

Kit Converts Cornhead To Cut Milo, Sunflowers, And More

A new conversion kit from Kopper Kutter, LLC lets you use a cornhead to harvest crops like sorghum, sunflowers, millet, milo and more. The Alternate Rotary Rowcrop Option (ARRO) is designed to be retrofitted to existing, newer cornheads.

"Row crop headers designed for 30-in. and 36-in. soybeans haven't been updated much since the 1970's and 80's," says agricultural engineer Alan VanNahmen, Farm Buddy Co. "Milo and sorghum growers have had to settle for rebuilding old heads at a cost of \$3,000 to \$5,000. The problem is those heads were designed low in front for cutting soybeans. They are undersized for today's combines. The ARRO kit cuts just below the gathering chain, near the tops of the heads."

The old design used a stationary knife with a star-shaped cutter with 5 sickle sections. The ARRO kit consists of two 9-in. diameter discs with 27 in. of cutting edge each. Gathering chains drive sprockets mounted to the back of the blades when the units are mounted in place.

Installation is relatively easy with any production cornhead that uses 550 roller chain. Simply tilt the cornheads upright for access to row units and remove trash knives,

stalk rolls and stalk-roll shaft housing. With the kit, stalk guides are bolted in place of trash knives on some models and gear case cover plates bolted onto the front row of unit gear cases. Front deck plate spacers and chain tensioners are reinstalled and adjusted.

"It takes half an hour per row to convert the first time and less after that," he says. "The first time you have to drill pilot holes into the row unit frame and ream them out for the mounting bolts."

Once installed, the discs rotate slightly against each other with a scissors action as the stalks feed into them. A shim package is provided to adjust as needed.

"We use good steel and have yet to do any resharping with the units we've been using," says VanNahmen.

The kits sell for \$950 per row. While a grower could wait until corn harvest is complete before converting for other crops, VanNahmen suggests buying a used head.

"You can pick up a 3 to 4-year old head with worn stalk rolls and deck plates and possibly chain," he says. "Replace the chains and install the kits, and you have a header for sorghum, milo and other crops."

VanNahmen, Kyle Kopper of Kopper



Kopper Kutter kit lets you use a cornhead to harvest crops like sorghum and sunflowers. Kit consists of two 9-in. dia. chain-driven discs with sprockets mounted on back.

VanNahmen was searching for a better way to harvest cornstalks and other crops for cellulosic ethanol production. He was using a Glenvar Bale Direct system to collect leaves and cob residue, but wanted to capture more corn stalks.

"I tried different corn heads, including pulling deck plates in tight, but none gave a clean cut," he says. "With ARRO units in place, I leave only 12 in. of corn stubble and 12 to 14 in. of sorghum stubble behind."

Check out a video of the ARRO conversion kits at www.farmshow.com.

Contact: FARM SHOW Followup, Kopper Kutter LLC, 10602 State Rd. 23, Cimarron, Kansas 67835 (ph 620 855-2988; www.kopperkutter.com).

Family Farms, and Randy Burns of Custom Harvester developed the ARRO system. Kopper wanted lower machinery costs and better residue management with his corn, wheat and milo rotation. Burns was frustrated with high maintenance costs and poor performance of existing row crop headers.



Sunnybrook Welding is testing a new axial fan system to improve crop separation in rotary combines. System pressurizes rotor with a 10-blade fan that forces air into a 3-blade centrifugal fan inside rotor.

Air System Designed To Improve Combine Rotor Performance

Specialty combine parts manufacturer Sunnybrook Welding in Alberta, Canada is testing a new axial fan system to improve crop separation in rotary combines. Gerald Foster of Sunnybrook says their Axial Air Integrated Rotor (AAIR) uses air pressure to separate grain from residue, or seed from straw.

The AAIR system pressurizes the inside of the rotor with a 10-blade fan, which forces air into a 3-blade centrifugal fan inside the rotor. As the rotor turns, a steady stream of air moves into the rotor and out the sides, through adjustable louvers. Adjustable slides allow the operator to fine tune the setting to gain maximum threshability.

Foster says Sunnybrook is running tests in 2016 with a Gleaner S Series machine. The company manufactured aftermarket rotors for those combines from 2002 to 2012, so they're very familiar with them. The test rotor is being modified so it's 75 percent open to let air move from the front axial to the centrifugal fan. The machine operator changes air flow by adjusting a steel disc covering the opening.

Another modification includes cutting the end wall spool from the rotor and moving it 10 in. in from its original position. This space

allows mounting the blue blade axial fan and 3 curved steel fan vanes inside the rotor wall. Foster says they're using high quality axial fans and mounting them on a shaft that accelerates from 0 to 1,000 rpm in just two revolutions of the shaft.

Air is funneled out of the rotor by the 3 curved centrifugal blades through hollow steel channels welded to the outside of the rotor. The channels run the full length of the rotor and are capped to hold air pressure. Each channel has 6 louvers 3 in. long and 1/2 in. wide that release air through the crop mat. Each channel is adjustable to regulate air flow.

Foster says company engineers think the increased air flow can benefit a machine's output because material will flow through more evenly and grain will separate more uniformly from the residue across the full diameter and length of the rotor. Long term Foster says the goal is to reduce friction in the threshing chamber, conserve power and put more material through the machine.

Contact: FARM SHOW Followup, Sunnybrook Welding & Machine Shop Ltd., P.O. Box 28, Sunnybrook, Alberta Canada T0C 2M0 (ph 780 789-3855; www.sunnybrookwelding.com).



Timbercroc log holder holds logs off the ground while you cut them with a chainsaw. A series of hinged steel teeth with hooks at the end hold log securely in a horizontal position about 2 ft. off the ground.

Log Holder Makes Cutting Firewood Easier

The Timbercroc log holder from Ireland is designed to hold logs off the ground while you cut them with a chainsaw. Once the log is clamped in the unit's jaws you won't have to worry about damaging your chainsaw bar or chain on rocks or dirt. The unit can even be used to cut planks and pallets.

The Timbercroc measures 2 ft. wide by 4 ft. tall and weighs about 44 lbs. A series of hinged steel teeth with hooks at the end hold the log securely in a horizontal position about 2 ft. off the ground as you cut the log into chunks. The teeth quickly release the wood when you're done cutting. The teeth are of various lengths, longer at the middle than at the sides which allows the unit to hold logs of various sizes.

The unit folds flat for easy storage. It sells for about \$250 in the U.K. There's no distributor in North America yet.

The company also makes a 3-pt. mounted model for tractors. You can see a video of the Timbercroc in use at www.farmshow.com.

Contact: FARM SHOW Followup (ph 011 44 353 08687561102; www.timbercroc.com; glebefabrications@gmail.com).



Unit measures 2 ft. wide by 4 ft. tall and weighs about 44 lbs. (above). Teeth quickly release the wood when you're done cutting.

