

Oat Growers Manual Quick Reference Guide

This reference guide should be used in combination with the Manual for Western Canadian Oat Growers where more detailed information is provided. Page numbers indicate location of each section.

Field Selection (Page 21)

Oats are grown best after canola, hayfields, peas, lentils, soybeans, and/or other legumes. Pulses give the oat crop a strong yield potential by providing nutrients and reducing disease risk. Because of the wild oat control achieved in canola crops, they may be preferable to pulses as a rotational crop, if wild oats are present. Cereal stubble should be avoided because of volunteer cereals that are difficult to control.

Variety Section (Page 9)

Variety selection should **first** consider the specific market being targeted.

Different varieties are suited to different regions, consider

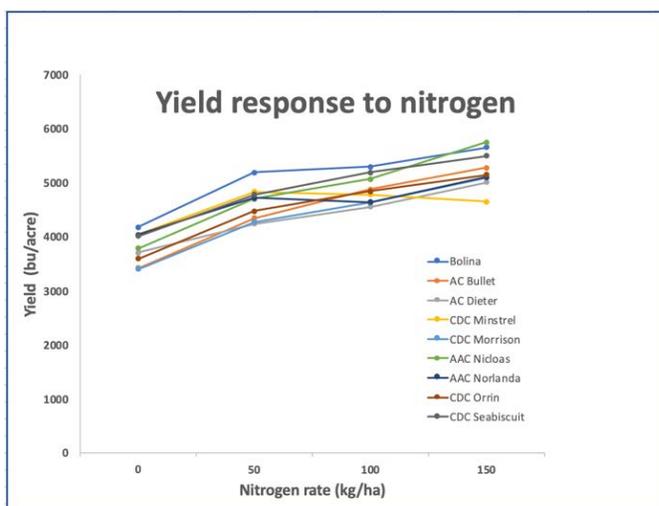
- yield potential in your area,
- common diseases in the region,
- other agronomic concerns such as frequency of lodging.

Agronomy (Page 21)

Fertility (Page 30)

Conduct a soil test to determine residual fertility then apply fertilizer to meet crop needs for your region or soil type and end use.

- Nitrogen levels of 89 lbs/acre (100 kg/ha) have been shown to be optimal for yield and milling quality. Higher nitrogen will increase yield, **but at the expense of groat size**.
- Each variety may vary in response to nitrogen.



Adapted from Yan et al 2017.

- Use a minimum of replacement levels of phosphorus to maintain fertility, apply 50% with the seed.
- In cold, wet soils, 15 lbs/acre (17 kg/ha) of potassium chloride (0-0-60), seed row applied may result in a positive crop response.

Avoid fields with

- Cereal stubble,
- Heavy wild oat populations, and
- Herbicide residues that may affect oats.

- Many oat buyers have variety preferences.
- Communicate with the buyer before selecting a variety.

- Soil test to determine residual soil fertility.
- Add sufficient nitrogen to meet yield goals.
- Add a minimum of replacement levels of phosphorus.

Seeding (Page 23)

- Use certified seed or your own seed cleaned.
- Use a seeding rate calculator to determine seeding rates for your variety.
- Seed early to increase yield, competitiveness with weeds and reduce late harvest concerns.
- Use higher seeding rates (some research recommends 44 plants/ft² (473 plants/m²)).

- **Seed early to increase yield and avoid late harvest.**
- **Use a high seeding rate.**

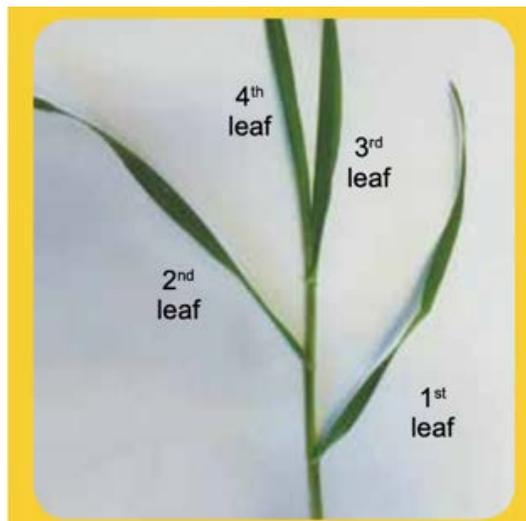
Pest Management (Page 36)

Weed Management (Page 37)

- Wild oats, volunteer cereals and other grasses cannot be controlled in oats with in-crop herbicides. Use integrated weed management.
- Broadleaf weeds can be controlled with a variety of herbicide options. Consult the provincial Crop Protection Guide/Manual for current information.
- Most herbicides are applied between the 2 and 4 leaf stage (consult the provincial Crop Protection Guide/Manual). Apply early to reduce yield loss.
- Use higher seeding rates (some research recommends 44 plants/ft² (473 plants/m²)).

For wild oat management:

- **Avoid fields with high wild oat pressure.**
- **Seed at a high rate.**
- **Seed early to increase crop competition.**



Disease Management (Page 40)

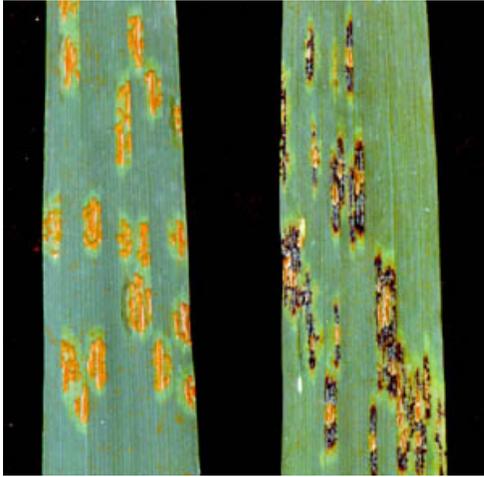
Diseases vary by region. The best way to reduce disease is to use a disease-resistant variety.

The most damaging to oats are:

- Rusts, crown rust, and stem rust
- Fungal leaf spots

Application timing for fungicides varies with the product. Consult the provincial Crop Protection Guide/Manual and pesticide label to ensure the correct product is used at the correct rate and stage.

- **Grow disease resistant-varieties.**
- **Seed early.**
- **Scout fields for disease.**
- **Apply fungicides as required.**



Crown rust



Stem rust

Harvest and Storage (Page 50)

If required, apply a desiccant to increase crop dry down. Options include products containing carfentrazone and glyphosate.

Check with the buyer to determine if pre-harvest glyphosate is approved before applying.

If buyer approved, use glyphosate only when the seed moisture is less than 30%.

Oats should be swathed when kernel moisture content is between 30% to 36% to avoid negative impacts on groat yield and test weight.

- **Check with your buyer to determine if glyphosate is approved before applying.**



Seed at 30% moisture.

Oats left too long in the field can weather, lose quality and shatter.

Dry oats after harvesting, if necessary, to reduce spoilage. See safe storage chart at right for more information.

Safe storage chart for oats

