

## Money-Making Ideas To Boost Farm Income



Bish's tractor-mounted, hydraulic-powered hemp harvester cuts the stalk at ground level and conveys it to a wagon or trailer pulled alongside harvester.



Bish has adapted its loader-mounted Super Crop header to harvest standing hemp.

## They're Building Equipment To Harvest, Process Hemp

By Lorn Manthey, Contributing Editor

Bish Enterprises in Giltner, Neb., has been building specialty farm equipment since the late 1970's and has been featured in FARM SHOW many times.

Now the company is getting into the business of building hemp harvesting equipment, according to CEO Andrew Bish.

"Producers are extremely excited about the market potential for hemp, but this crop is a whole new ball game compared to corn, soybeans, wheat or cotton," Bish says. "There are many different types of hemp. Some grows tall with seeds on the top and other varieties have seeds interspersed in the stalks. There are different planting and harvesting techniques, and it's a very fluid industry."

Bish is one of a few businesses that's producing equipment to handle hemp. In 2015 they adapted their Super Crop header to harvest standing hemp. Since then they've made design improvements so the header can harvest drill crops with 7 1/2-in. spacing and row crops with up to 40-in. spacing. The header has a proprietary cutting and feeding mechanism and doesn't use a reel, which eliminates wrapping.

Bish makes a tractor-mounted hydraulic-powered single row Hemp Handler that cuts the stalk at ground level, orients it perpendicular to the ground, then conveys it to a wagon or trailer pulled beside the harvester. They're working on a multi-row harvester to handle 4 or 6 rows at a time.

Another Bish machine is the double

cutting combine header that harvests seed and fiber simultaneously. It's based on a Deere S680 combine harvester and uses an adjustable high-level platform that cuts the upper 15 to 20 in. off the plants and a lower-level sickle bar cutting system mounted under the intake housing.

A forage harvester attachment from Bish that windrows hemp stalks for retting (a process which allows for the breakdown of the hemp stalk) is designed to work with a Claas D980 Forage Harvester. The company also produces the Budd EZ, which removes the flower from the stalk after harvest.

"I feel like we're just getting started," says Bish, "and what we build in larger quantity will depend on the industry's efforts to standardize its genetic offerings. We're also working in conjunction with Formation Ag of Colorado to produce a higher capacity header."

Formation Ag currently produces 6 different models of the Clean Cut, a header that uses an over-sized draper conveyor to gently handle the cut crop. Plants move into an elevated offloading conveyor that delivers material to a truck or cart traveling alongside the harvester. Formation Ag says the machine has a large reel and conveyors to gently handle tall plants without wrapping, which damages the crop. The device mounts on loader arms and requires a 150 hp. tractor or larger.

Formation Ag also produces the Grass Hopper, a large wheeled tank that hooks



The Grass Hopper, a large wheeled tank, can be pulled behind a combine to collect plant residue. A conveyor delivers material into cart, which unloads it into a truck or trailer at edge of field.

behind a harvester to collect chaff, leaf and plant material that can be used for animal feed. It can be used with other crops to collect plant residue, weed seeds or chaff. Over-size belting moves material into the cart from the harvester. The cart unloads into a truck or trailer at the field edge.

Further processing hemp requires decorticating, which strips the softer outer bark of the plant from the inside, known as the hurd. Formation Ag produces the portable models 660 and 1536 and a larger semi-trailer model called the Genesis. On the smaller model 660 material is fed in by hand while the other models are fed by a conveyor.

Corbett Hefner, vice president of research and development at Formation Ag, says the

company plans to build and sell several decorticators in 2019 to meet the growing demand for further processing hemp. Right now Hefner says there's a huge disconnect between those who produce hemp and those who can use it, and their goal is to help bridge that gap. There are buyers available, but they need processed material and that's what Hefner says they'll help deliver.

Contact: FARM SHOW Followup, Hemp Harvest Works, 508 S D Road, Giltner, Neb. 68841 (ph 402 413-1484; www.hempharvestworks.com); or Formation Ag, 1021 U.S. Highway 285, Monte Vista, Colo. 81125 (ph 719 849-6633; www.formation-ag.com).

## Where To Get Wool Spun Into Yarn

Small flock owners with too much wool to spin by hand can send it to the Green Mountain Spinnery. The Vermont, worker-owned cooperative has been producing high-quality yarns from a wide variety of fibers for 37 years. Most of the fiber they work with is purchased from individual growers.

"We can card and spin as little as 35 lbs. of raw fleece or 20 lbs. of scoured fleece," says David Ritchie, Green Mountain Spinnery. "We will wash orders of up to 200 lbs. for the fiber owner. If the wool is washed before sending it to us, we can process up to 2,000 lbs. in an order."

The Spinnery can process most types of fiber other than longer, more lustrous wools. The equipment simply isn't designed to handle those fibers. Fibers used at the mill include alpaca, mohair, wool, Tencel (wood-based fibers), and organic cotton. Yarns produced include lightweight, worsted weight, and bulky yarns, both plied and unplied.

"We work with producers all across the

country," says Ritchie. "We can take wool to whatever level desired, from wool batt to yarn stage. If you want it woven into cloth or made into finished products, we can recommend small companies to do the job."

Ritchie notes that a lot of small woolen mills have started up around the country in recent years. That is good for small producers, he points out, as wool can be expensive to ship. However, The Spinnery is fairly unique as it is certified as an organic wool processor.

"We work with a lot of organic sheep producers who want to take some yarn to the farmers' markets where they sell their lamb," says Ritchie.

Custom processing fees can be found on The Spinnery's website. Prices include a set up fee, but otherwise depend on amounts, raw or scoured, and the desired end product. Producer wool can be blended with other fibers, dyed and natural. With so many options, it is important to call first to discuss your wool.



Photo shows wool fiber being loaded into carding machine at Green Mountain Spinnery.

"Let us know the kind of wool you have, how much you want processed and what you want done with it," says Ritchie. "If we are attending a show in your area, stop by and visit."

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The finished product, spun into yarn.