CARC Oilseed & Cropping Systems Studies

CARC Research Roundup
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• Jenni Hammontree, Ranch Foreman
• Darryl Grove, Farm Manager
• Tim Bishop, Farm Mechanic
• Lorrie Linhart, Administrative Associate III
Equipment Improvements
Equipment Improvements
Safflower Variety Trial
Figure 1. Seed yield of three linoleic (Cardinal, Finch, NutraSaff), three oleic (Hybrid 1601, MonDak, and Montola 2003), and two spineless (Baldy, Rubis Red) safflower varieties/hybrids at the MSU Central Ag. Res. Ctr. during 2016 through 2018.
Figure 2. Seed oil content of three linoleic (Cardinal, Finch, NutraSaff), three oleic (Hybrid 1601, MonDak, and Montola 2003), and two spineless (Baldy, Rubis Red) safflower varieties/hybrids at the MSU Central Ag. Res. Ctr. during 2016 and 2017.
Summary

- Safflower yields low at the MSU CARC compared with other places in central MT (e.g., Geraldine)

- Variable and shallow soils are problematic
Rotation And Tillage Systems
Trial
Winter wheat yield

2017

2018
Summary

- Cropping systems (WW-F, WW-SW, WW-B-L, WW-B-P, SW-P-MIL-SAFF) established; first time through all of them in 2020

- Variable and shallow soils are challenge
Warm-Season Crop Sequence Trial
- Foxtail (browntop, German, Hungarian), proso, pearl millet
- Cowpea (bush and vine type)
- Bean (mung, navy, pinto, soy)
- Sorghum (forage, grain, sorghumXsudan)
- Sudangrass & Teff
- Buckwheat, corn, sunflower
- Corn + pinto, proso+pinto, corn+proso+pinto+soy

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- HRSW, spring pea, barley+HRSW+lentil+pea
- Fallow
Figure 3. Dry matter yield of six crop treatments grown as cover crops and killed at heading (grasses) or first flower (broadleaves) in four environments at Moccasin, MT, during 2016 through 2018.
Figure 4. Dry matter yield of six crop treatments grown for forage in four environments at Moccasin, MT, during 2016 through 2018.
Figure 5. Wheat grain yield following six crop treatments and fallow in three environments at Moccasin, MT, during 2016 and 2017.
Summary

- Warm-season options for cover and forage
- Grain/seed production is risky
- (Thus far) No yield drag in subsequent wheat crop
Rotation And Tillage Systems Trial
Crop Matrix Trial
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