

Selecting the right equipment for grain production

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Organic Growers' Research and
Information-Sharing Network

OGRIN

A hard-learned truth about equipment needed for grain production

- Commercial growers at all scales need a combine or reaper/binder and thresher to harvest the grain



Kit and Cathy Kelley,
Washingtonville, PA,
with AC 60

Without a combine: desperate measures

- Have a neighbor combine (risky)
- Improvise







Without a combine: desperate measures

→ Better off not planting grain until you have a viable harvesting plan in place.

Other very useful/essential equipment/infrastructure

- Grain drying plan*
- Storage (short- and long-term) plan that will keep grain cool and dry, avoid insect and rodent infestations*
- Grain cleaner: air-screen cleaner * (if selling retail)
- Grain drill

(Much needed equipment/infrastructure can be bought used or made—remember to use food-grade materials)

A caveat about equipment

- Having all the equipment in the world won't help if operations aren't timely, especially true for the small grains (think of as tomatoes)
 - Timely planting
 - Timely harvest

Small-scale planting options on farm

- Very small amounts of seed (1-5 g): well-prepared seed bed, hoe, rake, planting board
- As seed amount increases (always starting with a well-prepared seed bed)
 - Broadcast by hand or with spin seeder, incorporate with rake, rototiller set at shallowest depth, or harrow (increase seeding rate)
 - Use drill to make furrows, plant with single-row planter or by hand, roll or cultipack
 - Use drill with a section blocked off to adequately concentrate seed; roll or cultipack



Seed increase at Lineage Farm, Hudson, NY: A pound each of heritage wheat varieties planted in 200 x 3.5 ft strips using a home-made tractor-mounted furrow maker, Jang single-row planter, roller.

Build your own small-scale seeder



Rg Bell, Kendall, NY
with drop seeder
(Northern Tool and
Equipment)



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- **With 25 or more pounds of seed, use drill**

A bit more about planting

- Common problems: low plant population, skips, clumped seed.
 - Drill in poor condition
 - Hulled seed (awns, hull size)
- To reduce risk of poor crop stands, broadcasting may be better alternative