## Sunflower Attachment Harvests Corn

"Works great," says Larry Cole, South Dakota corn grower who figured out an inexpensive way to harvest corn with his pull type combine without buying an expensive corn head. "There isn't any corn head attachment for 914 International pull type combines, the kind I own," he points out. "However, if they did make one, it would probably cost \$6,000 or more to buy." says Larry, who solved the problem by equipping his pull type combine with a set of Zach sunflower pans which he bought used for \$200.

Charles Heimark, Sr., president of General Dryer Corp., Clarkfield, Minn., says several farmer-owners of his company's Headsnatcher sunflower harvesting attachment have used it successfully to harvest corn. He points out, however, that his company hasn't done any indepth investigation of this application for the Headsnatcher: "Here in Western Minnesota.

corn belt and ear height varies quite a bit. Consequently, corn growers would have to make sure they're operating the attachment low enough to get underneath all the ears. This would mean putting a lot of extra stalks through the machine," Heimark told FARM SHOW. "If I were to harvest corn with our Headsnatcher mounted on our 750 Massey Ferguson combine. I'd remove the Headsnatcher bumper and raise the reel about one foot and give it a try. I believe I'd have better results if I had one of the new International Harvester rotary axial flow combines which I saw last fall working in sunflowers," Heimark points

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For more details, contact: FARM SHOW Followup, Charles Heimark, Sr., president, General Dryer Corporation, Clarkfield, Minn. 56223 (ph 612 669-7322).



"Sky Hook" Moves Irrigation Pipe

A new method of moving cumbersome, self-driven irrigation pipe over power lines, fences, rivers, ditches or whatever is catching on with Eastern Oregon farmers.

Developed by Rambling Rotors, a commercial helicopter operation in LaGrande, Or., the technique calls for the pilot to hover the aircraft a few feet above two sections of pipe while his ground crew places specially designed hooks on to the pipe. The helicopter (in this case, a Bell Jet Ranger) then lifts the pipe straight off the ground and deposits it at the new site.

Distance is no problem. Sections making up a ¼ mile pipeline can be moved several miles away in only 45 min.

Heavy driving mechanisms can also be slung underneath the helicopter and safely transported to a new location.

"Smoothness of the operation depends on speed and efficiency of the ground crew," William Knight, president of Rambling Rotors, told FARM SHOW. "We have also helped install cages on grain elevators, and have a possible job of moving some grain bins coming up in the future. Cost to the farmer is at an hourly rate. If a job is large enough, we'll go most anywhere."

For more details, contact: FARM SHOW Followup, Rambling Rotors, Box 2744, LaGrande, Or. 97850 (ph 503 963-5644).

## He's Moving The Corn Belt North

Most corn grown in the Red River Valley along the Minnesota-North Dakota border is in the 85-day maturity range, which is about all the growing season that far north can handle. But at least one farmer in the area — Hiram "Hi" Drache, Baker, Minn. — is moving the corn belt north. He's successfully growing 120-day corn in 85-day corn country.

If his name rings a bell, it's because Hi is a well-known college professor, noted speaker and author of three popular books on midwestern farming. He's also an innovative farmercattle feeder who thinks his new idea for making corn silage is a good one.

He plants a late-season, 120 day hybrid, knowing it will freeze just as ear set is taking place. He says the practice gives him almost twice the digestible protein, and a crop that can be chopped in November or December when silo space becomes available.

Drache stumbled onto the idea in 1975 when much of the Red River Valley flooded out in June and he lost 300 acres of corn. He replanted in July, hoping to get feed of any kind. When he chopped the "earless" corn in late November, he found it had 30% more digestible protein than did some early-May planted corn that didn't flood out.

Explains Drache: "The tonnage wasn't much — only 2.66 tons/acre. But, by leaving it in the field until late November and early December, it was only 28% moisture and carried an amazingly high percentage of digestible protein. Balanced with alfalfa haylage, it fed great."

Nutritional results from that first experiment, and the fact that several of his neighbors had been chopping corn in midwinter since 1964, convinced Drache he could make some changes in his corn silage program.

In 1976, he planted 250 acres of 113-day corn that was 400 miles north of its adapted maturity area. Drache chopped it in mid-winter when moisture content had dropped to 40% or lower. Feeding value of the cornlage tested 6.5% digestible protein, about double the value of conventional corn silage in his area. TDN measured 64% and dry matter yields averaged right at 6000 lbs. per acre. All this in a growing season which received only 4.4 in. of rain from April 14 to Oct. 13.

"Although this was one of our driest years in recent history, this crop produced 3840 lbs. of TDN per acre. Put a 5 cent/lb. TDN value against it and we were working with a \$192/acre crop value. In view of our dry season that year, that was a mighty acceptable performance," states Drache.

Last year, Drache tried a new 120-day variety, thinking the additional five to seven days maturity would allow him to pump out still more nutrient value per acre. Unfortunately, his area was hit by a heavy blizzard in November and he lost much of the crop. But he's not worried. Weather records for the area show that in 19 out of 20 years, there is no major weather hazard before the year's end. Drache thinks those are pretty good odds and he's back at it again this year with a 120-day variety. "We want just one thing from our corn, and that's maximum feeding value per acre. We're convinced that this switch to longer maturity hybrids is the way to get it."

Drache notes that "we cut as fine as we can with our chopper. then recut it through our hammermill feed processor. It comes out practically like oatmeal - so fine that it's like instant digestibility once it hits the rumen. We also add some water back into the silage as it's being recut. We feed the cornlage 50-50 with haylage, plus minerals. During cold weather, we add 2 lbs. per head daily of rolled corn for added energy. Otherwise, this 50-50 mixture works great."

Dean Gresham, of Moorhead, Minn., a nutritional management consultant who does work for Drache and his partner, Ronald Offutt, points out that from a nutrition standpoint. corn is at its maximum nutrient value just as the corn plant initiates ear growth. "Just as the early bud stage is the ideal period for fixing maximum nutrient values for alfalfa, the same is true for corn." Gresham contends. "However, it would be ridiculous to ensile corn at this stage - it's still virtually 90% water. So, you either plant normal maturity hybrids late, and let frost get them at this ear set stage - which is chance and poor economics. Or, you go one step further - plant in early May as you usually do, but plant a late season hybrid that doesn't stand a chance of maturing before normal frost. In essence, by going this route you're building a bigger food factory out there in your corn fields."

Gresham concedes that there is some loss in TDN when frost kills corn just as ear set is taking place. "But that's compensated for with higher levels of digestible protein and carbohydrates."