

Hemp research delves into new varieties for new uses

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There are 52 registered hemp varieties in Canada, but only 12 are regularly used. | Michael Raine photo

Research trials underway across Canada are designed to learn more about hemp agronomy, varieties and production.

Mike Gretzinger, research manager at Farming Smarter in Lethbridge, said various research groups are focusing on different aspects of the versatile crop, which can be used for seed, fibre, cannabinoid production and potentially livestock feed.

Plots in Lethbridge include varieties used for seed, others for fibre and still others for dual-purpose production. In mid-July, the plots are markedly different depending on their planned end use.

“The essence is to split it into some of the core purposes and just check suitability,” Gretzinger said.

“The industry itself, there isn’t a huge amount of varieties that you can grow. There’s only certain ones that seed companies will allow. But one of the crazy things about hemp is just how different all those varieties are.”

Ted Haney, executive director of the Canadian Hemp Trade Alliance, said there are 52 hemp cultivars registered for use in Canada but only about 12 are regularly used.

National tests are underway on 14 cultivars across 13 sites. Five are grain types currently registered, six are dual purpose and three are cultivars not yet registered.

Trials will also examine the agronomics of the crop, which is a high user of nitrogen but a low user of other inputs. Few crop protection products are registered for hemp.

Cannabinoid production, which is derived from hemp, is expected to increase demand for the hemp and that is driving some of the other research work.

“There’s going to be a lot of development of genetics that is going to increase the cannabinoid content in the plant, while keeping the THC levels down beneath the maximum required 0.3 percent. That plant breeding is underway right now,” said Haney.

Health Canada approved the harvesting of hemp flowers and leaves, the source of cannabinoids, in 2018. About 20,000 acres of hemp were harvested for that purpose last year but not all of the resulting material was acceptable for sale due to storage issues, Haney said.

Thus, he considers this year to be the first full production year for hemp flowers and leaves destined for cannabinoid production. Haney sees this revenue stream as another use for the crop, adding to the better-developed seed/food market.

“We believe that our growth in food, while supported by the existing original product base, the real growth will be in food ingredients and part of the plant-based proteins, particularly.”

He also sees greater future potential for hemp fibre, the marketing of which has had a rocky past with limited buyers. Residue from seed production, which has been the primary hemp market, is stored, burned or worked back into the soil. Only a small amount is sold for industrial fiber.

“Fibre is coming. Nationally there will be a doubling of the fibre processing capacity. In the next year, 18 months, we’ll have twice the fibre processing capacity but we’re also increasing the size of the crop,” said Haney.