

About Yield10

Yield10 Bioscience, Inc. is an agricultural bioscience company that is developing improved Camelina varieties for the production of biofuel feedstock oils, protein meal for animal feed, and over the longer-term PHA bioplastics and omega-3 (EPA, DHA) oils.



Yield10 Bioscience is offering growers 100% offtake camelina production contracts with no up-front grower seed costs for the 2023 spring growing season and net returns similar to Canola.

What is Camelina?



Camelina sativa is an oilseed plant in the Brassicaceae family related to canola or mustard seed. Camelina has been grown for 3000+ years in Europe for food, and more recently has attracted interest as a biofuel feedstock because of its high oil content and low carbon footprint. Camelina is a hearty plant that performs well in drought or low water conditions and is frost tolerant to as low as 14°F (-10 °C). Camelina also has a very short maturity, ranging from 85 to 100 days (3270 GDD).

Expected Yields



Expected dry land yields range from 1,250 pounds (24 bushels) to 1,550 pounds (31 bushels) per acre. Camelina has been shown to outperform Canola under stress and drought conditions in the prairie regions, with lower input costs due to less fertilizer requirements, insect pressures, and disease pressures.

Growing Camelina

Field Selection



Due to limited crop herbicide options for broadleaf weeds, growers should select fields with low weed pressure. Care should also be taken for Group 2 herbicide residues in the soil as Camelina can show injury from these chemistries.

Camelina can be planted using a drill or broadcast on the field, no special equipment required. The recommended seeding rate is 5-6 pounds per acre. Seed must be planted shallow ($\frac{1}{4}-\frac{1}{2}$ inch) with good seed-to-soil contact. Due to Camelina's frost tolerance it can be planted early to take advantage of spring moisture and cooler temperatures during flowering as well as spreading out grower workloads.



Fertilizer



Camelina has lower fertilizer requirements compared to Canola and most other crops, with a recommended dryland fertilizer blend being 40 - N, 20 - P, 10 - K, 10 - S.

Early season weed control can be achieved using the pre-emergent herbicide ethalfluralin, (example: SONALANTM or EDGETM) and grassy weeds can be controlled in crop using Quizalofop (example: ASSURETM) herbicides.



Insects



At this this time there has been **no insect pressures** identified as having an economic impact on camelina production. Camelina is **naturally resistant to flea beetles**.

While Camelina is **resistant to most diseases**, it is susceptible to Downy Mildew and Sclerotinia.



Harvest



Camelina has **natural pod shatter resistance** and can be straight cut using rotary or conventional combines. Due to the small seed size, care needs to be taken setting the combine to prevent losses. Alfalfa seed settings are a good starting point but always be sure to check combine losses. Target a harvest moisture of 8% or less for best storage.

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