

New oilseed favors Southwest

By LEN RICHARDSON

IT'S planting time, and excitement is high for a breakthrough specialty oilseed crop called lesquerella, which — perhaps fortuitously — sounds a lot like “Cinderella” and has been dubbed the “princess of new crops.” Lesquerella has the potential to displace castor oil imports, thus benefiting multiple industries and offering a profitable alternative crop to U.S. farmers.

With its different functionality, lesquerella is a potential improvement over castor oil that brings with it new and significant uses. Technology Crops International is leading the commercialization of the crop, adding lesquerella to its portfolio of new crops on the heels of the success of cuphea last year.

Experts believe lesquerella, in development for more than 20 years, has greater commercial potential than any new U.S. crop developed recently.

“Lesquerella has huge potential, and a large number of companies are interested,” says Terry Isbell, research leader in the New Crops and Processing Technology Research Unit of the USDA's Agricultural Research Service.

Grower benefits

“This crop offers a significant opportunity for growers,” says Andrew Hebard, president and chief executive officer at Technology Crops International, the organization seeking farmers to help with the initial production of lesquerella to be planted this fall. “Lesquerella will be priced on contract and will provide growers with higher returns than are traditionally earned on commodity crops,” he adds.

A member of the mustard family, lesquerella (*Lesquerella fendleri*) is a hardy winter oilseed crop with excellent salt tolerance that grows well in arid soils of the American southwest, including Arizona, California, New Mexico and Texas. The crop blooms bright yellow and produces a small seed that provides an oil yield of 30% to 40%. It produces approximately 1,500 to 1,800 pounds of seed per acre, which translates to between 450 and 540 pounds of oil, or about a drum per acre. Yields in excess of 2,000 pounds of seed per acre are possible.

Unlike other oilseed crops, lesquerella is valued for both its oil and gum. The gum has the potential to be used as a thickener in various industrial and food products, much like xanthan gum.

“An unusual and valuable trait of lesquerella is the water-soluble gum

Key Points

- Lesquerella has the potential to displace castor oil imports.
- A winter oilseed crop with salt tolerance, it grows well in the Southwest.
- Lesquerella growers find value in the crop's oil, gum and hulls.

on the seed, which may become a major selling point,” says David Dierig, a USDA-ARS research geneticist in Maricopa, Ariz., who has been working

with lesquerella his entire career.

Even the hulls left over after the oil and gum have been removed have value. According to Dierig, the hulls contain higher-than-average protein levels of 30% to 35%, and meal from the hulls can be used as a protein supplement in livestock feed.

“The seeds don't shatter, and the crop is harvested using normal combining methods and equipment,” says Hebard. “Lesquerella is also attractive to growers because it is a winter crop

that can be grown in rotation with other food crops.”

Economic impact

According to Chemical Market Reporter, total castor oil exports from India are estimated at 165,000 to 170,000 tons per year, and castor oil derivatives at 30,000 to 35,000 tons. In mid-August, the publication listed castor oil at 43 cents per pound, and derivatives ranged from 65 cents to \$1.05. To learn more, visit www.techcrops.com, or call (877) 780-5882.



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BRIGHT FUTURE: Lesquerella blooms bright yellow and produces a small seed that provides a high oil yield of 30% to 40%.