Optimizing Management of Small Grain Forages

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Small Grain Forages

- Barley
- Oats
- Triticale
- Wheat

Management

- Variety selection
- Planting date
- Seeding rate
- Fertilizer rate
- Irrigation amount
- Pest control
- Harvest management

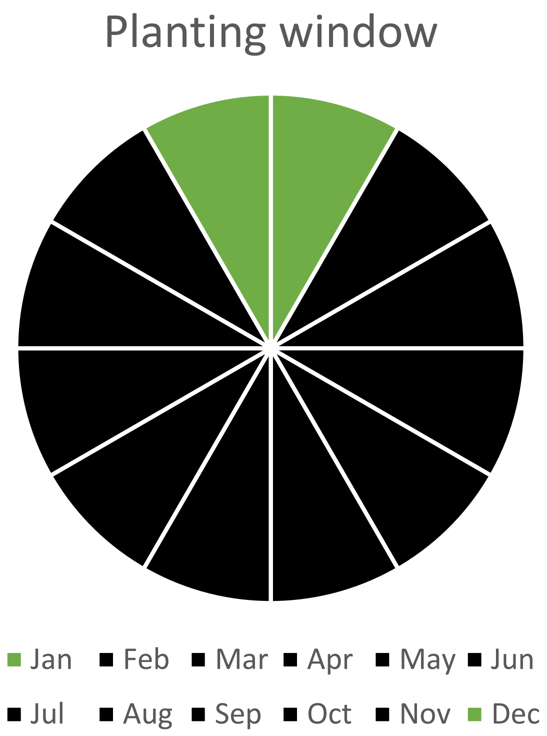
Variety selection

Awned wheat

Awnless wheat

Planting date

Grain - Winter



Forage – Fall, winter, spring

Seeding rate

- ~20% higher for forages
- Higher rates produce finer stems
- Lodging not as much an issue with forages

Fertilizer rate

- Forages more tolerant of high N rates
- Lodging not as damaging in forages
- N requirement not as high due to shorter season and no need for extra N to boost grain protein as in wheat

Irrigation amount

- Forages more tolerant of high water amounts
- Lodging not as damaging in forages
- Water requirement not as high due to shorter season

Weed control

- Weeds contribute to forage yield
- Weeds not palatable or toxic
- Weeds do not dry evenly
- Weeds contribute to variability in quality

Insect control

- Insects usually not a problem in small grains
- Insects can disproportionately affect grain yield

Disease control

- Chemical control generally not economical
- Diseases disproportionately affect grain yield
- Fungal toxins not as important in forages

Harvest management

- Cut at boot or soft dough
- Direct feed or ensile

Summary

- Small grains can be grown similar whether for grain or forage except
  - Varieties can be different
  - Forages can tolerate higher rates of seed, fertilizer, and water
  - Pest control is not as critical for forage crop
  - Forages are harvested at an earlier stage of growth than grain