Photo Gallery:
Cultivating tractors & implements for weed management, specialized tillage, & seeding
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Cultivating tractors

The cultivating tractor, at 16-30 horsepower, is designed for attaching belly or mid-mount toolbars with live hydraulics for a wide assortment of cultivating implements. Tractor engines are either off-set in the front end, allowing the tractor operator partial sightlines of bed-rows ahead or rear-mounted, allowing for a full range of vision of cultivators and vegetables in front of the tractor. Most of the fleet of cultivating tractors available to American vegetable growers were manufactured during the 1960’s to mid-1980’s. The Allis Chalmers-G (rear-mounted engine) & Farmall Cubs (off-set) were built a decade or two earlier. The 18 hp rear-engine Tuff-bilt, similar to the Allis-Chalmers G are currently custom manufactured out of a small facility in Alabama.
With the exception of Tuff-bilts or more expensive “tool-carrier” tractors manufactured in Europe such as the Mazzotti Multi 400, growers seeking a cultivating tractor need to locate used models manufactured 30-60 years ago. There are a handful of models to try to locate. Off-set or rear-engine cultivating tractor models to look for include: Kubota HC245, John Deere HC900, Ford 1710 Offset, Case 265, Farmall 140, and the letter series Farmalls (Super A, B, Super C, H, & Super M). Older models often do not have live hydraulics or 3-point hitches.
The following slides illustrate a number of used cultivating tractors on current working farms in Connecticut & Massachusetts. They demonstrate the diverse universe of tool bars, brackets, cultivating, & seed planting implements regional farmers utilize in order to more efficiently grow vegetable cash crops.
Kubota 245 w/belly mounted 3-row Buddingh basket cultivators
Kubota 245 w/toolbar for mounting cultivating implements
Ground-driven “Spyder” cultivators; they can be mounted on belly or rear-end toolbars.
Allis Chalmers G w/belly mounted basket cultivators (note: unobstructed view of crop rows for tractor operator).
Rear view of Allis Chalmers G w/3 point hitch cultivating sweeps for managing weeds in tire track area between vegetable beds.
Buddingh wire basket cultivators w/spacing gap(s) for vegetable-crop rows
Photo illustrates “precision” disturbance of white-thread-stage weeds by basket cultivators for lettuce transplants.
Spyders & sweeps mounted on toolbar (note different mount brackets).
Allis Chalmers G conversion from gas powered engine to electric  [Riverbank Farm, Roxbury, CT].
Farm manufactured frame extension bracket for Allis Chalmers G [Riverbank Farm]
Allis-G electric cultivating tractor (front tires extended to match rear tire tracks)
Ford 1710 w/7-row Buddingh basket cultivators
Ford 1710 Offset Tractor
Rear view of Ford 1710 (note: high clearance toolbar & spring-loaded sweeps for cultivating tire tracks).
Case 265 High Clearance off-set tractor w/belly mounted baskets + rear-mount flex-tine cultivators.
Front-view of Case 265 tractor (here marking beds for laying plastic mulch).
Operator’s view of basket cultivators; engine blocks left side view of direct-seeded greens... not a problem as long as operator aligns baskets to visible rows.
Operator’s view of emerging direct seeded lines of greens + shallow, close cultivation w/baskets.
Another view of the alignment of basket cultivators & emerging direct-seeded greens
Rear view of Case 265 utilizing flex tine Williams cultivator to cover broadcast oats for establishing living mulch strips between tomato beds.
International Farmall 140, popular off-set mid-mount cultivating tractor manufactured in the early 60’s.
Front-view of Farmall 140 cultivating tractor
Toolbar brackets and Spyder cultivators mounted on a Farmall 140.
18hp Tuff-bilt cultivating tractor manufactured in 2014 (note: spacing of front & rear tires set to match inside wheel tracks)
Tuff-bilt tractor & rear-mounted 18 hp gas-powered Kohler engine (Subedge Farm Farmington, CT)
Vintage Planet Junior seeder on rear toolbar
Seed drill markings on 3 row beds from Planet Jr.
Yang seeders on rear-mount toolbar
John Deere 900HC tractor [Provider Farm Salem, CT]
John Deere 900HC w/gauge wheels & cultivating sweeps mounted to rear tool bar
Unverferth 2-row Zone Builder for preparing narrow seedbeds through stubble for transplants or direct seed
Rear view of Zone Builder machine
Shank for opening soil & coulters for cutting a shallow furrow on Zone Builder machine
Direct-seeded pumpkins utilizing DZT machine strips cut into winter rye stubble
Close-up of seed furrow strip cut into winter rye stubble
Shop fabricated flame weeder. The frame & deck supports the propane tank. Absence of a deck shield lessens back draft of wind-driven flames.
Rear-view of flamer mounted w/3-point hitch.
Frame w/tabs to attach 3 point hitch to flamer
Pressure gauge & valves for liquid gas lines. Have installed & inspected by a professional.
Direct seeded salad greens following 2 cultivations w/a basket weeder [Siena Farms]
Additional resources:

- Excellent site for locating used tractors & implements: www.TractorHouse.com

- “Vegetable Farmers and their Weed-Control Machines.”
  75-minute educational video on weed cultivation and flaming equipment, featuring 9 farms in 3 Northeastern states. Produced by: Vern Grubinger, University of Vermont Extension, Mary Jane Else, University of Massachusetts Extension. With funding from: Northeast Sustainable Agriculture Research and Education (SARE), USDA. Available for purchase for $15 postpaid from the UVM Center for Sustainable Agriculture, 63 Carrigan Dr., Burlington VT 05405.

Sample view:

https://www.youtube.com/watch?v=HuEFo7-FkD0
• European links for state of the art cultivating tractors & implements: www.kress-landtechnik.de; www.steketee.com; www.mazzotti.it.

• Custom fabricated basket cultivators: www.basketweeder.com

• Michigan farm equipment dealer specializing in used cultivating tractors & implements: www.roetersfarmequipment.com

• High density seed planters: www.suttonag.com

• Tuff-bilt cultivating tractors and implements: www.tuff-bilt.com