

## Step by Step Guide to Growing Winter Wheat in East Central Nebraska

### Step 1: Variety selection and seed treatment

Table 1. Eastern Nebraska winter wheat variety selection table (list of varieties based on company recommendation/product placement). Nebraska winter wheat variety testing yield results at <http://cropwatch.unl.edu/winter-wheat-variety-test-results>

Variety (release year)	Relative Maturity to Flowering	Plant Height	Standability (1 excellent 9 poor)	Test Weight	Fusarium Head Blight Rating (1 res., 9 susc.)	Notes
WB4269 (2017)	E	S	2	Average	5	Good disease resistance package
SY Benefit (2018)	E	M	4	Average	6	Use fungicide to manage leaf rust
LCS Valiant (2019)	E-M	M	3	Average	7	Great 3-yr performance in variety trial
NP Siege (2018)	E-M	M-T	2	Excellent	7	Great 3-yr performance in variety trial
AM Eastwood (2018)	E-M	S	2	Average	7	Responds well to intensive management
LCS Revere (2019)	E-M	M	4	Average	7	New variety
KWA Zenda (2016)	M	M	2	Excellent	4	Great 3-yr performance in variety trial
WB-Grainfield (2012)	M	M-T	5	Good	7	Great 3-yr performance in variety trial
DG Long Branch (2016)	M	M-T	6	Average	7	Manage for improved standability
WB4303 (2015)	M	S-M	1	Low	8	Below average test weight
HG Freeman (2013)	M	M	4	Low	7	Below average test weight
WB4595 (2018)	M	M	2	Average	7	Broadly adapted
WB4699 (2018)	M	S	2	Average	4	Great disease resistance package
<b>SY Wolf (2011)</b>	<b>M</b>	<b>M</b>	<b>2</b>	<b>Average</b>	<b>7</b>	<b>Current standard variety for this area</b>
SY Monument (2015)	M	M	4	Average	7	Most planted variety in NE last year
LCS Mint (2012)	M-L	M-T	4	Average	8	Excellent end-use qualities
HG Ruth (2015)	M-L	M-T	3	Average	7	Great 3-yr performance in variety trial
LCS Chrome (2016)	M-L	M-T	3	Average	7	Great disease resistance to rusts
LCS Link (2017)	M-L	M-T	3	Good	7	Broadly adapted variety
HG Overland (2007)	L	M-T	3	Average	5	Old standard variety for this area

Seed: Syngenta AgriPro (SY), WestBred (WB), Husker Genetics (HG), Kansas Wheat Alliance (KWA), LimaGrain Cereal Seeds (LCS), Dyna-Gro.

Relative Maturity: Early (E), Medium (M), Late (L). Plant Height: Short (S), Moderate (M), Tall (T)

#### Local seed suppliers:

- List of all certified seed growers in 2019-20 NE Crop Improvement Association Seed Book: <http://www.necrop.org/SEED%20BOOKS/2019Small.pdf>
- Check with local retailers that may source certified varieties

#### Seed orders and seed treatments:

- Contact in late August or early September to place orders. Local suppliers can offer seed in 50 lbs bags or bulk
- How much to order? Tell seed supplier target seeding rate per acre (e.g. 1.2 million seeds per acre), not pounds per acre. Use new Excel-based Crop Tech Cafe Seeding Rate Calculator at <http://croptechcafe.org/winterwheat> to determine total bags/units needed.
- Request fungicide seed treatment, highly recommended! Ask seed provider for seed treatment fungicide options, typically \$3 per bag/unit. Insecticide seed treatment more likely to be profitable on early plantings only.

## Step 2: No-till planting practices

- Recommended target planting dates at <http://croptechcafe.org/winterwheat/>
- Final planting date for 100% crop insurance is Oct. 10 or 15. Delayed planting coverage to Oct. 25 or 30.
- Recommended seeding rates by calendar date:
  - Sept. 15 – Oct. 6 = 1.2 million PLS/acre
  - Oct. 7 – Oct. 14 = 1.35 million PLS/acre
  - Oct. 15 – Oct 21 = 1.5 million PLS/acre
  - Oct. 22 – Oct 29 = 1.65 million PLS/acre
  - Oct. 30 or later = 1.8 million PLS/acre
- Calculate how many pounds of seed you need by using the Excel-based Crop Tech Cafe Seeding Rate Calculator at <http://croptechcafe.org/winterwheat>. Spend time to calibrate and check your drill settings match actual rates.
- Recommended no-till planting depth of 1.5 inches. Seeding shallow can lead to increased chance of winterkill

## Step 3: Nitrogen, phosphorus, sulfur, and chloride fertilizer

- Starter fertilizer at planting is ideal, but many local drills not setup for starter fertilizer
- At planting, broadcast apply 100 lbs MAP (11-52-0) or DAP (18-46-0) per acre fertilizer for phosphorus and a low rate of nitrogen if you don't use starter fertilizer.
- Apply 90 to 120 lbs of total nitrogen per acre through various fertilizers and timings
  - In March after greenup, apply your nitrogen, sulfur, and chloride
    - Apply 70 – 100 lbs N/acre (dry ammonium nitrate available from Kaup Seed)
    - 10 lbs sulfur/acre, such as 40 lbs of ammonium sulfate/acre (can be fall applied too)
    - 20 lbs chloride/acre, such as 40 lbs of potash/acre (can be fall applied too)
  - Prior/close to jointing of wheat, you can split apply some of your March greenup nitrogen portion.

## Step 4: Diseases and foliar fungicides application needed most years

- Most common fungal diseases in our area that can cause significant yield or grain value loss:
  - Fusarium head blight: <http://extensionpublications.unl.edu/assets/pdf/ec1896.pdf>
  - Stripe and leaf rust: <http://extensionpublications.unl.edu/assets/pdf/g2180.pdf>
  - Wheat Variety Disease & Insect Ratings 2019: <https://www.bookstore.ksre.ksu.edu/pubs/MF991.pdf>
- Foliar fungicide application at flowering (Feekes 10.51) will help reduce scab and vomitoxin (DON) that may cause dockage or rejection at local elevators. Caramba, Prosaro, or Miravis Ace are fungicides to use for controlling scab.

## Step 5: Local elevators in Fremont

- Call Scoular Grain at 402-721-9767 or ADM at 402-721-1468 for dockage schedule and more information
- Protein above 12.0% and less than 13.5% moisture

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Visit <http://croptechcafe.org/winterwheat> for more information