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National Center for Appropriate Technology

Pressman, Andy. 2011. **Equipment and Tools for Small-Scale Intensive Crop Production**. ATTRA Publication IP417.

Bachmann, Janet. 2009. **Market Gardening: A Start Up Guide**. ATTRA Publication IP195.

www.attra.ncat.org

Table 1. Estimated equipment needs for various sizes of vegetable farms.

Scale	Seed starting	Power source and tillage	Direct seeding	Equipment	Cultivation	Harvesting	Post-harvest handling	Delivery
0-3 acres	small hoop house, grow lights, planting trays	rototiller or walking tractor, custom work	Earthway, Jang, or other direct seeder	Back-pack, sprayer, irrigation, tools	Wheel hoe, hand hoes, digging forks, spades	Field knives, hand boxes, buckets, carts	Bulk tank, canopy, packing containers	Everyday vehicle, Pickup truck (with topper) or van
4-6 acres	1,000 sq. ft., greenhouse, cold frames, field tunnels, planting trays	35-40 hp tractor, with creeper gear, power steering, high clearance	Planet Jr. plate seeder	1-row transplanter, irrigation, more tools	Cultivating tractor (IH Super A or IH 140)	Potato digger, bed lifter, wagon, more boxes, buckets	Roller track conveyor, hand carts, walk-in cooler	Cargo van
7-10 acres	Additional cold frames, planting trays	40-60 hp tractor, chisel plow, spader	Stanhay precision belt seeder with belts	2-row transplanter, sprayer	Tool bar implements: beet knives, basket weeder	More field crates	Barrel washer, spinner, pallet jack	1 ton truck with refrigeration
20 + acres	2,000 sq. ft. greenhouse	80 hp tractor with loader bucket and forks, compost spreader	Nibex or Monosem seeder	Irrigation, bed shaper, mulch layer	Sweeps (Besserides), Buddingh finger weeders, flame weeder, potato hiller, 2nd cultivating tractor	Asa lift, harvest wagon	Wash line, larger cooler, packing shed and loading dock	Refrigerated truck

Adapted from a Michael Fields Institute Advanced Organic Vegetable Production Workshop