

Yankton Seed House



Advancing your seed genetics



Tech Sheet for Cereal Oats

Oats is an annual cereal grain used primarily as a companion crop to establish alfalfa, as livestock feed, and human consumption.

- Approx. 16,200 seeds per pound, 32 pounds per bushel
- Average 2008 yield across the five U of MN primary test sites was 107 Bu./Ac. Management considerations
- Avoid fields with a large population of weeds, especially wild oats and Canada thistle.
- To reduce disease pressure, stay away from fields with cereal stubble such as barley or oats.
- Avoid fields with residual herbicides that kill oats or wild oats (e.g. trifluralin). Optimum Planting Dates
- The recommended planting dates for oats in the upper Midwest:

Minnesota	Optimum	Last Planting Date
South of MN Hwy 210	1st week of April	2nd week of May
South of US Hwy. 10	3rd week of April	3rd week of May
South of US Hwy 2	4th week of April	4th week of May
South of Can. Border	1st week of May	1st week of June
South Dakota	April 2-May 1	
North Dakota	April 25-May 5	
Wisconsin	April 10-25	

- Studies at Iowa State University have shown a loss of 1.3 bushels/acre/day if oats are planted after April 16.

Oats Seeding Recommendations

- Plant between 80 to 110 lbs. (about 3 bushels) of seed per acre in order to achieve a recommended 28 to 30 plants/sq. ft. (Reduce to 1½ to 2 bushels per acre if over-seeding alfalfa.)
- Good seed-soil contact and adequate moisture is essential when the grain is seeded. Prepare a firm seedbed for good germination and seedling development. Dry, loose soil makes for an unsatisfactory seedbed.
- Drill about 1 to 2 inches deep, depending on soil moisture and soil texture. A grain drill with press wheels is the best because it places the seed at a uniform depth and gives good soil-seed contact. Seed placed deeper than three inches may result in reduced emergence and reduced yields.
- Can be seeded with an end-gate seeder (or fertilizer spreader) and dragged. Fertilization (Consider a soil test and please contact your fertilizer professional for your specific needs):
- Nitrogen: Apply 0-30 lb/acre N following fallow or legumes, 30-55 lb./acre following grass and grass-legume and 55-90 lb./acre N following stubble. The primary nitrogen deficiency symptom is leaf yellowing starting with the older leaves. Too much nitrogen can cause severe lodging.
- Phosphate: Apply phosphate at 30-40 lb/acre. The primary phosphorus deficiency symptom is leaf purpling/browning starting at the tips of older leaves on the seedling.
- Potassium: On sandy-textured or organic soils apply potassium at 15-30 lb./acre potash in a sideband or 30-60 lb./acre broadcast. Ideally, potassium should be placed with the seed. Deficiency symptoms are difficult to detect but include short internodes and weak stems.
- Sulfur: Apply sulfate sulfur at 15 lb/acre on well-drained soils. A soil test is recommended to establish the available sulfur status of fields. Weed and Disease Control (This is not intended as a recommendation or endorsement of any specific product but as a list of possible controls. Please contact your chemical professional for your specific needs and always read and follow label directions):
- Seeding as early as possible in the growing season enables the cool season small grain crop to compete effectively with weeds, especially with warm season annual grasses. Research has shown that herbicides generally are not needed for green and yellow foxtail control in small grains if the small grain is well established before the foxtail emerges.

- Grass Control (foxtail): Puma
- Broadleaf Control: Bromite Plus works well, 2,4-D or MCPA can also be used.
- It may be possible to spot treat areas in the field rather than the entire field.
- Fungicides: Consider applying 6 – 9oz. of Headline (or another fungicide) when the flag leaf emerges. Check with your chemical advisor for rates and timing. A second application may be needed in wet years.

