HIGH-CAPACITY FLAT STORAGE

Portable Grain "Bunker" Stores Grain For 15¢/Bu.

"It took just 1½ days to put it up using our own crew," says George Dunn, elevator manager in Morgan, Minn., who erected one of the first "Bunker" grain silos developed by Geoponics, Inc., Morton, Minn.

The new high-capacity "portable" grain storage system is built with individual 8-ft. long by 6-ft. high freestanding wall sections that are designed to interlock without any ground anchoring. When the system is needed elsewhere, it can be easily moved. What's more, the Bunker portable grain system features full aeration, making it possible to monitor and adjust temperature of stored grain.

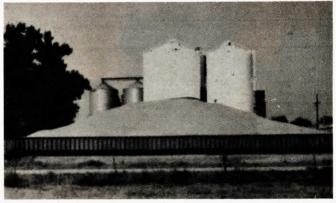
"Even with full aeration and a heavy-duty polyethylene tarp, it costs just 15 cents per bushel for a 300,000 bu. system," says John Baumgartner, Geoponics executive vice president. "For individual farmers, we offer Bunkers with 5,000 bu. capacity and up. Because of the flexiblity, you can simply add on more bunker sections to expand as needed."

The Bunker sections line up endto-end with only a couple inches overlap. A small metal plate that bolts across the top edge between every two sections is all that's needed to hold them together. Downward pressure of grain on the sections' sloping bottoms holds them in place and keeps them from sliding.

"Some flat storage systems lose a lot of grain to spoilage. Because of the first-class aeration in this system, we've had virtually no grain loss," says Baumgartner.

Bunker sections are made with treated wood that, Baumgartner says, will last 10 to 15 years. To unload, one or two sections of a wall are removed. Should any part of the structure become damaged, it's a simple matter to slip in new sections. In addition to grain, the Bunker silo can also be used for fertilizer and other bulk commodities. It can be installed on a hard-packed ground surface, or on an asphalt or concrete base.

To fill the Bunker, Geoponics recommends its high-capacity "Grain Slinger", which throws grain rather



Aeration tubes (12 in. dia.) spaced on 16 in. centers span the bottom of the system. Six inch tubes (12 in. centers) run across top of the pile.

than augering it. The company's first model throws up to 7,000 bu. per hour.

Costs range from about 19° per bu. for a 5,000-bu. system to about 10° per bu. for a 1,000,000 bu. system. "Permanent storage with fans and aeration can cost up to \$1.50 per bushel." notes Baumgartner.

For more information, contact: FARM SHOW Followup, Geoponics, Inc., Box 398, Morton, Minn. 56270 (ph 507 697-6331).

Downward pressure of grain on each section's sloping bottom holds them in place.



"FASTER AND MORE EFFICIENT THAN CONVENTIONAL AUGERS"

New "Slinger" Throws Grain Into Storage

"It's the perfect machine for low-cost, high-volume grain handling in flat storage," says John Baumgartner of Geoponics, Inc., manufacturer of a new grain slinger that'll throw up to 7,000 bu. per hour into storage.

The heavy-built, electric-powered Slinger is equippped with rubber-coated, metal paddles that spin at high speed, tossing grain out in an arc that'll make a pile up to 40-ft. high and 200 ft. in dia. The grain Slinger is faster than conventional augers, gentler on the seed, and it makes a smooth-topped grain pile that requires less labor to handle in flat storage, according to the company.

"The front throat of the Slinger moves 30° up and down and from side to side so you can pile up a tremendous amount of grain from one spot. Grain augers must be moved continuously and they can't match the job this machine does," says Baumgartner.

A large 12-ft. auger, 12 in. in dia., feeds grain to the throwing paddles on the Slinger. Powered by a 5-hp. electric motor, the auger drops grain onto a short conveyor belt that spins at the same speed as the paddles right above it. Because the paddles and belt spin at the same speed, there's no friction between the two that could damage the grain, which is simply knocked off the belt by the paddles as fast as the auger can deliver it.

"The Slinger throwing mechanism has been used extensively for handling steel pellets, fertilizer and other materials but, so far as we know, this is the first practical grain thrower on the market in North America," says Baumgartner, noting that FARM SHOW recently featured the only other commercial grain slinger, a model made in Australia, in its Vol. 7, No. 6 issue.

The Slinger paddles toss grain at

velocities up to 60 mph., powered by a 15-hp electric motor. One advantage of the self-contained unit is that no tractor is needed to power it. It can also be used for throwing grain inside a building, or into any other form of flat storage.

The company's first prototype was in use last year at local grain elevators. A 7,000 bu. per hour model, which sells for \$10,000, is now in production. The company hopes to soon offer a smaller, farmsized model.

For more information, contact: FARM SHOW Followup, Geoponics, Inc., Box 398, Morton, Minn. 56270 (ph 507 697-6331).



"Slinger" will throw grain into a pile up to 40 ft. high and 200 ft. in dia. It's powered by a 5 hp electric motor.