON CONTANIER. *Control #5*

X 100 ONLY 16S TORDON 10K PELLETS IN 50 LB. DRUMS. *Control #13*

INVOICE DIRECT TO REGIONAL LANDSCAPE SUPERVISOR KAMLOOPS.

S PALOPSKI
REGIONAL LANDSCAPE SUPERVISOR

KAMLOOPS
FEB 11/72.
3.16 PM
OK VIC

232034

February 10, 1972.

S22

British Columbia.

Dear S22

Re: Bee Damage

Further to my letter of February 3rd the Department has now reviewed the file concerning your claim that the roadside spraying program has caused damage to your bee apiary. Your first letter dated September 3rd, 1968 addressed to our Regional office at Nelson stated that a vehicle licence number J9-227 sprayed past your property resulting in the loss of three fruit trees and a number of bees. Upon checking it was found that this vehicle was a Hydroseeder which was applying grass seed and fertilizer to the roadside. Neither of these materials could have possibly caused any damage to your property.

In your letter to this office July 18th, 1969, you indicated that "truck 1711, licence #J10748" was spraying past your property. Upon checking we found this was Unit S-1511 and it was one of our spray trucks. At the time the crew was using 2,4-D and 2,4,5-T, both which are non-toxic herbicides. We have checked with the provincial apiarist in Vernon and he reports that these materials are not injurious to bees.

In your most recent letter to the Department you mention the use of D.D.T. I must advise that the Department of Highways has never used this product or any other insecticide for that matter, nor do we plan to. Our interest is in weed control which calls for the use of herbicides. Any use must have the approval of the inter-Departmental committee for the safe use of pesticides. Furthermore, our spraying programs are carried out by licenced applicators who have attended courses and have written and successfully passed examinations set by the Department of Agriculture.

It is regrettable that you have had this problem with your bee population but according to all of the information I have at hand, the Department could not accept any responsibility.

Yours very truly,


Minister.

August 22nd, 1969

Mr. G. A. Gavin
Insurance & Claims Officer
Government of British Columbia
Parliament Buildings
Victoria, B. C.

Dear Mr. Gavin:

Re: Damage to Bee Hives
Claimant: S22
Your File No. 2403

I acknowledge your letter of August 11th in which you bring to my attention a letter received from the Honourable Minister of Highways, from S22 British Columbia. I note S22 alleges that a number of his bee colonies were killed as a result of weed spraying carried out by the Department of Highways.

In answer to your specific enquiry concerning the use of 2,4-D and 2,4,5T, I am of the opinion that if this was the mixture that was used, then it would not be hazardous to any colony of bees. Upon receipt of your letter I telephoned Dr. Carl Johansen who is an authority on bee poisoning but unfortunately he was out of his office and not expected back for at least one week. I am sending you a copy of his most recent publication "The Bee Poisoning Hazard From Pesticides", publication 709 and if you will refer to page 5, you will note that I have underlined several paragraphs dealing with this subject.

For your information I dispatched an inspector to check on S22 apiary. He arrived on August 18th at S22 s. 22(1) and made two attempts to talk to S22 4:00 p.m. and 7:00 p.m. that same day, unsuccessfully. He again tried on August 19th and as S22 was still not home, he proceeded with his inspection.

S22 owns six colonies and the condition of these colonies is as follows:

"There were six hives in his yard. ~~Two~~ of these were without bees, apparently having died during the winter. I found the

Continued 2/

Mr. G. A. Gavin
August 22nd, 1969
Page 2

other four colonies as follows:

One colony with twenty frames of bees and 120 pounds of honey
One colony with fifteen frames of bees and 75 pounds of honey
One colony with ten frames of bees and 50 pounds of honey
One colony with eight frames of bees and 30 pounds of honey

There were no dead bees in front of entrances, whether or not, these colonies were strong in July, would be difficult to prove at this time."

"P.S. S22 colonies were located approximately fifty yards from the highway."

Finally I would like to state that in my years of experience with both federal and provincial Departments of Agriculture, at which time I have been constantly associated with beekeeping, we have never encountered any situation where colonies have been completely destroyed as a result of herbicide applications. As Dr. Johansen points out in his publication, the major problem we have experienced has been the damaging effect of herbicides on bee pastures. Dr. Johansen points out that some investigators have demonstrated honeybee injury from 2,4-D type materials in large scale field conditions, but to date we have not encountered any indisputable evidence of such a case.

If you want to telephone Dr. Johansen, or write to him, his address and telephone number is as follows:

Dr. Carl Johansen
Department of Entomology
Washington State University
Pullman, Washington, U.S.A.

Phone: 335-3564

I trust this information will be helpful and if you require further assistance, please do not hesitate to write.

Yours very truly,

J. Corner,
Provincial Apiarist

JC:jp
Encl. 1

Copy to Mr. Johansen

February 7, 1974.

Mr. C. H. Nelson,
Field Crops Commissioner,
Department of Agriculture,
Buildings.

Dear Mr. Nelson:

Re: Inventory of Pesticides.

Attached is an inventory of the pesticides that this Department has as of January 1st, 1974. Some of it is stored in Kamloops and the remainder in various Districts throughout the Province.

The totals are somewhat staggering and if you have any suggestions as to the disposition of the products it would be sincerely appreciated.

As far as this Department is concerned we will be using none of it during 1974, in keeping with the Department's policy and the findings of the Royal Commission Inquiry into the use of Pesticides.

Yours very truly,



Michael Pope,
Senior Landscape Supervisor.



MP/jc

INVENTORY OF PESTICIDES AS OF JAN. 1/74

PESTICIDE	R-1	R-2	R-3	R-4	TOTALS
2,4-D	450 g	540 g	1125 g	110 g	2225 Gm
2,4,5-T	555 g	270 g	1547 g	7 g	2379 Gm
4-D + 2,4,5-T		1372 g	540 g	2305 g	4217 Gm
ORDON 101	400 g	550 g	400 g	355 g	1705 Gm
ORDON 212		54 g			54 Gm
ORDON 10K		900 lbs	1500 lbs	1160 lbs	3560 lbs
IMAZINE 50W	5605 lbs		80 lbs	725 lbs	1910 lbs
IMAZAPHOS 80W		3350 lbs	1450 lbs	3500 lbs	8300 lbs
LYNAR X		900 lbs	950 lbs	50 lbs	1900 lbs
UN CL AGOW		200 lbs	750 lbs	350 lbs	1300 lbs
LATAK	1150 lbs				1150 lbs
AMTAIN GF12S	65 g				65 Gm
AMTAIN 3	69 g				69 Gm
LISTIK				50 lbs	50 lbs
ISKORAP			25 g		25 Gm
STERON 3-30		135 g			135 Gm
ShoGrow		11 g			11 Gm

Regional Highway Engineer
Burnaby
Kamloops
Nelson
Prince George

Victoria
December 14, 1973.

2403

Inventory of Pesticides

If you do not already have the information would you please circularize all Districts in your Region requesting a complete inventory of all pesticides now held in each District.

This inventory should include all weed and brush chemicals such as 2,4-D, 2,4,5-T, Tordon, and sterilants such as Simazine, Atrazine, Hyvar X and others. Please list the quantity in pounds and gallons and also the size of the container, i.e. 45 gallon drum, 25 gallon drum, 50 pound bag, etc.

The information is required as soon as possible as we are endeavoring to find means of disposing or storing the materials before the containers become rusted or damaged or the identity is obliterated.

Your immediate attention to this would be appreciated.


Michael Pope,
Senior Landscape Supervisor.


MP/jc

File: 2403/324592

February 3, 1977

S22

Dear

S22

Re: Vegetation Control Program

I wish to thank you for your letter of January 24 together with the attached newspaper clipping concerning the Highways department program of vegetation control. The newspaper story does seem contradictory, but I believe it can be clarified.

The largest part of the Ministry of Highways and Public Works vegetation control program involves mechanical mowing by machine or hand brushing and no chemical herbicides are used. This is what was meant when I said no chemical defoliant was being used on the highway right-of-way. We do use a small amount of chemical sterilant on the highway shoulders and around signs and guardrails because obviously mowing or cutting would be quite ineffective and useless for that kind of work. The chemical Simmaprim, used for this purpose, does not contain 24D or 245T. This chemical is not a defoliant and this is the reason there may have been some apparent contradiction.

The third part of the program does involve a spot application of herbicide under the Noxious Weed Act which makes the government responsible for controlling noxious weeds in areas where they may affect adjacent farmland. Applications are made on specific areas with heavy infestations but not along the right-of-way as a whole. None of the chemicals used for

. . . /2

Page 2


February 3, 1977

this purpose contain 24D or 245T with the exception of one, and it contains 40 percent 24D. It is being phased out as the stock depletes. Again I would emphasize that this is a spot program which does not involve a general spraying along the highway right-of-way.

It should also be pointed out that prior to any spray application, as limited as it is, the Ministry of Highways and Public Works obtains approval from the Ministry of Agriculture and the inter-departmental pesticide committee. All regulations set by these agencies are strictly adhered to and any chemicals used by the Ministry have been tested and approved by Agriculture Canada Plant Products Division.

Our Ministry is planning to expand the mechanical brush cutting techniques further throughout the province by providing more and better equipment and by improving and levelling rights-of-way so that more mechanical mowing is possible. However, there are certain limited situations where mowing is totally impractical and ineffective, particularly in the noxious weed program. This is where a limited amount of chemical spraying will have to continue if any control is to be maintained and farmland protected. I trust this will help to clarify the situation.

Yours very truly,


Alex V. Fraser
Minister of Highways
and Public Works

RJB/jw Prepared by Information Office

KKX

Heck

Vancouver Sun

Nov 9, 1976

SECTION **4**

***43

Employee says highway crews using sprays

NELSON (CP) — Highways Minister Alex Fraser says his department is not using defoliants, but a regional supervisor says it is.

Tony Bodnarchuk, regional highways landscape supervisor, said Monday that defoliant chemicals are being used on permission from the department in Victoria.

Fraser said Sunday that use of defoliant chemicals is contrary to government policy.

Bodnarchuk said that "We were given directions from Victoria that we could go ahead with limited use of herbicides this year."

"The use of defoliant is non-existent as far as I'm concerned," Fraser said Sunday, adding that when he became minister there was a written policy existing that forbade use of chemical defoliants for control of growth along highway rights-of-way.

Bodnarchuk said his regional office has been engaging in weed-control spraying and "will continue to do so unless Mr. Fraser puts a moratorium on it."

Given Fraser's comments, he said he would seek clarification from Victoria.

Fraser said highways crews are supposed to cut weeds with mowers, but "there seems to be some reluctance to using this method."

He said the B.C. Cattlemen's Association is pressuring the government to use the sprays because noxious weeds spread from rights-of-way onto grazing areas.

2403

Jan 24, 1977

Dear Sir:

Is this clipping true about the use of defoliants?

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B.C.

S22

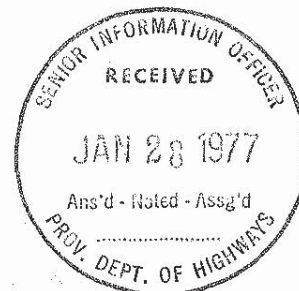
JAN 28 1977

ANSWERED.....

NOTED.....

DATE.....

Feb 3/77



JAN 27 1977
VICTORIA, B.C.
324592

Mr. Denis K. O'Gorman
Acting Director
Environment and Land Use
Technical Committee
BUILDINGS

January 21, 1977

Re: ROADSIDE VEGETATION CONTROL PROGRAM

I am enclosing 15 copies of request to the Committee for clarification of the policy affecting Highways' roadside vegetation program.

It will be appreciated if this could be reviewed to determine if the Committee agrees with continuation of our current program.

R. G. Harvey
R. G. Harvey
Deputy Minister

WSB:w1
(Enc. 15)

cc - The Honourable Minister (w/e)

cc - Senior Maintenance Engineer (w/e)

MINISTRY OF HIGHWAYS AND PUBLIC WORKS

ROADSIDE VEGETATION CONTROL PROGRAM

REQUIRED: Clarification of policy for continuing the following vegetation control program presently employed by the Ministry.

1. Brush Control:

Mechanically removed by machine or hand brushing. This is done at a height of 6" to 3 feet wherever possible to reduce unsightly scars. The cut refuse is either mulched in place or, in the case of large branches, hauled away and burnt. Absolutely no chemical defoliant is used (e.g.: 2,4-D and 2,4,5-T).

It is also realized that native trees and shrubs can be an inexpensive and natural form of highway beautification, consequently only vegetation hazardous to traffic movement is removed. See attached maintenance standards 800.1, 800.2 and 800.3 governing present practise for vegetation control and grass mowing.

2. Shoulder Sterilization:

Application of chemical sterilant (Simmaprim) to a 1 to 4 foot width of gravel shoulder, around signs and guard rails. As this spray application is usually a preventative measure, no vegetation is present to discolour or be available to animal life.

Simmaprim contains no 2,4-D or 2,4,5-T defoliant which is receiving the majority of public controversy.

3. Noxious Weed Control: (as per the "Noxious Weed Act").

Spot application of herbicide, Tordon 10K and 22K on noxious weeds. These applications are used on specific areas of infestation, not the total length of R/W. No herbicides used by Ministry of Highways contain 2,4-D or 2,4,5-T with the exception of Tordon 101 which contains 40% 2,4-D. This chemical is being phased out as stock depletes.

The use of herbicides is the only effective control of these weeds. Mechanical control would only be effective if roadsides were treated the same as for backyard lawns; graded level and mowed once to twice weekly. To do this would be economically and physically impossible considering the vast areas that must be covered. Most of the right-of-way areas are also impossible to mow with present machinery because of steep slopes and extraneous material on the surface (e.g. - boulders, logs, etc.). It is in these inaccessible areas where the weed problem is greatest.

Weeds are placed in the noxious category because of their seeding habits. These weeds tend to produce seeds throughout the growing season and when mowed often produce seed below the cutting height of mowers.

.../2

GENERAL COMMENTS

Prior to any spray application, approval is requested from the Ministry of Agriculture and the Interdepartmental Pesticide Committee. All regulations set by these agencies are strictly adhered to. All chemicals used by Ministry of Highways and Public Works have been tested and approved by Agriculture Canada, Plants Products Division.

In discussions with the Ministry of Agriculture it has been pointed out that cutting only of noxious weeds would not be effective. It has also been noted that B. C. Hydro attempted a form of mechanical control of their right-of-way and costs were 10 times above those for chemical control.

Complaints against highways spraying program have been minimal with Ministry of Highways and Public Works being indirectly involved because of misuse by other agencies; notably C. P. R. in the Nelson area.

The Ministry is planning to expand mechanical brush cutting techniques and mowing of rights-of-way throughout the Province by the following:

- (a) Providing more equipment (mowers and brush cutters) where it is needed.
- (b) Improving and levelling rights-of-way so that more mechanical mowing is possible.
- (c) Encouraging the use and rental of local farm tractors where they are available.

RECOMMENDATION

Continuation of the current responsible Herbicide Program as outlined under items 1 - 3.

MEMORANDUM

TO Mr. R. G. Harvey,
Deputy Minister,
Ministry of Highways & Public Works, BLDGS.

FROM Senior Maintenance Engineer,
Ministry of Highways & Public Works,
November 29, 1976.

SUBJECT Roadside Spraying Program and
Minister's memo of October 27,
1976.

OUR FILE 2403

YOUR FILE

The vegetation control program presently employed by Ministry of Highways is as follows:

(a) Brush Control:

Mechanically removed by machine or hand brushing. This is done at a height of 6" to 3 feet wherever possible to reduce unsightly scars. The cut refuse is either mulched in place or, in the case of large branches, hauled away and burnt. Absolutely no chemical defoliant is used (e.g.: 2,4-D and 2,4,5-T).

It is also realized that native trees and shrubs can be an inexpensive and natural form of highway beautification, consequently only vegetation hazardous to traffic movement is removed. See attached maintenance standards 800.1, 800.2 and 800.3 governing present practise for vegetation control and grass mowing.

(b) Shoulder Sterilization:

Application of chemical sterilant (Simmapurim) to a 1 to 4 foot width of gravel shoulder, around signs and guard rails. As this spray application is usually a preventative measure, no vegetation is present to discolour or be available to animal life.

Simmapurim contains no 2,4-D or 2,4,5-T defoliant which is receiving the majority of public controversy.

(c) Noxious Weed Control: (as per the "Noxious Weed Act").

Spot application of herbicide, Tordon 10K and 22K on noxious weeds. These applications are used on specific areas of infestation, not the total length of R/W. No herbicides used by Ministry of Highways contain 2,4-D or 2,4,5-T with the exception of Tordon 101 which contains 40% 2,4-D. This chemical is being phased out as stock depletes.

The use of herbicides is the only effective control of these weeds. Mechanical control would only be effective if roadsides were treated the same as for backyard lawns; graded level and mowed once to twice weekly.

.....2

Mr. R. G. Harvey

November 29, 1976.

To do this would be economically and physically impossible considering the vast areas that must be covered. Most of the R/W areas are also impossible to mow with our present machinery because of steep slopes and extraneous material on the surface (e.g.: boulders, logs, etc.). It is in these inaccessible areas where the weed problem is greatest.

Weeds are placed in the noxious category because of their seeding habits. These weeds tend to produce seeds throughout the growing season and when moved often produce seed below the cutting height of mowers.

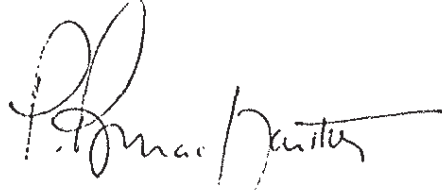
General Comments:

Prior to any spray application, approval is requested from the Ministry of Agriculture and the Interdepartmental Pesticide Committee. All regulations set by these agencies are strictly adhered to. All chemicals used by Ministry of Highways have been tested and approved by Agriculture Canada, Plants Products Division.

In discussion with the Ministry of Agriculture it was mentioned that cutting only of noxious weeds would not be effective. It was also mentioned that B. C. Hydro attempted a form of mechanical control of their R/W and costs were 10 times above those for chemical control.

Complaints against our spraying program have been minimal with Ministry of Highways being indirectly involved because of misuse by other agencies; notably C.P.R. in the Nelson area.

Recognizing that the Ministry is planning to expand mechanical brush cutting techniques and mowing of rights-of-way throughout the Province by (a) providing more equipment (mowers and brush cutters) where it is needed, (b) improving and levelling rights-of-way so that more mechanical mowing is possible, and (c) encouraging the use and rental of local farm tractors where they are available, we would hope that the Honourable Minister will permit the continuation of a responsible Herbicide program as outlined and which has been in effect this past year without adverse comment or incident.



P. B. MacCarthy,
Senior Maintenance Engineer.

PRM/bh
Encls.

Mr. P. B. MacCarthy,
Senior Maintenance Engineer,
Ministry of Highways & Public Works.

Senior Landscape Supervisor,
Ministry of Highways & Public Works,
November 10, 76.

Chemical Defoliants

2403

With reference to your memorandum of November 2, 1976. I agree it is very unfortunate that other agencies are blatantly ignoring the regulations by which they were permitted to spray herbicides. This does severe damage to Department of Highways operations and others who are taking the utmost care to follow all Federal and Provincial laws.

To say that Department of Highways is not spraying defoliants is only partially true. The chemicals we use (Tordon Products) could be classed as defoliants if used indiscriminately on brush and trees. This is not the case with our spray program. Department of Highways undertakes spot spraying only of extreme infestation of noxious weeds as required by law and sterilization of a 4 to 6 foot wide gravel highway shoulder.

The herbicides 2,4-D and 2,4,5-T are the chemicals most sensitive to public criticism at present largely because of their dioxin content. "Tordon 101" is the only remaining herbicide we have in stock containing 2,4-D and does not have any dioxin content whatsoever (approximately 40% 2,4-D containing less than 0.1 ppm of dioxin, if at all). We are seriously considering deleting "Tordon 101" (see attached memo) from our spray program as we have a suitable alternative in "Tordon 22K" and "Tordon 10K". We could then safely say that Department of Highways uses no products containing 2,4-D or similar chemical.

As suggested, our herbicide policy and spray program is presently being reviewed and will be on a continuing basis.

I would suggest that mechanical control methods be increased and upgraded in recreational and populated areas where we would be under public scrutiny. Mechanical control would be much simpler and economical in the areas mentioned above if our right-of-way slopes were graded to allow operation of motorized equipment.



P. M. Erickson,
Senior Landscape Supervisor.

PME/bh
Encl.

24/03

MEMORANDUM

TO Mr. Paul M. Erickson,
Senior Landscape Supervisor,
Ministry of Highways & Public Works.

FROM Senior Maintenance Engineer,
Ministry of Highways & Public Works,
October 29, 1976.

SUBJECT Use of chemical defoliants.

OUR FILE 2403/330090

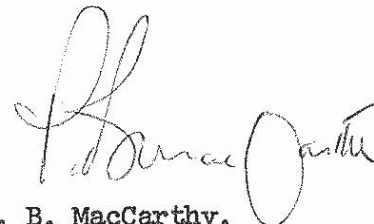
YOUR FILE

With regard to the attached correspondence from Assistant Regional Highway Engineer, Nelson, any review of our present policy on the use of chemicals in that Region should have application to all other Regions in the Province.

I would think that the Region has been very cautious about their applications of 2-4-D or Tordon for weed control and I would presume that any review of the use of chemicals in the Region would concern itself only with identifying areas in the Region where public opinion is very sensitive to the use of herbicides.

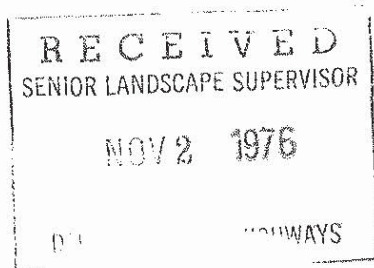
The Department is not spraying defoliants in its herbicide programme and much of the public objection and controversy with respect to the spraying of herbicides pertains to the use of the defoliant 2-4-5-T. It is unfortunate that this chemical is still being used by B. C. Hydro and C. P. R. for brush control purposes because our Department gets identified with these agents as another user of defoliants when, in actual fact, this is not truly the case.

Comments please.



P. B. MacCarthy,
Senior Maintenance Engineer.

PBM/bh
Encl.



2403

PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF HIGHWAYS

TO: Mr. P. B. MacCarthy Senior Maintenance Engineer VICTORIA ATTENTION:	RECEIVED DEPT. OF HIGHWAYS VICTORIA, B.C. OCT 28 1976 ANSWERED..... NOTED..... DATE.....	SENDER'S ADDRESS: 310 Ward St., Nelson DATE: October 26, 1976 DISTRICT: R#3 New Denver HEADQUARTERS FILE: REGIONAL FILE: R3-80-49 DISTRICT FILE: 34-80-49 and 34-21-14
SUBJECT: Use of Chemical Defoliant	REFERENCE: DATED:	

Attached are copies of letters from the Slocan Lake Chapter, Kootenay Pollution Control Association, concerning the use of defoliant. The weed spray operations carried out by the C.P.R. in the Slocan Valley were recently the subject of an investigation and considerable adverse publicity in the local newspapers.

While the letters are addressed to the C.P.R. the content is also directed at any other agencies, including our Department, who might employ defoliant, particularly 2-4-D or 2-4-5T.

In view of the considerable opposition we can expect to the future use of chemicals, particularly in the Slocan Valley area, it is suggested that our present policy on the use of chemicals be reviewed before next year's operations.

W. M. Sproul
 Regional Highway Engineer

by

H. J. Kelsall
 Asst. Regional Highway Engineer

HJK/GW
 Attach.

330090

October 4, 76

Dan Doyle
District Manager
Highways Dept.
New Denver, B. C.

Dear Mr. Doyle:

I'd greatly appreciate your sending on the copy of my letter to CPR to the appropriate parties in Victoria when you have had a chance to review its text. Doubtless you have had a chance to read the latest article on the matter in the Nelson Daily News, Sept 29, 76, in which the Highway Department entered the issue.

Very truly yours,

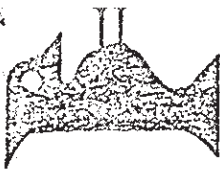
Wayne McCrory
Wayne McCrory,
Biologist

WMC/mc

DEPT. OF HIGHWAYS

OCT 6 1976

NEW DENVER, B. C.



SLOCAN LAKE CHAPTER
KOOTENAY POLLUTION CONTROL ASSOCIATION

BOX 146 — NEW DENVER, B.C.

30 September, 1976

Mr. L. Burbidge
President
Canadian Pacific Railway

Re: CPR Usage of Chemical Defoliants along Railway Right of Way;
Facts of Controversy, Protest and Sequential Events; Newspaper Articles;
Proposed Public Forum Review & Legal Proceedings

Dear Mr. Burbidge:

One month has passed since my initial letter of protest to you and I have not had the courtesy of a reply, or any indication as to what steps CPR would take to remedy its flagrant misuse of a herbicide repeatedly denounced by the scientific community as dangerous to humans and livestock. The only response indirectly received was an inaccurate and incompetent reply by Mr. H. L. MacAulay, Superintendent of CPR to the Nelson Daily News regarding an article published in their newspaper about our protest taking exception to the facts in the newspaper version by denying that CPR was using the controversial 2,5,4,T herbicide, stating that CPR was using 2,4,D (Tordon 101), and overlooking entirely that both our letter and the newspaper article had cited 2,4,D as under the same indictment as a "significant hazard" for use around homes, recreational areas, water and food crops, to use the language of the Food & Drug Directorate, quoted in my earlier letter to you.

Since the newspaper article witnesses have stepped forward proposing testimony in anticipated legal proceedings concerning the wanton disregard of health and property by CPR employees using these toxic sprays which they eye-witnessed or which occurred on their property. You may have had the opportunity to hear and see the television program FIFTH ESTATE on Sept. 28, (cc) from Toronto concerning this unconscionable use of 2,4,D in which the staff investigators and those interviewed summarized their findings that dioxin based chemicals were the most dangerous chemicals in the world next to certain botulisms, for 30 gallons of a dioxin based herbicide like 2,4,D could wipe out the world's population; stating also that one part Dioxin to a billion parts of water would kill a guinea pig; that small amounts of this chemical mixed and diluted killed animals in three months by blocking cell-division in their bodies. The inquiry also interviewed a physician in the United States who claimed that medical biopsies performed on 2 persons (who were his patients) who died of cancers found significant amounts of dioxin in the cancerous tissues. And the program also presented a representative of the Department of Agriculture who mechanically repeated that "sufficient proof" of danger to humans had not been demonstrated, bringing to mind the sentiments of a noted scientist who complained to the US inquiry board in the original controversy over 2,5,4,T and 2,4,D, that the less we know about a potentially dangerous chemical seems to mean the more we can use, if the conduct of the licencing department is read correctly.

Your attention is also called to the protest made to Premiere Bennett by the South Okanagan Union Board of Health against the proposed use of 2,4,D to kill Eurasian milfoil in Okanagan Lakes, and the similar protests which I won't take the time to detail here, springing up in this country and the U.S.



SLOCAN LAKE CHAPTER
KOOTENAY POLLUTION CONTROL ASSOCIATION
BOX 146 — NEW DENVER, B.C.

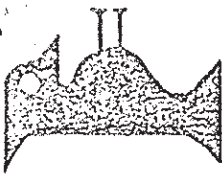
-2-

These protests are the first indication of a newly aroused public; a public which intends to call corporations such as you direct into a strict public accounting for an oppressive, dangerous, and speciously based program carried out against the public welfare on urgent matters of public health around which legitimate medical controversy exists. On the premise of saving a few hours of manpower you would not only continue wontonly spraying these denounced herbicides onto public waterways, private gardens, and animal browse, but called to account your conduct so far seems to consist of misresponse (as in MacAulay's meaningless denial) or no response, such as greeted my first letter. You may yet see such lack of public-spiritedness and unresponsiveness to grave issues as indicative of an abusive attitude which encourages further damage by your spraying agents, leading to calls for treble punitive and exemplary damages.

I do not think, Mr. Burbidge, that stone-walling it (to use a term expressive of corporate postures) represents the best reaction to this problem by CPR, nor do I believe it represents management at its highest levels, which is why I have addressed you. Permitting sub-management to deal with this many-sided subject with a mechanical and defensive posture exhibits self-concerns at the meanest levels while claiming great "awareness of (CPR's) responsibility to public health. Show me, Mr. Burbidge, one recent letter, or reaction, consonant with that claim. Indeed, show the people of this area even the first step in a company inquiry into the wanton disregard of private property and public health exhibited by your spraying crew, who mindlessly, and as liable agents for CPR, sprayed dioxin-based 2,4,D into the air, onto small brooks which entered private property, and near houses, gardens and livestock, in direct controvention of the warning issued by the Food & Drug Directorate.

I had hoped to avoid large public-forum airing of these issues, as well as the legal proceedings CPR seems bent on provoking. You have not met a concerned portion of the public with a concerned attitude, have not sought an amicable resolution of the issues, or sought an accord with those aggrieved by meeting their complaints with even an iota of interest. These are regrettable confessions which CPR makes, to controvert its own claims of public-spiritedness, and one condemnatory to claims of operating in good-faith.

This Association solicits an immediate change in policy, and a reversal of the attitudes spelled out in this letter, so that we may investigate the real basis of concern in a co-operative rather than an adversarial way. My last letter closed with such a request for cooperation in the form of advice as to what, if any, steps were taken in the issues cited. Thus far it is apparant no steps have been taken, for which the public health, against their interests on every level, must suffer. CPR points at the Pesticide Committee's approval of dioxin-based herbicides with the same disregard of personal conscience as nazi-leaders pointed at Hitler's approval and orders; but the humanitarian standards for the intervention of personal conscience and principles outrun the escape clauses of pointing to approval from elsewhere. The law then and now insists, I believe, that when it comes to hazard's to human life, what the perpetrator knew or should have known was the pivot upon which personal culpability focused. You are not to pretend blindness to the substantial claims for danger in these sprayings by a responsible segment of the scientific community under a blanket-immunity bestowed by a board




SLOCAN LAKE CHAPTER
KOOTENAY POLLUTION CONTROL ASSOCIATION
BOX 146 — NEW DENVER, B.C.

- 3 -

equally culpable. What you and the board seem to demand is that enough birth defects occur, enough malformations and death in humans and animals, so as to present an overpowering, inarguable indictment of these chemicals, but how many is enough? Are the inarguable statistics of birth deformities in humans in Viet-Nam where large amounts of these defoliants were used persuasive? Or are they too remote to argue against the speciously based profit concerns which underwrite your sanction of the use of these chemicals? When ENOUGH birth defects and deaths occur as to prove beyond all speculation otherwise that dioxin-based defoliants are the immense dangers many scientists urge they are, CPR will be on its way to bankruptcy in damage suits and payments. And I assure you that the road to damage suits is made up of just the kind of conduct before and after the fact of the spraying as has been exhibited by CPR. (Consider the incredible spraying between Kootenay Lake & Creston, too)

These are the aspects which want a responsive and learned approach, Mr. Burbidge, from the highest levels of CPR management. We trust that if you will enter the matter personally we may yet find an amicable resolution which will obviate the necessity for the spectacle of dreary proceedings and public denunciations of a national asset such as the CPR.


Wayne McCrory, Biologist
Director, K.P.C.A., Slocan Chapter

c.c. Nelson Daily News, Nelson
Dr. Bruce Fraser, Head of Biology, Selkirk College
Fish & Wildlife
Kootenay Naturalists
R.D.C.K.
S.P.E.C.
Pollution Control
CPR, Nelson
CPR, Regional, Vancouver

WMC/rmc

Mr. Gary Shillingford,
Purchasing Commission,
Buildings.

Landscape Assistant,
Department of Highways.

March 24

76

Herbicides

2403

Please find enclosed a table listing all unwanted herbicides in the various Highway Districts.

It is very difficult to obtain some of the information you requested, such as date of manufacture and brand name, because many of the herbicide barrels have lost their original labeling, and other than an identifying paint mark as to contents there are no further markings.

Positive manufacturer tracing was not possible in all cases (by checking Purchase Orders) because some of the 1972 stock (supplied by Shell) and some of the 1973 batch (supplied by VanWaters and Rogers) have been stored together, intermixed, in some areas. The particulars shown on the table are as accurate as possible under the circumstances.

We are very anxious to get rid of this herbicide stock as there are no plans to use it in the future. If B. C. Hydro is willing to take it off our hands at half the original cost, so much the better, but we would be more than happy to give it to them for the hauling, as disposal of the chemical (neutralizing) is costly for us. Furthermore, by paying for the herbicide, B. C. Hydro may require some guarantee that the material is still good, and this we cannot do without having extensive test sampling done. Although age of the product alone likely has little bearing on its effectiveness, other factors involved may, such as rusting containers, freezing conditions, etc.

All (2,4-D and 2,4,5-T) MIX in stock with the exception of the 135 gal. of "Esteron" in Kamloops is of the following description:

2,4-D plus 2,4,5-T low volatile 150-octyl ester,
32 oz. A.I. + 32 oz. A.I./gal.

The "Esteron" mix description is as follows:

2,4-D plus 2,4,5-T low volatile 150-octyl ester,
48 oz. A.I. + 48 oz. A.I./gal.

All 2,4,5-T stock is of the following description:

2,4,5-T low volatile 150-octyl ester,
64 oz. A.I./gal.

... 2

Mr. Gary Shillingford

- 2 -

March 24, 1976.

The straight 2,4,5-T herbicide was purchased for \$7.93/gal.
and the (2,4-D/2,4,5-T) mix was purchased for \$5.90/gal.

I hope this will be sufficient information for dealing with
Hydro. Please let me know how things work out.



A. D. Planiden,
Landscape Assistant.



ADP/jc

V8V 2M3

May 30, 1975.

Purchasing Commission,
Department of Finance,
Buildings.

Attn: Mr. Vardy

Dear Sir:

Re: Disposal of Surplus Herbicides.

We have had a phone call from Mr. Rickdale of the Purchasing Commission requesting information regarding the price to be charged B. C. Hydro and Power Authority for the surplus herbicides presently being held by this Department.

This has been discussed with our Comptroller of Expenditure who has suggested that the material be offered at half price, or a round figure approximating half price.

The last prices this Department paid were as follows:

Iso-octyl ester of 2,4-D	@ \$ 3.46 per gallon
" " " " 2,4,5-T	@ \$ 7.07 per gallon
" " " " 50% 2,4-D + 50% 2,4,5-T	@ \$ 5.43 per gallon

When communicating with B. C. Hydro and Power Authority may we ask that you contact

Mr. R. Drinkwater,
Purchasing,
B. C. Hydro and Power Authority,
10th Floor,
970 Burrard Street,
Vancouver, B. C.
V6Z 1Y3

Yours very truly,



Michael Pope,
Senior Landscape Supervisor.



MP/jc

Purchasing Commission,
Department of Finance,
Buildings.

Senior Landscape Supervisor,
Department of Highways.

Attn: Mr. Vardy

May 8

75

Disposal of Herbicides.

2403

You will recall that this Department recently requested your advice on the disposal of surplus herbicides and that the B. C. Hydro and Power Authority were interested in taking over all the 2,4-D and 2,4,5-T presently being stored at various locations throughout the Province by the Department of Highways.

The request of the Purchasing Commission was that approval of the transfer be made by a resolution from the B. C. Interdepartmental Pesticide Committee and also that the use of the material be also approved by the Committee.

A meeting of the Committee was held on April 14th at which time this resolution was passed.

A copy of the minutes, received today, is enclosed and we would draw your attention to the last item on page 3. If this action is satisfactory to you we would ask that you proceed with the arrangements regarding disposal.



Michael Pope,
Senior Landscape Supervisor.



MP/jc

V8V 2M3

April 2, 1975.

Chairman,
Purchasing Commission,
Department of Finance,
Buildings.

Dear Sir:

Re: Disposition of Herbicides.

In June of 1973 the Minister of Highways placed a ban on the use of herbicides within the highway rights-of-way. At that time the Department had a considerable amount of herbicides in stock and this has been retained in the event that the ban might be lifted. However, the containers in which the material is stored are beginning to deteriorate to the point where certain environmental damage might occur.

Upon making enquiries as to what might be done we are advised that the B. C. Hydro and Power Authority are willing to take all of the 2,4-D, the 2,4,5-T and the 2,4-D/2,4,5-T mixture.

Following are the quantities presently stored throughout the Province. All are 64 oz. iso-octyl esters.

	<u>Region 1</u> <u>(Vancouver)</u>	<u>Region 2</u> <u>(Kamloops)</u>	<u>Region 3</u> <u>(Nelson)</u>	<u>Region 4</u> <u>(Prince George)</u>
2,4-D	450 gal.	540 gal.	1125 gal.	110 gal.
2,4,5-T	555 "	270 "	1547 "	7 "
2,4-D/2,4,5-T	--	1372 "	540 "	2305 "

Would you please advise as to what arrangement can be made to dispose of this material.

Mr. Robin Gardner, Environmental Advisor, B.C. Hydro and Power Authority, 970 Burrard Street, Vancouver, has been in touch with this office in this regard.

Yours very truly,


Michael Pope,
Senior Landscape Supervisor.

 MP/jc

2403/329797

April 21, 1978.

S22

Dear S22 :

Thank you for your letter of April 6, 1978, regarding the spraying of herbicides 2,4-D and 2,4,5-T in your area.

The Ministry of Highways and Public Works has not applied 2,4,5-T in the past few years, and we have no plans to do so in the future; also, as of 1977, the 2,4-D has been discontinued entirely.

I am pleased to inform you of the new Pesticide Control Act passed into law on March 9th of this year, and have attached a copy of the Act for your information. As you will notice, this Act grants you the right to appeal to the Pesticide Control Appeal Board, our right to spray under a permit issued by the Administrator, Pesticide Control Branch, Ministry of Environment.

Please be assured that you will be advised through your local newspaper, or directly, of any intended herbicide application in your area by my Ministry.

Yours truly,

7

Alex V. Fraser,
Minister.

Encl.

Prepared by Hwys. Operations Div.

cc: D.M.

A.D.M., Operations

Sr. Landscape Supervisor.

PME/ep

deu
Mailed
Apr. 28/78
D.A.

REGIONAL LANDSCAPE SUPERVISORS:

Victoria,

February 2, 1978

BURNABY
KAMLOOPS

NELSON
PRINCE GEORGE

2403

Contract Herbicide Application.

Please ensure that no 2,4-D, 2,4,5-T products or products containing these chemicals are used by private contractors or any other agency contracted to spray on highway right-of-way.

As you know, these chemicals have been banned from use within the Ministry.



Paul M. Erickson,
Senior Landscape Supervisor.

PME/bh

V8V 2M3

July 8, 1977.

S22

Dear S22 :

With reference to your letter of June 25, 1977, regarding weed spray in your area.

I assume that the chemical you are concerned with is 2,4-D or solutions containing 2,4-D. I wish to relate the use of this and other chemicals by the Ministry of Highways.

2,4,5-T, as opposed to 2,4-D, is a chemical long since prohibited for use by our Ministry because of well justified public objection and through tests that revealed the presence of a highly poisonous substance called dioxin. 2,4-D does not contain any dioxin, however it has now been prohibited because of the public's close association by name of this material to 2,4,5-T.

The Tordon 101 that was sprayed in your area contained 25% 2,4-D. This product, at the time of spraying, was in the process of being discontinued after the small amount remaining in stock was depleted. Tordon 101 is now totally banned for Highway use as of June 16, 1977.

All spraying of noxious weeds has been temporarily stopped within your locality until new legislation, presently under review, is passed by Government regarding the "Weed Control Act". I am not aware of the details, but believe the new Act may allow for appeal by local residents. Once this new "Weed Control Act" becomes law, your area will be notified of its contents and of our intent to spray. If dictated by the new regulations, spraying will then resume and continue without further notification. I can assure you that any future spraying will be done under the strict guidance of the Ministry of Environment, Ministry of Agriculture and the Interministerial Pesticide Committee.

With regard to the use of local residents for mechanical control, the use of herbicides is the only effective control of noxious weeds. Mechanical control would only be effective if our roadsides were

.....2

REGIONAL LANDSCAPE SUPERVISORS:

Victoria

BURNABY
KAMLOOPS

NELSON
PRINCE GEORGE

July 6, 1977

2403

Herbicide Disposal.

Word has just been received that Chem-Nuclear of Portland, Oregon, will take all unwanted herbicides with the exception of any chemical containing 2,4,5-T. This will be shipped later pending the approval of the State of Oregon which is expected within one to two months.

Please deliver all herbicides, except those with 2,4,5-T, which you do not intend to use to Western Weed Control Ltd. Warehouse, 5880 - 200A Street, Langley, B. C.

All 2,4-D and Tordon 101 and 212 must be included for disposal.

If it is not already clear on the container as to its contents, please place a sticker or tag on each container stating brand or chemical name.

Containers should be in suitable condition for shipment and delivered as soon as possible.



Paul M. Erickson,
Sr. Landscape Supervisor.

PME/bh



Environment and Land Use Committee
secretariat

Parliament Buildings, Victoria, British Columbia V8V 1X4
RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B.C.

FEB 10 1977

77-02-09

Highways file # 2403.

ANSWERED.....
NOTED.....
DATE.....

MEMORANDUM TO :

All Members
Environment and Land Use
Technical Committee

RE : ROADSIDE VEGETATION CONTROL PROGRAM
MINISTRY OF HIGHWAYS AND PUBLIC WORKS

I attach for your information a proposed Roadside Vegetation Control Program developed by the Ministry of Highways and Public Works, under date of January 20, 1977. It is circulated to you for consideration and comment at the February 25 ELUTC meeting.

As agreed with Mr Harvey, Mr B Vance, Head, Pesticides Control Branch, Ministry of Agriculture, who also chairs the Inter-Departmental Committee on Pesticides, will be asked for his comments.

Mr Harvey has indicated that this policy document was prepared as a result of earlier problems related to the Noxious Weed Act; in particular, the problem of knapweed control. Emphasis in the document has been placed on the cutting of brush and the discontinued use of 2, 4-D or 2, 4, 5-T.

Denis K. O'Gorman
Acting Director

DKO'G/ga

//c.Attach.

336181

SME

DRAFT ONLY.

February 9, 1977

ASSISTANT REGIONAL HIGHWAY ENGINEERS:

File: 479.

BURNABY
KAMLOOPS
NELSON
PRINCE GEORGE

Subject: Roadside Vegetation Control Program

I have enclosed a copy of a report outlining our present vegetation control program. This program is presently under review by the Environment and Land Use Committee for their recommendation.

Until such time as this recommendation is received, the program as outlined should be considered as our vegetation control policy.

Although Simmaprim 80W is the only sterilant mentioned in the report, the policy would include the related chemicals Primatol "A" and Eramox, all supplied by Ciba-Geigy; Hyvar "X" and Hyvar "XL" supplied by Dupont will also be permitted on an interim basis in order to keep the market competitive. These chemicals contain no 2,4-D or 2,4,5-T and the toxicity ratings equal that of Simmaprim..

Paul M. Erickson,
Senior Landscape Supervisor.

PME/bh
Encl. *SENIOR MOUNT. ENG.*
c.c.: Regional Landscape Supervisors.

File: 2403

March 13, 1977

Mr. Bob Briscoe, M. P.
Kootenay West
House of Commons
Ottawa, Ontario

Dear Sir:

I note you have written to our District Highways Manager in Nelson, B. C. regarding chemical sprays being used along highway rights-of-way in Kootenay West, in order to contain weed and other growth.

In view of the controversy accompanying this operation this Ministry has submitted to the Provincial Cabinet Committee on Environment and Land Use, a policy clarification request on our Roadside Vegetation Control Program. This is in process of consideration at this time and a policy statement will be made in due course.

Some comments on our present practices may be relevant.

Firstly you mention the control of weed and other growth. Referring first to the control of weeds, these in B. C. are described as noxious weeds or otherwise. Noxious weeds are those which because of their seeding habits tend to produce seeds throughout the growing season and when moved often produce seed below the cutting height of mowers and a notorious weed of this type is diffuse knapweed in British Columbia which will quickly spread and cause many problems to agriculture. Other such weeds are tansy regroot and thistles. Cutting alone is not a good control practise for such and probably will enhance their spread. Chemical sterilant for the road shoulders is the best retardant for that application and the chemical Simmaprim is used and this does not contain either 2,4-D or 2,4,5-T, which are the most controversial chemicals, the latter much more toxic.

For noxious weeds on the right-of-way the chemical herbicide known as TORDON 10K and 22K do not contain 2,4-D or 2,4,5-T and have been used and will probably continue to be used to benefit agriculture. TORDON 101, another herbicide previously used, did contain 40% 2,4-D and will not continue to be used.

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Mr. Bob Briscoe, M. P., Ottawa - March 15, 1977 - Page 2.

The chemical 2,4,5-T was used as a foliant herbicide a number of years ago but has not been used by this Ministry for a number of years and will not be used. Brush and tree growth, for which it was used, will be and are being controlled by this Ministry by brush cutting.

For your information this Ministry has been commended for its progressive and closely controlled brush and weed measures and policy by provincial agricultural agencies and these also have the approval of Agriculture Canada, Plant Products Division.

Trusting this is of interest to you.

Yours very truly,

A

Alex V. Fraser
Minister of Highways
and Public Works

RGH:w1

Handwritten signature



THE HONOURABLE ALEX V. FRASER
MINISTER OF HIGHWAYS AND PUBLIC WORKS

For Release: June 13, 1978

The Ministry of Highways and Public Works controls brush growth along provincial highways by machine and by hand, and applies chemicals only sparingly in spot areas where machine and hand clearing cannot be done, according to Highways Minister Alex V. Fraser.

"There has been a tremendous amount of printed and spoken misinformation regarding the Ministry's weed and brush control program, and I want it clearly understood that our program follows all the requirements of the law and, in the public interest, is done in a safe and prudent manner. I want the record set straight," said Mr. Fraser.

Many full-time and some part-time employees are engaged in cutting brush in various areas of the province, and 1978 has been no exception in the work done.

"Our program is divided into two parts - machine and hand control and the herbicide program. Total cost of both is nearly \$3 million of which less than seven percent involves the use of chemicals." said the Minister.

"In the herbicide program we spend about \$200,000 which includes labour, equipment rentals and purchase of chemicals, the chemicals accounting for well under one-half of the total.

"On the other hand we spend \$1.1 million on hand and machine clearing of brush and grass. We spend \$300,000 for hand weeding of cultivated areas alone," added the Minister.

"It's a big program and I want to emphasize that we only resort to chemical application in areas where hand work and machine work cannot be used to do the job. In addition, we only spray in spot areas and not indiscriminately even in those places.

The actual herbicide program is divided into two areas of application, the first being to control weeds along highway right-of-way and at gravel pits as required by the Weed Control Act as designated by the Ministry of Agriculture.

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Second part of the program is the spot application of herbicides to gravel shoulders, around signposts and under guard rails to prevent all plant growth. This application is for safety reasons, but as a sidelight, improves the appearance of the highway.

"Application of herbicides is done by crews under a trained supervisor who holds a Pesticide Applicator Certificate issued by the Ministry of Environment," said Mr. Fraser.

Strict conditions and special instructions regarding spraying are enforced by the British Columbia Pesticide Control Branch of the Ministry of Environment which administers pesticide sale and use legislation.

Pesticide dealers and applicators are licenced, and employees of public and private agencies are trained and certified through examination, to sell or apply pesticides.

Within this establishment is the British Columbia Interministerial Pesticide Control Committee comprised of representatives from several ministries, including Health, Forests, Fish and Wildlife, Environment, which is headed by a chairman.

The committee reviews, authorizes, and monitors all large scale pesticide application by public and private agencies.

In addition, an appeal board appointed by the Minister of Environment exists to hear and rule on appeals on pesticide application, among other matters, in the case of pesticide applications. Both sides in an issue, have the right to appeal.

Herbicides used by the Ministry of Highways in its small but necessary spraying program do not contain 2,4-D or 245-T or any other similar chemical which contains phenoxy or which is considered a phenoxy herbicide.

While the Weed Control Act does not specify the use of herbicides in carrying out the requirements of the act, the Ministry of Agriculture advises that effective control of weeds can only be accomplished through the use of herbicides.

Weeds growing on the road shoulders, ditches and slopes adversely affect the roadbed and drainage and reduce sight distances.

Noxious weeds along roadsides spread to farmers' fields affecting available cultivated land and reducing agricultural production.

...../3

Used as it is by the Ministry of Highways, herbicides cause minimum discolouration after spot spraying.

"I want to emphasize that the Ministry, as well as municipalities and other organizations and individuals, have the appeal procedure available to them," said Mr. Fraser.

In other areas, highway beautification is accomplished by mowing and trimming under contract. Grass, trees and shrubs are used and cultivation is done by landscaping contractors. This portion of the program is an important part of the \$3 million program.

"I trust that this explanation of the Ministry program will set the record straight. All we want are attractive highways, safe highways, useful highways and programs such as this one which we feel are in the best interests of all citizens of British Columbia. We welcome constructive criticism and we do not wish to antagonize anyone. However, we also wish all citizens to know the facts about our programs - the correct facts," said the Minister.

- 30 -

For further information contact: D.W. Shepherd, 387-3198/3182
Public Information Officer