

Ferrari Tractor CIE

"Appropriate Technology for Agriculture"

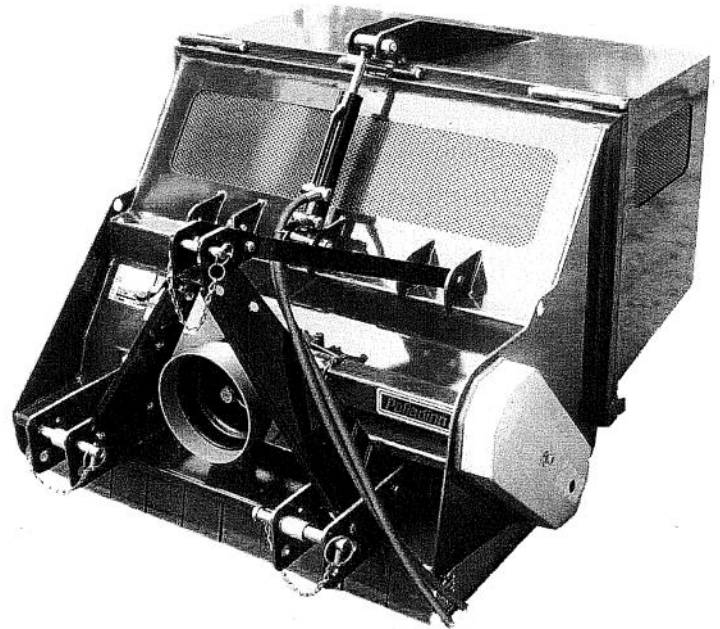
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Grain Harvesting Options

No small grain combines exist at a low enough price to meet needs of some very small scale grain producers thus requiring grain harvest to be a three stage process—cutting and bundling by hand and carrying bundles to thresher, a very labor intensive option. Using specialized reaper/binder costing \$13,500 or more and then using a stationary thresher costing between \$8,000 and \$12,500 is still too expensive for many operators.

There are alternatives for those willing to improvise. One system that avoids tying bundles, uses a flail mower/collector. This mower uses a reverse rotation flail rotor to cut and shred what it cuts and retains it in a metal hopper. Periodically you would actuate hydraulic cylinder to dump contents onto a tarp or into a tank. The rotary action of the flails knives will have freed much of the grain that can then be winnowed out of the chaff. Grain still adhering to stems can be screened out to be ready to thresh. Because so much of straw and chaff need not go through threshing process, it makes the job easier and faster. A 40 inch wide mower/collector takes only 20 HP and costs \$6,000. Many larger models are also available.



Another option is to use a hay mower called a disc mower that cuts and windrows plants (grain in this case) in one pass. In this approach you could add simple catcher made of canvas or sheet metal so that windrowed grain would not be on ground and could easily be picked up and taken to a stationary thresher periodically. A drum mower cutting 4.5 foot wide swath needs 20 HP and costs \$4,500 plus costs of canvas tarps or sheet metal "sled".

These approaches have added advantages of allowing wider variety of seed crops to be easily collected and very importantly these machines remain available to you for their traditional uses such as collecting cover crops to make compost or making hay.