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NASDAQ: YTEN

Camelina, a versatile oilseed crop for sustainable manufacture of low CI seed products

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Sustainable Growth Starts with a Seed



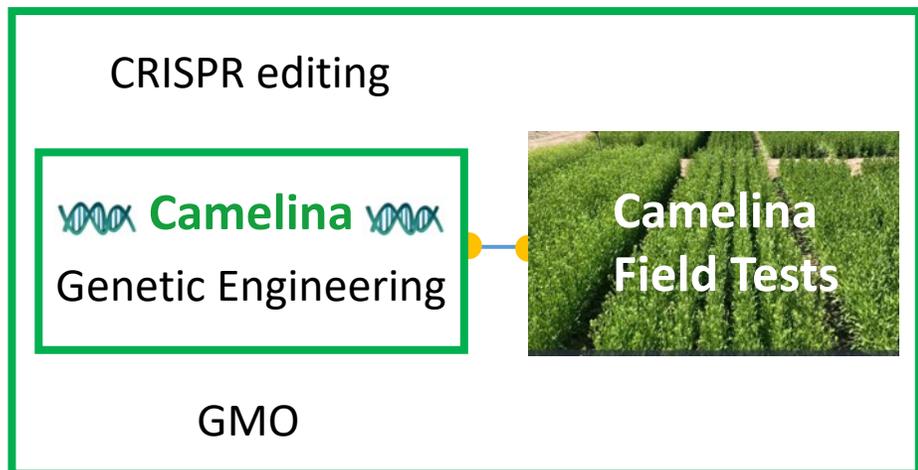
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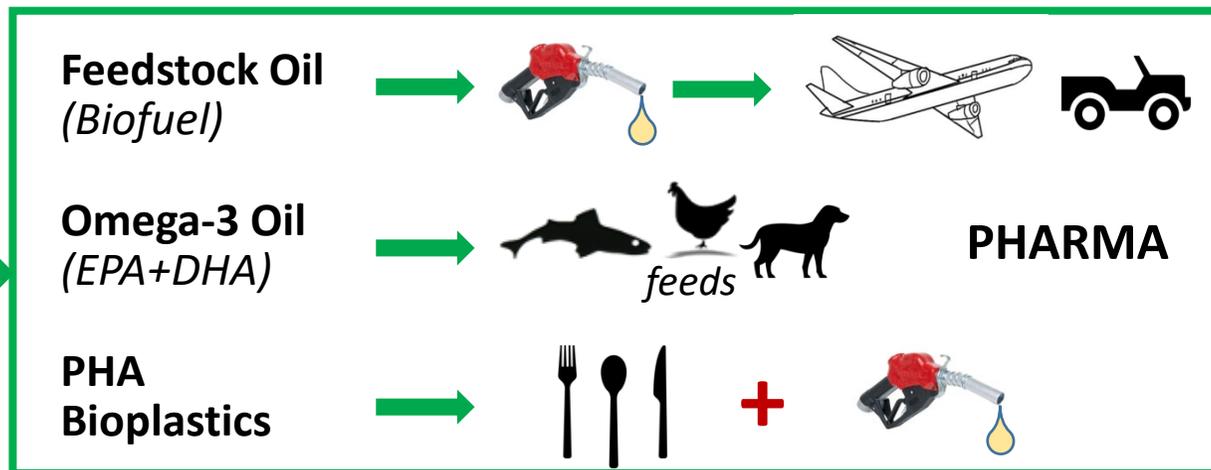
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Yield10 Camelina: From Crop Science to Market

Yield10 Technology Platform



Camelina Seed Products



2023: Yield10 demonstrated value chain for biofuels

- ✓ Camelina seed production
- ✓ Grower contracts
- ✓ Grain crushing
- ✓ Oil Offtake

Y10 Camelina grain harvest



Delivered grain



Why Camelina?

- Promising oilseed crop
 - Seed oil levels ~ 40% of seed weight
- Both spring and winter varieties
 - Winter varieties, potential use as intermediate crop for corn and soybean acres
- Doesn't outcross with canola
- Excellent platform crop for novel high value seed products - value proposition for farmer 
- ***Key oilseed for large scale biofuel feedstock oil production***



Greenhouse grown Camelina



Camelina field plots at flowering



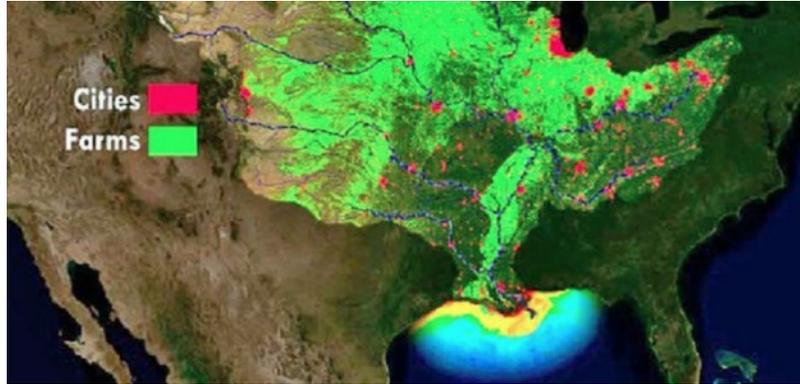
Large scale winter Camelina growth

Yield10 Camelina Review: *Camelina sativa*, an oilseed at the nexus between model system and commercial crop. Malik et al., Plant Cell Rep., 2018

Benefits of Cover Cropping

1. Reduce or prevent nutrient runoff

- *fertilizers contaminate ground water or end up in rivers/streams creating “deadzones”*
- *dead zone in Gulf of Mexico linked to nutrient inputs from cities and farms in Mississippi River Basin¹*



algal blooms



decomposition of algae = low oxygen levels in water

Gulf of Mexico dead zone 3,058 square mile in 2023 (NOAA)²

2. Protect and improve farmer's soil

- *Boost soil quality, prevent erosion, increase organic matter in root zone*
 - *Retain moisture in field, snow retained instead of lost to wind*
- Farmers reluctant to plant cover crops due to negative return on investment
 - Yield10 winter Camelina seed products can provide income to farmer

1. <https://mississippiriverdelta.org/learning/explaining-the-gulf-of-mexico-dead-zone/>

2. <https://coastalscience.noaa.gov/news/below-average-summer-2023-dead-zone-measured-in-gulf-of-mexico/#:~:text=In%20June%202023%2C%20NOAA%20forecasted,miles%20was%20set%20in%202017>

Camelina Based Biofuel Feedstocks

Potential of Camelina for Biofuel Feedstocks is Driven by:

Grower adoption – Requires **weed control** and seamless integration into crop rotations

Business success – Profitability → increase harvest value of biofuel feedstocks

- Seed yield per acre, oil as a percent of seed weight (oil/acre)
- Carbon intensity (CI) score of oil (carbon score as a trait target?)
- Improved protein meal value (remove anti-nutritionals)

Business success – Partnerships across the biofuel value chain

Yield10 has pipeline of Camelina lines and proprietary gene traits to increase value of Camelina

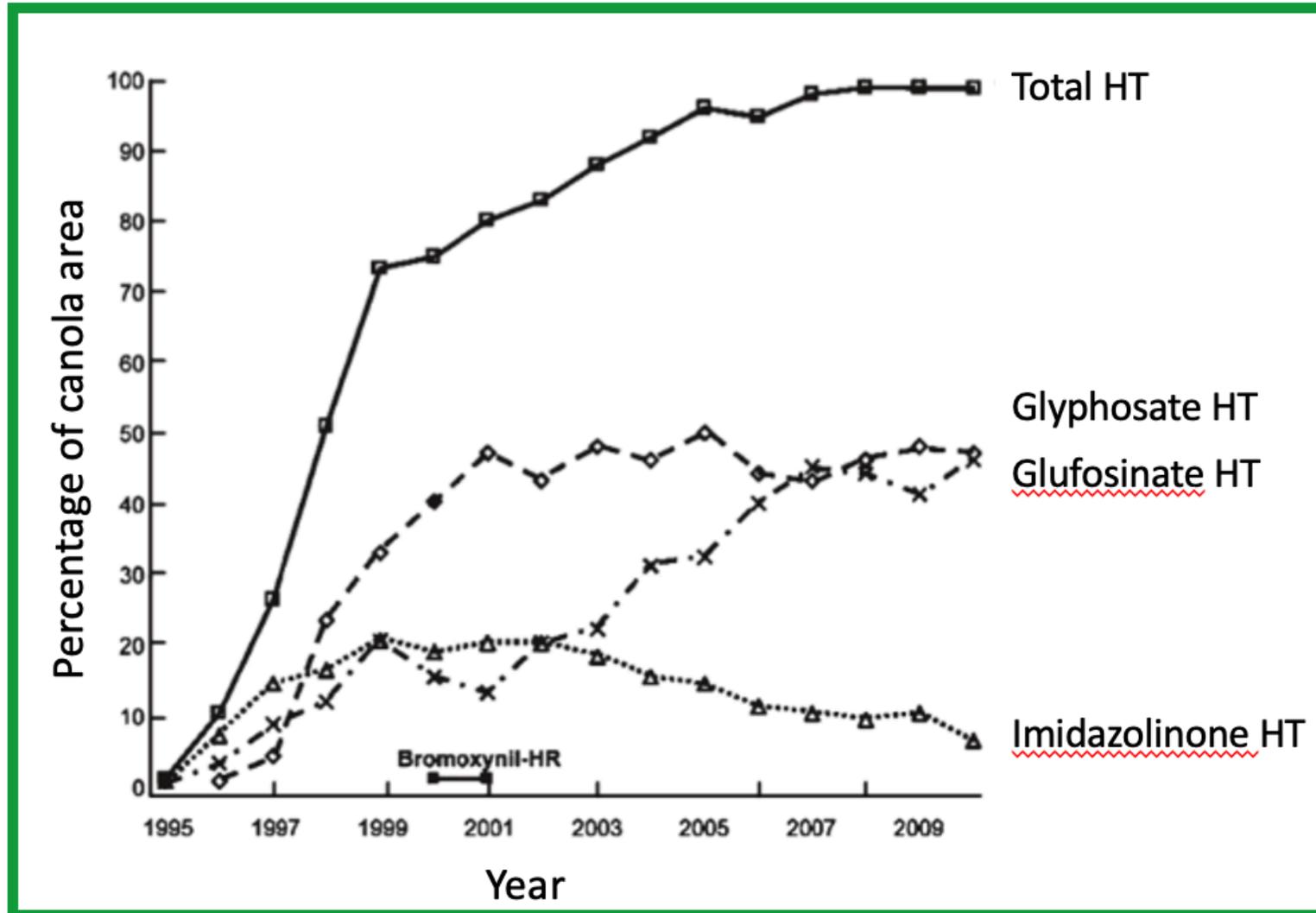
Priority 1: Herbicide tolerant Camelina to enable seamless integration into grower crop rotations

Priority 2: ↑ seed yield and seed oil content to increase the harvest value for biofuels

Priority 3: Meal quality traits to improve meal value

Farmers Want Herbicide Tolerance in Camelina

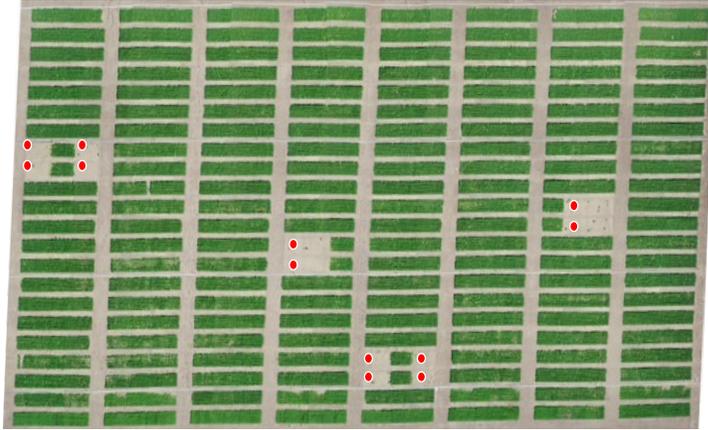
History of herbicide tolerant canola adoption for weed control



- Yield10 has developed robust herbicide tolerance (HT) in Camelina for broadleaf weed control & tolerance to herbicide soil residues
- USDA-APHIS RSR for growth of HT lines in US approved in 2023
- Response for label amendment pending from EPA

Glufosinate Tolerance in Spring Camelina Lines

Spring 2022 field trial
Drone image, Lead events identified



2022/2023 Contra-season trial
Robust tolerance of lead event



2023 spring HT trial
Lead events & controls



2023 spring HT commercial seed scale-up
Lead event



2023/2024 Contra-season Seed Scaleup in Chile.

Picture from 10 ha (24.7 ac) field. Total of 30 ha (74 ac) grown. Harvested Jan 2024



Clean Packaged Planting Seed



License to Y10 HT technology granted



Red dots in photos, control plots where plants died with herbicide application

Glufosinate Tolerance in Winter Camelina Lines

Winter 2023/2024 field trial in US

Events and controls treated with 1X spray of glufosinate in Fall 2023. Robust tolerance observed

Closeup of individual lines



Field view – Fall 2023



No herbicide controls

(Negative control is growing without glufosinate spray)

1X glufosinate spray in Fall 2023

*(Only Fall application performed to date, 2nd spray spring 2024)
(Negative control is dead after fall spray)*

1X glufosinate spray in Fall 2023

(Negative control is dead after fall spray)

Importance of 2023 Billion-Ton Report

Inclusion of oilseeds in 2023 report:

- Validates the value-potential of oilseeds including Camelina as feedstocks for renewable fuels
- Anticipate study's use as a solid reference with potential partners across value chain for market analysis
 - *Current production and future potential production of oilseeds*
- May help stimulate investment



Spring glufosinate tolerant Camelina in field



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Thank you!

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