



Hand-cranked "Double Tumble" mixer, left, is available in sizes from 5 to 55 gal. Feedlot size mixer, right, works on the same principle, tossing material from end to end as barrel-shaped body, mounted at an offset angle, rotates.

"WORKS FOUR TIMES FASTER THAN OTHER MIXERS AND DOES A BETTER JOB"

"Double Tumble" Mixer

If you're tired of stirring feed premixes with a stick in a pail or dumping them back and forth from pail to pail, you'll want to check out this new "double tumble" drum mixer manufactured by Gordon Dorn, Denver, Iowa, who's also developed a prototype feedlot-sized TMR mixer using the same design.

The new mixer consists of a barrel mounted inside a steel frame. You place

feed or whatever you want to mix into the drum, then lock the lid and turn the handle four revolutions in each direction. The barrel rotates 360 degrees on a steel shaft mounted at an angle through the inside of the drum, tumbling up and down from end to end. After you're done mixing you simply point the top of the barrel downward to unload the feed.

"It works four times faster than other mixers and does a much better job because of the double tumble action. The feed is spun around and also thrown from one end of the barrel to the other," says Dorn. "Every time the barrel turns 360 degrees, feed is displaced four times. The entire mixing action takes only 15 seconds. It thoroughly mixes all types of ingredients, no matter how different they are in weight or density. For example, it'll completely mix soybean meal with long stemmed chopped hay. Another advantage is that there are no augers or baffles to damage grass seed. There's only one moving part so there's almost no maintenance."

Available in 30 and 55-gal. capacities and can be custom built to any size. Depending on the bulk of your ingredients, the 30-gal. model holds about 75 lbs. and the 55-gal. holds about 150 lbs. "We don't recommend filling the drum more than 1/2 to 2/3 full in order for feed to be completely mixed," notes Dorn, adding that the mixer frame can be easily taken apart to fit through narrow doorways.

The 30-gal. drum sells for \$200 and the 55-gal. drum for \$225. A spring-loaded door built into the lid is optional and sells for \$25. Inside epoxy paint is a \$25 option.

A large hydraulically-operated, trailer-mounted mixer equipped with about a 300-gal. tank and a load-out auger is also available. The first large tank Dorn built was for mixing different varieties of grass seed. "It's the ideal feedlot-size TMR mixer because of the quick-mixing ability on any type of feed ingredient and low maintenance," he says.

For more information, contact: FARM SHOW Followup, Gordon Dorn, Tumble Drum Ind., Rt. 1, Box 302, Denver, Iowa 50622 (ph 319 984-5374).



Flitter removed the shovels from each cultivator gang, replacing them with one 18-in. disc blade per row.

WORKS FASTER, BETTER

"Spin Blade" Cultivator

"My 'spin blade' cultivator lets me cultivate at speeds up to 12 mph without plugging up and requires very little maintenance," says Lowell Flitter, Lewisville, Minn., who built his disk blade cultivator on the frame of his old Deere RG4 6-row, 30-in. cultivator.

Flitter removed all the shovels and cut 2 ft. off the back end of each cultivator gang. He mounted 18-in. dia. Allis-Chalmers disk blades on the four inside gangs and 12-in. dia. discs on each outside gang. Blade height is individually controlled by gauge wheels, and the angle of each blade is controlled by adjusting a screw on the steel mounting bracket that supports each blade.

"It cost less than \$150 in materials to build per row," says Flitter, who has used the cultivator for two years. "I built it because I got tired of constantly adjusting all the shovels on the old cultivator. My spin blade cultivator has only one blade per row and they require very little adjustment. Each blade fills up most of the space between the rows so weeds can't escape. The blades' outside edges are only 6 in. from my 30-in. rows. The smaller blades on the two outside gangs work great for guess rows."

"The spinning blades don't slab or throw dirt so I can cultivate the first time through the field at 5 to 6 mph compared to 3 to 4 mph for a conventional cultivator. I've cultivated in seventh gear and even tried going in road gear on the second cultivation, but my Deere 3020 tractor didn't have enough power. The weedier it is, the more the blades spin which helps keep their leading edges clean and trash flowing through. I haven't plugged up once yet. I can cultivate with the blades 6 to 7 in. deep, but I normally set them 1 1/2 to 2 in. deep. The blades self-sharpen as they spin and after about 500 acres are still sharp with only about 1/4 in. of wear."

"I looked at the Eversman spin sweep cultivator before I came up with my own modified design. The main difference is that I mounted the blades on the cultivator's parallel linkage instead of the toolbar. It works good on uneven ground because the parallel linkage helps the blades compensate for dead furrows and bounce over rocks. Using one large blade per row works better than having several blades between rows because trash flows through better and there are fewer parts to maintain. I think the same



Blade mounts on "spindle", made out of steel tubing, that turns inside a larger piece of pipe which acts as a greasable "bearing".

idea would work to convert any rear-mount cultivator."

Flitter bought the disk blades for \$6 apiece from a machinery dealer who had gone out of business. He used thick wall steel tubing to make a spindle that rides inside a 6-in. long "bearing" (also made from thick wall steel tubing). A 1 1/4-in. drawbolt runs through the spindle and is secured to the top of the bearing by a nut and large washer. A washer is welded to the bottom of the spindle just above the blade, while another washer is welded to the bottom of the drawbolt underneath the blade. The disk spindle bolts to two small steel plates that attach to the cultivator parallel linkage. The screw to adjust blade angle is mounted on the steel plates.

"The leading edge of each blade must be pointed downward in order to keep the blade from riding on top of the ground," says Flitter. "To set the blades at the right angle I place a 3/4-in. thick plywood board under the rear edge of each blade, then lower the cultivator until the front edge of each blade touches the floor of my machine shed. Then I adjust the screws until all the blades are at the same angle."

"I used the cultivator's original shields because I was in a hurry to get to the field. However, I plan to replace them with tunnel shields because they're stronger," notes Flitter, who mounted a grease zerk on each bearing.

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