

Corn - Winter Camelina - Relay Soybeans

Strategy:

- Relay crop camelina with soybeans for spring camelina harvest and fall soybean harvest
- Consider planting earliest maturing corn in fields where camelina will be planted that fall
- Camelina may be sensitive to spring-applied residual herbicides but as of fall 2022, we have not seen any impact of residual herbicides on our camelina trials
- Spring applied fertilizer is highly recommended for adequate camelina seed yields
- Camelina seed is small and dense - keep that in mind when adjusting machinery for planting and harvest

Step 1: Fall Prep and Seeding

- Harvest fields where camelina will be planted as early as possible in the fall
- If planting into corn residue, either break up residue or bale it so that camelina has better seed to soil contact
- If possible, try to plant before Oct. 15th but no earlier than Sept. 15th (approx.)
- Seeding rate for spring camelina seed harvest should be 10 - 12 lbs/acre
- Drilling with alfalfa or small seed box is preferred - ¼ inch seeding depth
- High-clearance overseeding, broadcasting, or air seeding is possible, consider using higher seeding rate to account for damaged plants when planting beans in the spring
- If using air seeder, consider using canola meter for planting

Pro-tip: Camelina is a biennial mustard but it has the tendency to bolt and die over winter if planted too early. Ideal planting is early to mid October.

Step 2: Spring Fertilizer Guidelines

- University of Minnesota recommends 60 lbs N, 20 lbs P, 30 lbs K as a base plan - treat similar to canola or rape
- Winter application of P & K and spring broadcast application of N is recommended but try to have at least 60 lbs of N present in the soil by the time growth takes off in the spring

Step 3: Planting Soybeans

- Either plant beans in between camelina rows (skip row) or plant at an angle
- Consider using herbicide resistant bean variety - Ex: Enlist or Extend
- Plant beans after first week of May but no later than third week of May
- Try to plant beans when camelina is bolting but before it starts to flower

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Step 4: Spring Herbicide Considerations

- Weed control may not be an issue until after the harvest of winter camelina
- Should be able to apply pre-emerge herbicides after soybeans have emerged
- Sonolan HFP is a pre-emergence herbicide labeled for camelina that will control weeds and not hurt soybeans
- Agristar's Trifluralin is a pre-emergence herbicide that is labeled for camelina but it requires an incorporation pass
- For late October or November planted camelina, seed might not germinate until the spring - in this instance, pre-emerge herbicides will kill the camelina in the spring

Step 5: Termination and Harvest of Camelina

- Camelina is mostly determinate and will mature all at once. Wait for pods to turn yellow all over, plant will still be green. Unless spring is particularly cold, camelina should be ready for harvest by early June
- Use glyphosate to terminate camelina at pod maturity and wait max. 10 days or less to harvest

Step 6: Harvest Notes & Combine Settings

- Combine adjustments: Anything you would use to harvest a small grain with will work for harvesting camelina
- Can use a combine with soybean head, but if it's a flex head, need to "lock it up"
- Concaves don't need to be very tight - camelina threshes out very easily
- Keep fan speed medium to low - don't want to turn it off completely
- Sieves or straw walkers on back - use a small grain sieve and keep it "tight" because seeds are dense and will fall through sieves quickly - keep sieves tight to prevent chaff from falling through to seed
- Seed will auger through combine fairly well
- Looking for 12 to 15% moisture when harvesting - Dicky John has a seed moisture meter with canola setting and want to keep at 10% moisture or less for storage
- Average harvest of anywhere from 500 to 1000 lbs/acre in the Midwest for relay-production systems

For information on advanced cover cropping or different species recommendations, contact our Conservation Agronomists!

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