

A wide-angle photograph of a large agricultural field. The field is filled with tall, green waterhemp plants. In the center of the field, there is a distinct, narrower strip of shorter, more densely packed green plants, likely representing a control or treatment area. The background shows a flat horizon with some distant trees and utility poles under a clear sky.

# Waterhemp Control 2018

# Regulatory approval for supplemental label on December 7, 2017

- POST rate up to 128 fl oz/A
  - Willowood Ethofumesate 4SC + glyphosate
  - Greater than 2-lf sugarbeet
  - Single or multiple applications
  - 10 day intervals between POST applications
  - 45 day Pre Harvest Interval (PHI)



## Willowood Ethofumesate 4SC Suspension Concentrate

**BROAD SPECTRUM HERBICIDE** for selective control of weeds in sugar beets, garden beets, onions, garlic, shallots (in all states) and carrots in Washington and Oregon only.  
**GRASS SEED HERBICIDE** for selective control of weeds in certain grass seed crops and commercial sod production in California, Idaho, Nevada, Oregon and Washington.  
**TURF HERBICIDE** for selective control of weeds, on Ornamental Turf

ETHOFUMESATE GROUP 8 HERBICIDE

ACTIVE INGREDIENT:	% by Weight
Ethofumesate (2-ethoxy-2, 3-dihydro-3, 3-dimethyl-5-benzofuranyl methanesulfonate)	42.0%
OTHER INGREDIENTS:	58.0%
TOTAL:	100.0%

This product contains 4.0 lbs. active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled:	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
If in eyes:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time or your poison control center at 1-800-222-1222.	

EPA Reg. No. 87290-1  
 Manufactured for:  
 Willowood, LLC  
 1800 NW Garden Valley Blvd. #120  
 Roseburg, OR 97471

EPA Est. No.



Net Contents:

# Three questions about ethofumesate applied postemergence in sugarbeet

1. Are these high rates ethofumesate safe to sugarbeet?
2. Does ethofumesate control weeds when applied post-emerge?
3. Does ethofumesate carryover to rotational crops after sugarbeet?
  - Corn
  - Soybean
  - Wheat

# Are high rates ethofumesate applied post-emerge safe to sugarbeet?



Trial Location	Ethofumesate (fl oz/A)	Yield (Ton/A)	Sugar (%)	RSA (lbs/A)
Crookston	0	27.7	18.5	9,772
Crookston	128	28	18.5	9,786
Foxhome	0	23	14.4	5,619
Foxhome	128	22.5	14.7	5,605
Lake Lillian	0	35.2	16.8	10,092
Lake Lillian	128	35.3	16.7	10,183

*Ethofumesate at 128 fl oz/A averaged across all application timing*

# Lambsquarters control from Ethofumesate over 2- and 6-lf sugarbeet



<b>Etho Applied</b>	<b>Grand Forks ND</b>	<b>Minto ND</b>	<b>Oslo MN</b>	<b>Moorhead MN</b>	<b>Prosper ND</b>
(fl oz/A)	-----% visual control-----				
12 / 12	28 c	40 b	35 b	28 b	15 b
24 / 24	43 b	60 a	40 b	35 b	33 a
32 / 32	53 b	55 a	40 b	50 a	35 a
64 / 64	78 a	63 a	58 a	53 a	33 a

<sup>1</sup>Locations receiving 0.75-inch accumulated precipitation, up to 7 DAT; locations receiving 0.75-inch accumulated precipitation up to 14 DAT



**Ethofumesate @ 24 fl oz/A**



**PowerMax @ 28 fl oz/A +  
Prefer 90 NIS and N-Pak AMS**



**Ethofumesate @ 64 fl oz/A**



**PowerMax @ 28 fl oz/A +  
NIS + AMS + Etho @ 24 fl oz/A**



# Pigweed control from Ethofumesate over 2- and 6-lf sugarbeet

Etho Applied	Minto, ND	Oslo, MN	Prosper, ND
(fl oz/A)	-----% visual control-----		
12 / 12	15 c	35 b	28 c
24 / 24	20 bc	28 b	40 bc
32 / 32	25 b	33 b	45 b
64 / 64	40 a	50 a	75 a

Locations receiving 0.75-inch accumulated precipitation, up to 7 DAT; locations receiving 0.75-inch accumulated precipitation up to 14 DAT



Control

Does ethofumesate applied post stunt flowers?





# 2018 Etho Recommendations...

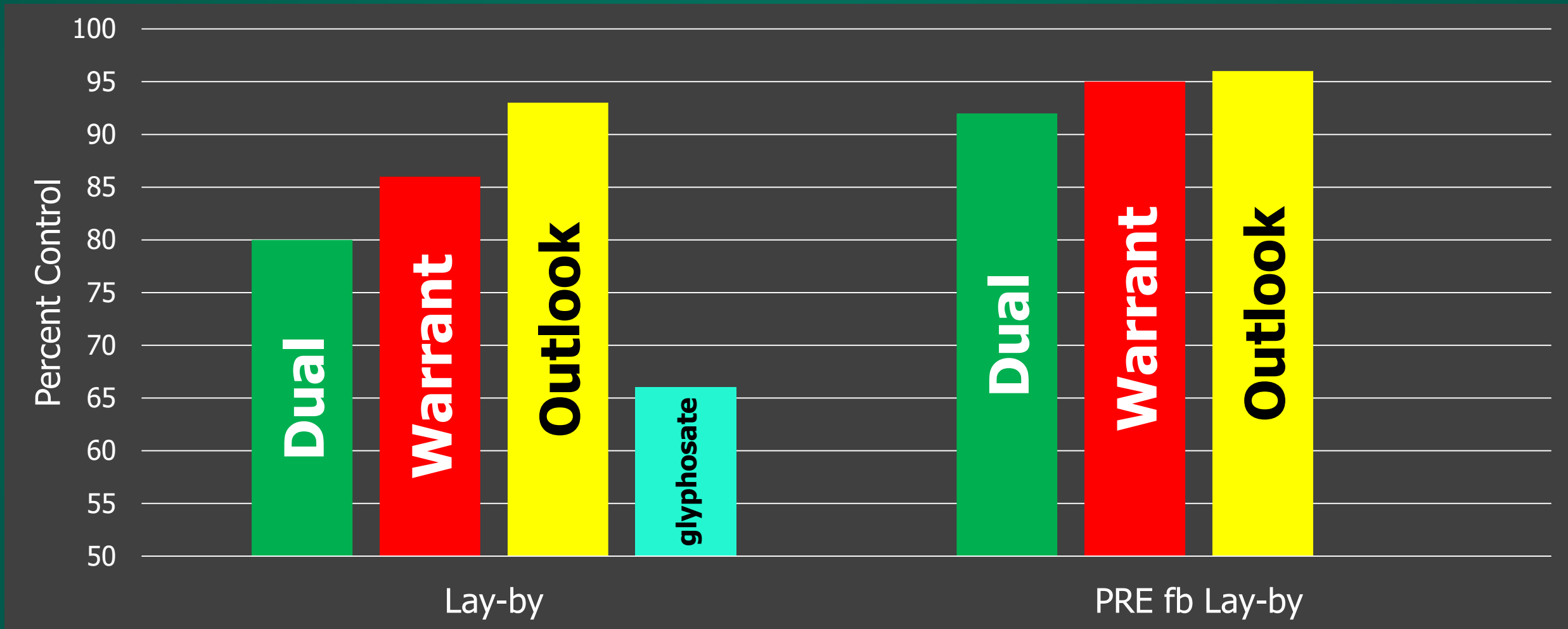
- Ethofumesate PRE and Lay-by
  - Consider using 'other brands' early
  - Etho PRE (2-3 pt)
  - Use a with a chloracetamide for all lay-bys
  
- Ethofumesate POST – It is not a stand-alone product
  - Etho at 12 fl oz/A plus glyphosate
  - Up to 2-3 applications; 10 day interval between application
  - 45 day PHI
  - Think of it like you would an adjuvant

**We need to better understand crop rotation restrictions**

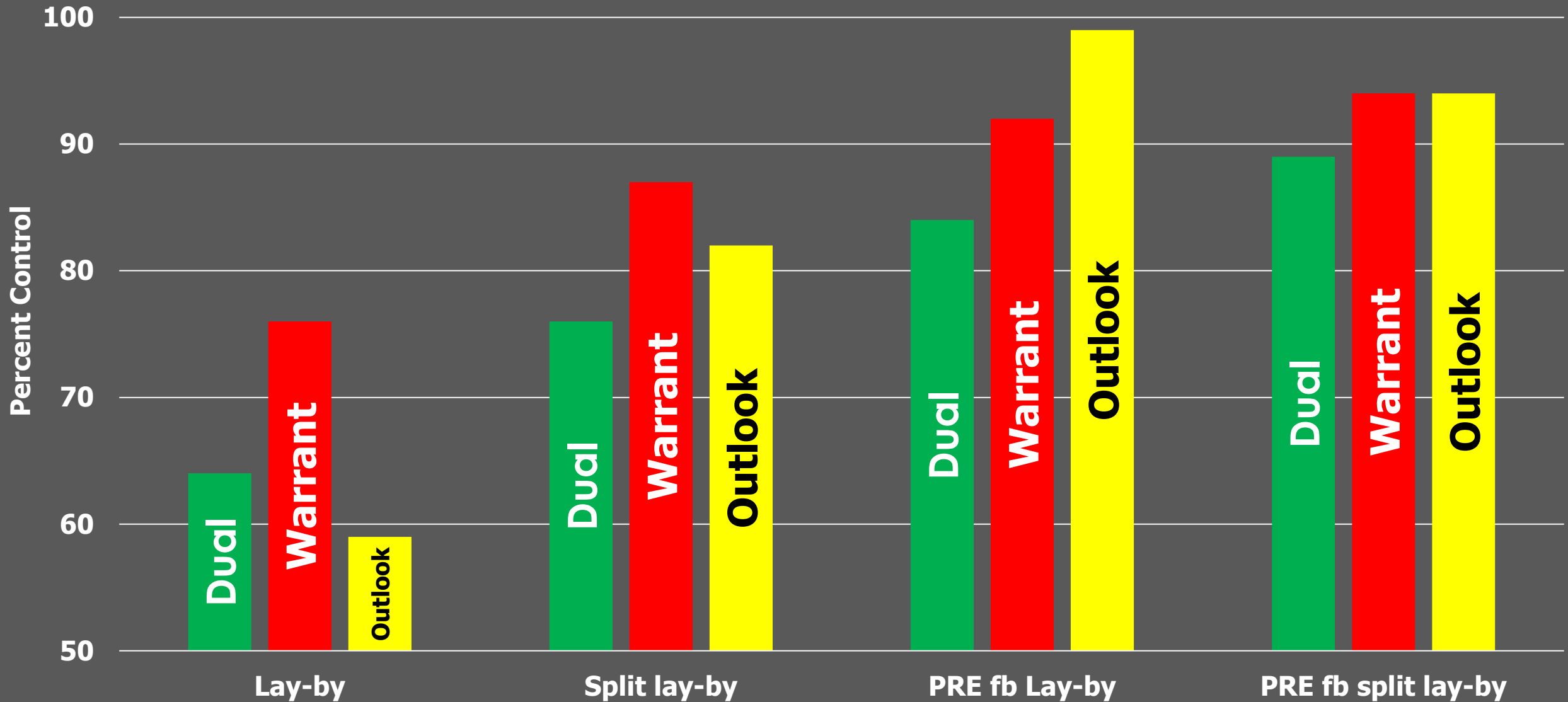


**Pre-Emerge Herbicides at Work  
Start off 2018 With a Clean Slate**

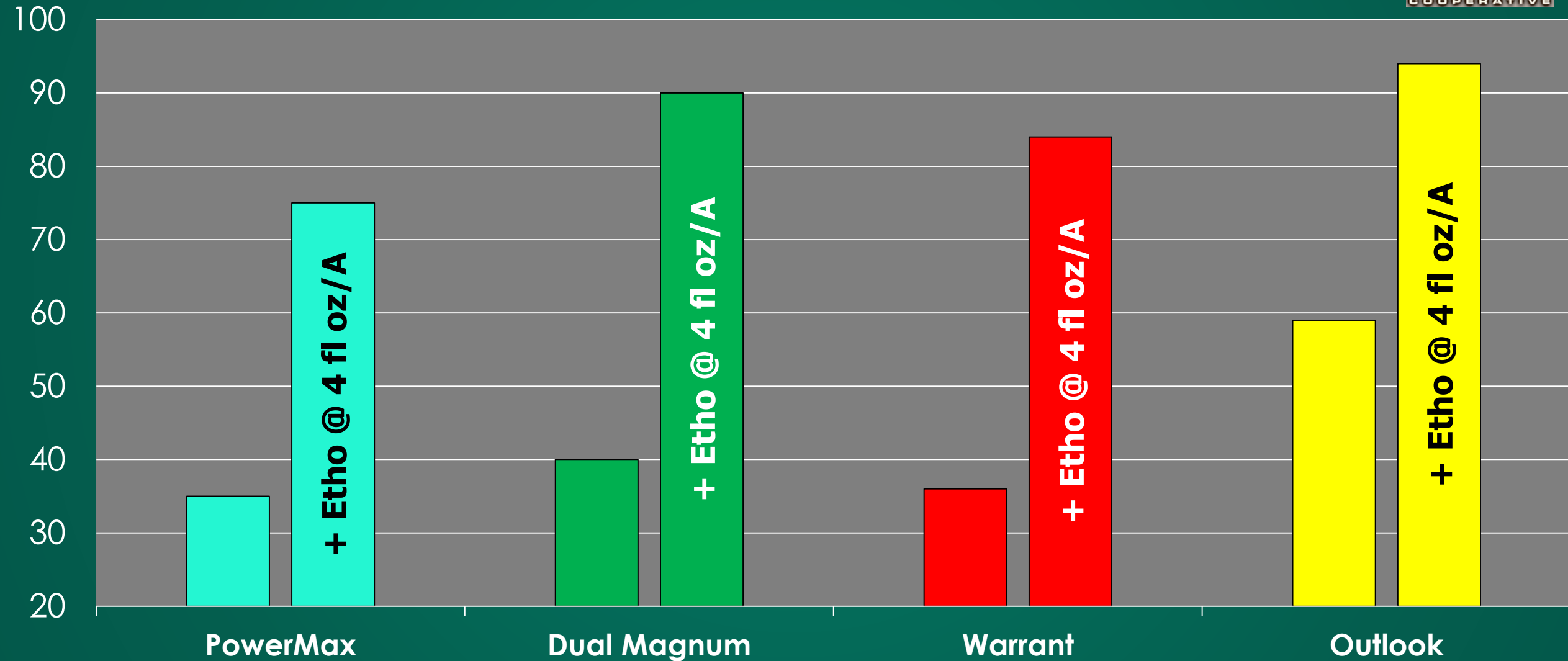
# Lay-by vs. PRE+Lay-By...



# Lay-By vs. Split Lay-By...



# Lay-By Application + Ethofumesate





**PowerMax + Outlook  
(48 days after last treatment)**



**PMax + Ethofumesate + Outlook  
(48 days after last treatment)**

# 2018 Waterhemp Control Recs...



- Data shows that the best control is achieved by applying Dual and/or ethofumesate PRE followed by a split lay-by application of a chloroacetamide herbicide applied at 2-lf sugarbeets *fb* an application at 4 to 6-lf sugarbeets
- Add ethofumesate to all lay-by applications regardless of 'timing'
- There isn't much left for 'rescue' treatments – except the cultivator