**HERBICIDE UPDATE:**
Discontinued products: Raze.

**Restricted Use Products (RUP):**
Dicamba formulations of Engenia, FeXapan, and XtendiMax.

**Weed Guide Updates**
- Added Authority Supreme to soybean, sunflower, dry pea, and chickpea.
- Added ImpactZ to corn section.
- Added Axial Bold to wheat section.
- Added Warrant to Alfalfa.
- Added Valor to pre-harvest in wheat.
- Added Fierce MTZ to soybean section.
- Added Elevore and Quelex to plant-back interval page 6.

**Roundup Xtend soybean** - strongly advised to read page 29 and paragraph E4 on page 83. Refer to Bayer, BASF, and DuPont web sites for application information.

**Crop rotation restrictions** updated for several herbicides - pages 6, 104-106.

**Herbicide Resistant Weeds:**
- Palmer amaranth found in five ND counties in 2018. One population tested was glyphosate-resistant. Please continue to watch for any Palmer amaranth in ND from transported seed.
- Identified kochia tolerant to 2 and 4 fl oz of dicamba
- Identified more wild oat and green foxtail populations resistant to Group 1 and 2 herbicides.

**Weed of the Year** - Stinkgrass - page 132

**Discussion on air temperature inversions** - page 133.
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 thomas.j.peters@ndsu.edu
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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For information about pesticide certification contact the North Dakota State University Extension Pesticide Program
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
Toll Free: 1-800-242-7535, Fax: 701-328-4567
Phone: 701-328-2231
Email: ndda@nd.gov, www.nd.gov/ndda

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