

Crops for High Plains present opportunities, challenges

An increasing demand for healthy cooking oil (low in saturated fat) and a growing importance in biodiesel production are driving the interest in oilseed crops in the High Plains. Growing oilseed crops also offers rotational benefits including better weed management opportunities. The residual meal after extraction of oil from most oilseeds is an important source of protein for dairy animals.

Low and unpredictable precipitation levels in the High Plains make it less competitive in producing higher biomass crops without supplemental irrigation. Productivity of biomass crops is directly related to the amount of water used. Water resources for irrigation in the southern High

Plains is declining. Therefore, we need more water-efficient crops for the long-term sustainability of agriculture in the region.

In this situation, a well-adapted oilseed crop can play an important role.

Generally, flowering is the most important period for yield formation in all oilseed crops, and avoiding heat or water stress at this stage can help in optimizing yield. Relatively smaller amounts of water received at critical stages, either by rainfall or by irrigation, can produce a successful crop of oilseeds.

However, adaptability of oilseeds to a region depends on growing environment, soil type and management practices. Both spring and winter oilseed crops can be grown in the region.

Winter crops are planted early in the fall, and they produce minimum vegetative growth before freeze kills most of the foliage. They start re-growing early in the spring when the temperature starts warming up.

Growing season for winter crops is longer and cooler. They also flower earlier in the season compared to spring crops, thus reducing the heat stress at the most critical stage. Therefore, winter oilseed crops are expected to yield more than spring crops.

A number of oilseed crops have potential in the High Plains. Sunflower is a spring oilseed and is better adapted to heat and water stress. Both confectionary and oil-type varieties are available for production.

Safflower is also a heat and water stress-tolerant

crop. It was mainly grown in the spring, and now winter types are being developed.

Canola was developed by improving oil and meal quality of rapeseed as a spring crop.

Now winter varieties are available for production. Flowering in canola is susceptible for heat stress. While spring canola is more susceptible to heat stress, winter canola is susceptible to more insect problems.

Camelina is a non-edible oil crop suitable for producing high-quality biodiesel. Herbicide tolerance technology is available in canola and sunflower, and so can help in grass weed control in predominantly cereal-based cropping systems.

Two oilseed crops workshops are planned to discuss the production and marketing opportunities of oilseed crops. The first workshop will be held 12:30-4 p.m. Jan. 28 at the Clayton Civic Center. The second workshop will be conducted 1-4 p.m. Feb. 8 at the New Mexico State University Agricultural Science Center at Clovis.

Experts at the workshops will discuss production and marketing of potential oilseeds including canola, sunflower, safflower and camelina. Anyone interested in producing oilseed crops or in on-farm fuel production is encouraged to participate in these meetings.

Anyone with questions about the Clayton workshop can contact David Graham at (575) 207-7884. Anyone with questions about the Clovis workshop can contact Sangu Angadi or Mark Marsalis at 985-2292.

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