**HERBICIDE UPDATE:**

**Discontinued products:** Accolade, Bayonet 2, some bromoxynil/bromoxynil + MCPA/2,4-D products, Brazen, Buctril, Cerainty, Clearfield Max, Curio, Expert, Glyphosate products sold by Syngenta (Touchdown products and Traxion), FireFox, G-Max Lite, Gramoxone Inteon, Guardsman Max, Hardball, Imperium, Journey, PowerPlay, Pulsar, Require Q, Sahara, Stanza, Stout, Telar, Tie Down, Wolfpack Advanced, Zemax.

**Name change:** Allu vex (Dupont) = Lead Off (Dupont)

**Formulation change:**
- Old - Anthem (FMC) = fluthiacet + pyroxasulfone 0.0632 + 2.09
- New - Anthem Maxx = fluthiacet + pyroxasulfone 0.126 + 4.174SC
- Garlon (triclopyr-ester) = Vastian (triclopyr-choline)
- Valor SX (51WDS) = Valor EZ (4SC) (2 oz DF = 2 fl oz SC)

**Generic product changes:**
- DuPont products: (Q designates a safener for corn)
  - Allu vex = rimsulfuron + Harmony 16.7 + 16.7% - corn EPP/PRE
  - Basis Blend = rimsulfuron+Harmony 20%+10% - corn PRE/POST
  - LeadOff = rimsulfuron + Harmony 16.7 + 16.7% - corn EPP/PRE
  - Resolve Q = rimsulfuron+Harmony 18.4%+4% - corn PRE/POST
  - Require Q = rimsulfuron + dicamba 6.25%+53% - corn POST
  - Realm Q = rimsulfuron + Callisto 7.5% + 31.25% - corn POST
  - Revulin Q = Accent + Callisto 14.4%+36.8% - corn POST

- Tensallos = Harmony + Starane - POST in small grains
- Travallas = Harmony + Ally + Starane - POST in small grains
- Panoflex = Harmony + Express 10%+40% - fallow and EPP
- Affora = Harmony + Express + Valor. EPP/PRE in soybean.

**New products/formulations:**
- Avadex MA 10DF (Gowan) = same ai (triallate) as Far-Go
- Acuron Flexi (Syngenta) = Acuron without atrazine
- Anthem Flex (FMC) = Zidua + Aim registered in wheat
- CleanTraxx (Dow) = penoxsulam & oxifluorfen - Reg. pending
- DiFlexx Duo (Bayer) = dicamba & Laudis & cyprosulfamid safener in corn
- Engenia (BASF) = dicamba-BAPMA salt in dicamba resistant sorghum - Registration pending
- Enlist Duo (Dow) = 2,4-D-choline salt + glyphosate-dma salt in Enlist soybean - Seed trait registration pending
- FeXapan (Dupont) = XtendiMax (Monsanto) = dicamba-dga + VG
- Quelex = florasulam & halauxfen in small grains
- Rescor (Dow) = Surpass + Callisto + Stinger in corn
- Roundup Xtend = glyphosate-mea + dicamba-dga (Clarity) + VaporGrip in dicamba resistant soybean - Registration pending
- Talinor (Syngenta) = bromoxynil & bicyclopyrone & safener in small grains - Registration pending.
- Teammate = pyroxsulam & safener in wheat - Reg. pending
- Warrant Ultra (Monsanto) = Warrant + Flexstar in soybean
- XtendiMax = dicamba-dga (Clarity) + VaporGrip in dicamba resistant soybean
- Zidua Pro = Zidua + Sharpen + Pursuit in soybean

**Major Weed Guide Updates**
- Flexstar geography expanded to some ND counties west of hwy 281 for weed control in soybean - see page 26 - Reg. pending
- Roundup Xtend soybean - strongly advised to read ND supplemental label and page 28 and paragraph E4 on page 81. Registered herbicides:
  - XtendiMax = dicamba-dga salt (Clarity) + VaporGrip
- Refer to web site: [www.xtendimaxapplicationrequirements.com](http://www.xtendimaxapplicationrequirements.com) for required information. Follow label with extreme exactness!

**Summary of new information in the 2017 Weed Control Guide:**

Herbicide registration pending:
- 1. RU Xtend = glyphosate-mea + dicamba-dga + Vapor Grip
  - 64 fl oz/A = dicamba at 1 pt/A (0.5 lb ae/A) + glyphosate at 1 lb ae/gal
- 2. Engenia (BASF) = 5SL = dicamba-BAPMA salt
  - BAPMA = (Bis(3-aminopropyl)methylamine)
- 3. Registration of other dicamba brands possible:
  - FeXapan (Dupont) = XtendiMax + Vapor Grip

- Pasture and rangeland - DuPont products sold to Bayer.

**Herbicide Resistant Weeds:**
- Palmer amaranth documented in MN from contaminated native seed mixtures primarily for pollinator plots. Please continue to watch for any Palmer amaranth in ND from transported seed.
- Group 14 PPO resistant waterhemp documented in MN.
- Group 14 PPO resistant common ragweed suspected in ND.
- Group 14 PPO and Group 4 (dicamba) resistant kochia likely to develop in ND.

- **Crop rotation restrictions** clarified for dicamba.
- Banvel, Clarity, and XtendiMax - page 6 and 102.

- **Guidelines for laboratory analysis from plant tissue:**
  - Glyphosate on dry beans - page 106.
  - Other pending crops to be added in the future.

- **Residual weed control (weeks) added to Soil Applied Herbicide section** - page 112.

- **Herbicides Compendium updated** - Products/prices updated - pages 118-125
- **Adjuvant Compendium updated** - Products/prices updated. Sections created: +/- ammonium - pages 126-128.

- **2017 Weed of the Year - Horseweed.**

**Emerging New Active ingredients:**
- tolpyralate (ISK Biosciences) - HPPD (Group 27) in corn

**Expected Weed Management Traits:**
1. **Enlist Weed Control System (Dow)**
   - DHT 1 technology in corn = resistance to 2,4-D and “fops”
   - DHT 2 technology in soybean = resistance to 2,4-D, MCPA, fluoroxypr, and triclopyr.
   - Enlist Duo herbicide = 2,4-D-choline salt + glyphosate-dma (1.6 + 1.7 lb ae/gal)
   - 3.5 to 4.75 pt/A = 0.7 to 0.95 lb ai/A 2,4-D + 0.75 to 1 lb ae/A glyphosate

2. **HPPD resistant soybean (Bayer/Syngenta)**
   1. Balance Bean - isoxaflutole herbicide in soybean
   2. Balance GT - HPPD + glyphosate in soybean

**IR-4 Residue Studies to be Conducted in 2017:**
- Bassica crop group - uniconazole
- Dry bean/dry pea - propanoazol, pyroxasulfone, tribenuron
- Grasses (pasture) - pronamide
- Mint - fluopyram, saflufenacil
- Safflower - befenthrin
- Sunflower - diquat (preharvest)
- Quinoa - cycloate, mandipropamid
- Safflower - befenthrin
- Mint - fluopyram, saflufenacil
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- Sunflower - diquat (preharvest)
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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. 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

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NDSU Dept 7060, 205 Walster Hall
Fargo, ND 58108-6050
Phone: 701-231-7180, Fax: 701-231-5907
Email: ndsu.pesticide@ndsu.edu
www.ndsupesticide.org

For pesticide enforcement, compliance, registration, and regulatory issues, contact the Agriculture Chemical Division at the North Dakota Department of Agriculture
600 E Blvd Dept 602, Bismarck, ND 58505-0020
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