



Chopper Stalker uses razor-sharp blades and rolling disks to cut and size corn stalks. It's designed to be used at a field speed of 8 to 10 mph.

Mechanical Stalk Chopper Saves Fuel, Works Fast

"Chopping corn stalks or other root crop stalks doesn't have to be done with a power hungry, pto-driven machine," says Drew Lloyd of DL Industries. Lloyd invented a mechanical device called the Chopper Stalker that uses razor sharp blades and rolling disks to cut and size stalks.

Lloyd says the key to the Chopper Stalker operation is maintaining a field speed of 8 to 10 mph so the rolling blades can cut, tear and churn stalks into tiny pieces. Most pto-driven stalk choppers travel at 3 to 4 mph, so the Chopper Stalker has the potential to cover twice as much acreage.

Lloyd says he designed the machine with strip-till farmers in mind, people who want to cut and size their stalks, but not work up all the ground between the rows. The parallel linkage for each row unit is mounted on a rugged 6 by 6-in. rigid main frame. The Chopper Stalker hooks to a tractor with a 3-pt. hitch. Gauge wheels 18 in. from each end of the frame maintain the cutting depth.

Each row unit is a "gang", which includes a 12-in. wide cutting reel in front with ultra-sharp blades. The reel is followed by two

rolling disks angled to a "V". Each disk has 12 sharpened metal cutting blades on the outside. Blades on the reel and the disks are replaceable. Two springs on each row unit and parallel linkage provide consistent down pressure and allow the disks to travel up and over rocks without damaging the machine. A rolling basket at the back of each gang breaks up soil clumps and smoothes the surface so moisture can penetrate evenly into the soil.

Lloyd used sealed bearings on the blade reels, disks and rolling baskets to provide long life and dependable service. The Chopper Stalker can be set to any common row crop width from 20 in. to 40 in. It's available in 16-ft. and 20-ft. solid bar frames and folding frame models up to 40 ft. wide.

"We've had real good response to this machine in corn stalks and cotton ground," Lloyd says. "It doesn't pull nearly as hard as a pto machine and it does just as nice a job cutting up stalks and residue."

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Lessons Learned From An Air Compressor Explosion

James Kelley does what many FARM SHOW readers do – take a piece of equipment and modify it. He recently learned you have to be very careful if that piece of equipment is an air compressor.

At 5:53 a.m. one January morning Kelley heard a "sonic boom". Later, returning from morning coffee with friends, he discovered the source of the noise when he noticed a hole ripped through the steel metal siding on his farm shop. All the windows were blown out, welding helmet view lenses blown to pieces, tools destroyed, metal posts and braces bent, and there was debris everywhere.

The volume tank he had added to his 42-gal. air compressor had blown up.

"The cause for the explosion was not having a popoff valve and not having a magnetic starter on the tank," Kelley says. He explains that he had put a new motor on the air compressor and didn't realize that 5 hp and larger motors carry 22 amps, and that ordinary pressure switch points wouldn't be able to handle that. The higher amps require a magnetic contact on the starter.

It appears that the points on the pressure switch melted down so the compressor didn't shut down, blowing the tank. The air compressor gauge was frozen at 600 psi after the explosion.

Though he had repairs to make and a mess to clean up, Kelley felt very fortunate. Just the



James Kelley woke up one morning to find a hole ripped through the sheet metal siding on his farm shop. It was caused by an air compressor explosion.

night before he had been painting framework on a ladder right over the tank that blew up.

He fixed up the unharmed compressor, but this time he eliminated the second tank and invested \$185 in a magnetic starter, a new pressure switch and a pop-off valve as a safety release.

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Motorized Deer "Scarer"

Mark Hamilton has kept deer out of his garden for the past two and a half years, with his homemade deer "scarer". He wrote about the idea at his website, Backyarddeer.com, where readers share ideas for dealing with pest deer.

"Deer quickly figure out if a deterrent is no real threat," says Hamilton. "Once they get used to a sound or movement, they ignore it. We space our deterrents out around our two-acre garden."

To keep deer from ignoring his deterrent, Hamilton designed it so the sound pattern constantly varies. He also created a two-stage sound pattern, with an initial sound to get the deer's attention and a second louder one to startle it.

The device consists of a golf ball on the end of a light chain or nylon cord (Hamilton has used both). The chain is attached to a wire that's fastened to a rotating drive arm.

The ball first strikes a sheet of tin with a vibrating sound. It's then dragged up and over the tin and swings with renewed momentum into a stainless steel pan creating a metallic ringing sound.

The entire apparatus mounts on a steel post. A board attached midway up the post is the mounting point for the tin sheet. A 2 by 4 attached to the top 10 to 12 in. of the post serves as the base for a length of 1 by 6-in. board that extends perpendicular to the post.

A length of pvc pipe is attached to the far end of the board. A piece of 12-ga., high tensile wire wrapped around the pipe and through a hole in the end supports the stainless steel pan.

A small AC motor attached to the underside of the end of the board rotates a length of wire. The chain/cord hangs from the wire.

"You have to experiment with the lengths of wire and chain and even the length of the pipe to get the right distances," says Hamilton. "You want the ball to swing just right, so it hits the sweet spot on the pan."



Rotating drive arm causes golf ball to strike a sheet of tin and make a vibrating sound. Then ball swings into a stainless steel pan, creating a metallic ringing sound.

Although he used a golf ball, Hamilton stresses that other objects can also be used. He has also worked with multiple motors to power the ball. Initially he used small advertising display motors he had been given. However, they quickly burned out under constant use. He then tried a barbecue grill rotisserie motor, but it failed when it rotated out.

"I picked up a small AC motor and found an adapter that stepped it down from 120 to 10 volts, which slows the ball down to about 1/4 rpm," says Hamilton. "It wasn't promoted as being waterproof, but I haven't had a problem, even in wet weather."

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Anyone wanting to roll fields behind their drill can get help from Adelmeyer Welding, which fabricates heavy duty hitches to match drill frames.

Heavy-Duty Drill Hitch Ideal For Roller

Farmers wanting to roll fields behind their drills can get help from Adelmeyer Welding Services. Robert (Fuzzy) Adelmeyer and his dad, Robert Sr., fabricate heavy-duty hitches to match drill frames.

"The hitch is designed to match the height of the drill frame," explains the younger Adelmeyer. "We just did one where we had to drop the hitch height a couple of feet from the drill frame. The main beam on the drill was about 4 ft. off the ground, and the owner wanted the hitch at 20 in."

While the design may change, the heavy-duty nature stays the same. All members are made with 1/4-in. thick steel except for the actual hitch plate, which is 3/4-in. A 4-ft. long, 4 by 4 or 4 by 8-in. channel iron beam (depending on the drill) extends perpendicular from the main support beam on the drill to a vertical faceplate where the hitch plate mounts. The faceplate varies in length

depending on how much drop is needed.

Gussets reinforce the joint between the beam and faceplate, while 2 by 4 or 4 by 4-in. channel irons angle back from the sides of the drill's rear cross frame to reinforce the faceplate at the hitch. A fourth channel iron beam adds vertical support over the hitch's main beam from the top of the faceplate to an upper cross member on the drill.

"We do whatever is needed to stiffen and reinforce the hitch," says Adelmeyer. "All the connecting members end in flanges so the hitch can be unbolted as needed."

Hitches vary in cost from \$700 to \$1,000, depending on the drill and modifications needed. A recent job where the customer provided all the steel came in at only \$440.

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