

Summary of new information in the 2010 Weed Control Guide:

New address for NDSU Weed Science home page: www.ndsu.edu/weeds - Web version of ND Weed Control Guide.

Weed Guide changes:

- Changed names of all generic trade names to original brand name / generic common name. For example, Thifensulfuron listings are now changed to: Harmony/generic thifensulfuron

Fall or Spring Applied Early Preplant/Preplant Herbicides -

Page 6 (table) and 80 to 81 (text). See page 6 to select herbicides for preplant application prior to seeding most ND crops.

Glyphosate:

Monsanto brands ~\$35 to \$45/gallon (4.5 lb ae/gal formulations).
Generic brands ~\$10 to \$15/gallon (3 lb ae/gal formulations).
Result of price reduction = diminish use of PRE herbicides and increase risk of resistant weed development to glyphosate.

Sharpen (BASF) (saflufenacil) can be used preplant and PRE prior to small grains, corn, soybean, field pea, chick pea, and fallow. PPO mode of action herbicide with wide spectrum broadleaf weed control (no grass), and residual activity with few crop rotation restrictions the following year. Sunflower is the most susceptible crop more than sugarbeet. Sharpen is registered for sunflower desiccation before harvest. Listings on the Crop Rotation Chart does NOT include time that soil is frozen.

Small Grains:

- **PrePare** (Arysta) - Preemergence control of foxtail, wild oat and suppression of brome species.
- **Pulsar** (Syngenta) = florasulam & dicamba. Postemergence.
- **Hat Trick** (Loveland) = a combination of Starane (fluroxypyr) + Stinger (clopyralid) = WideMatch + MCPA.
- **Audit** (Arysta) - a 3:1 ratio of Harmony (thifensulfuron) and Express (tribenuron).
- **Axial TBC** (Syngenta) a combination of pinoxaden & cloquintocet safener = Axial XL & florasulam - a component in Orion. TBC = Tailored Broadleaf Control.
- **Rimfire Max** (Bayer) a different ratio of active ingredients - higher mesosulfuron but same amount of Olympus (propoxy) as Rimfire. Will increase control of Persian darnel.

Corn:

- **Prequel** (Dupont) = Resolve (rimsulfuron) & Balance Pro (isoxaflutole) for PRE weed control.
- **Integrity** (BASF) = Sharpen (saflufenacil) & Outlook (dimethenamid) used PRE in corn will control most grass and broadleaf weeds.

Dry bean: - **Fusilade DX** (Syngenta - registered for use.

Flax:

- **Curtail M**/generics (Dow/others) - ND Section 24c was renewed allowing to use a higher rate (1.75 pt/A than listed on the label.
- **Spartan 4F** = Section 18 and 3 registration pending.

Alfalfa:

- **Chateau** (Valent) - flumioxazin = same ai as Valor. PRE weed control for the establishment of alfalfa.

Weed of the Year - Common lambsquarters - biology and control information added on pages 73, 98 (B2), and 134.

Weed Resistance -

- Green foxtail - populations possibly resistant to ACCase inhibiting herbicides are likely in ND and being tested for documentation.

- Double and Triple Stack Weed Resistance Update:

Horseweed: Glyt (2000), Glyt + ALS (2003)
C. ragweed: Glyt ('06), Glyt + PPO ('06), Glyt + PPO + ALS ('07)
Waterhemp: Glyt (2005), Glyt + PPO + ALS (2006)

Weed Control Ratings -

Deleted field sandbur and wild proso millet and added downy brome, horseweed (marestail) and, waterhemp (pigweed species).

Herbicide Compendium (pages 122-129) - added the equivalent of one page of new generic names and formulations.

Sinochem (China) has offered to purchase Nufarm (\$2.4 B).

Other Update Information:

Emerging New Active ingredients:

			<u>Launch</u>
Aminocyclopyrachlor	DuPont	Pasture/range	2010
Pyroxasulfone	Kumiai	Registration	Oct 2010
		Launch	2011
		Winter wheat, corn, soybean	

Emerging Weed Management Traits:

		<u>Launch</u>
- ALS Resistant Camelina	Great Plains/Agragen	2011
- Clearfield Lentils	BASF	2010-11
- Optimum GAT	DuPont	
	Soybean/Corn	2014/15

Herbicides for ND:

Trigate = Resolve & Express & Callisto
Freestyle = Harmony & Express & Classic (low rate)
Herbicides not for ND: (high rates of Classic)
Instigate (corn), Diligent (soy), Traverse (soy)

- Dow Herbicide Tolerant (DHT)	Dow	2012-13
	Corn/Soybean	2012/13
DHT 1 technology = expresses resistance to 2,4-D, dichlorprop, mecoprop, and "fop" herbicides.		
DHT 2 technology = expresses resistance to 2,4-D, MCPA, fluroxypyr, and triclopyr.		

- Dicamba resistant soybean	Mon/U of NE	2013
-----------------------------	-------------	------

- Glyphosate + HPPD + Ignite resistance	Bayer	2014
Multiple crops		

- SmartStax (8 GM traits)	Mon/Dow	????
---------------------------	---------	------

- ACCase resistant sorghum	Kansas St U.	????
- ALS resistant sorghum	Kansas St U.	????
- Atrazine resistant sunflower?	Kansas St U.	????

Possible Section 18 or Section 3 (Fed) exemptions:

Spartan on Flax
Harmony on Safflower

IR-4 Residue Studies to be Conducted in 2010:

Fungicides (F), Insecticide (I), and Herbicide (H) =
Potato = difenoconazole (F), fenpyroximate (I)
Dry beans, Pea, and Sunflower = metconazole (F)
Dry beans = flonicamid (I)
Sunflower and canola = anthraquinone (bird repellent)
Flax = malathion, (I), B-cyfluthrin (I)
Field pea = fomesafen (H)
Mint = pendimethalin (H)
Canola = diquat (H)

Possible Future IR-4 Studies:

Millet Harmony (thifensulfuron)
Safflower Spartan (sulfentrazone)
Sunflower (Express resistant) - Harmony (thifensulfuron)

New Weed Watch:

Narrow-leaved Hawk's-beard

- reports have come in from Richland County to Williston
- a problem more in no-till/reduced-till fields
- winter annual but can germinate in fall or spring
- can survive normal rates of 2,4-D
- higher rates of Roundup / generic glyphosate needed after plants bolt
- much more difficult to control after bolting begins
- ID = confused with prickly lettuce, sowthistle, and sometimes dandelion (in rosette stage)

Web sites for more information:

http://akweeds.uaa.alaska.edu/pdfs/species_bios_pdfs/Species_bios_HIUM_ed.pdf

<http://www.topcropmanager.com/content/view/2265/>

<http://www.topcropmanager.com/content/view/4462/>

<http://www.reducedtillage.ca/article57.aspx>

Quick reference information:

1. NDSU Weed Science Home Page:

<http://www.ndsu.edu/weeds/>

2. <agdakota> list serve: Timely updates in pesticide registration and crop production information. To subscribe, send email to r.zollinger@ndsu.edu

3. U.S. registered pesticide labels:

<http://www.cdms.net/manuf/manuf.asp>

4. North Dakota Department of Ag registered pesticide database:

<http://www.kellysolutions.com/nd/>

5. North Dakota Pesticide Training and Certification Program:

<http://www.ag.ndsu.nodak.edu/aginfo/pesticid/pesticid.htm>

6. SAFETY AND EMERGENCY PHONE NUMBERS:

ND Poison Control Line: 800 222-1222

ND Emergency Assistance Line: 800 472-2121

Report pesticide incident to NDDA: 701 328-2232

The NDSU Extension Service does not endorse commercial products or companies even though reference may be made to tradenames, trademarks or service names.

For more information on this and other topics, see: www.ag.ndsu.edu

This publication may be copied for noncommercial, educational purposes in its entirety with no changes.

Requests to use any portion of the document (including text, graphics or photos) should be sent to NDSU.permission@ndsu.edu.

Include exactly what is requested for use and how it will be used.

North Dakota State University does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, disability, age, status as a U.S. veteran, sexual orientation, marital status, or public assistance status.

Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708.

County Commissions, NDSU and U.S. Department of Agriculture Cooperating. This publication will be made available in alternative formats for people with disabilities upon request, (701) 231-7881.

17M-12-10