



Tools and Equipment for Market Gardeners and Farmers

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a little bit from the world of farming, food and everything else

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PHOTOS

The following are links to photo albums on various topics. Click on the titles to get to the albums, and inside the albums you can click on the photos to make them larger.

If you have a question about any of the photos please email me and include a link to the photo in your question (I've posted so many I don't remember all of them, or where they are). If you'd like to use a photo for any public reason please let me know – I'm mostly fine with this but I like to know when my photos get used and if it's for anything commercial I would like to be compensated for the use. I don't post other people's photos here.

A Mix of Field Preparation Tools



Mowing down cover crop with a rotary brush mower. The tractor pictured is in the 30 hp range and the mower has a 4 or 5' deck. Photo taken at Foxglove Farm in BC



A basic 5' rotary brush mower. These are relatively inexpensive and will go through heavy brush and grass. They tend to leave cut material larger and to throw to one side. Photo taken at Skyline Farm in OR.



This is a heavy flail mower which will chop cover crop finely and deposit it evenly on the ground. Flails like this are heavy enough to go through thick stalks and even small orchard prunings. The tractor pictured is in the 80 hp range and the flail is 6 or 7'. Photo taken at Eatwell farm in CA



A wide flail mower showing the gangs of blades inside. These spin on a horizontal axis chopping material into small pieces. Different blade shapes are available for different applications. Photo taken at Stone Barns in NY.



The flail lays down very even clippings. Note the grass clover height in front of the tractor.



A heavy duty reciprocating spading machine turning in sod. This spader is 4' wide and mounted on a narrow 55 hp tractor. Photo taken at Sauvie Island Organics in OR.



Another version of a reciprocating spading machine. This one shows the skids on the sides for setting depth and the spades for digging. Spading machines work 6-10" deep. Photo taken at Zephyros Farm in CO.



A heavy duty rototiller showing the blades. Photo taken at Foxglove Farm in BC.





Transplanting Tools



A simple drum with a black pipe handle and chunks of pipe welded to it to mark planting spots on a prepared bed.



Having a pre marked bed speeds up hand transplanting and allows planting in a straight line which is critical for fast cultivation, or cultivation with a tractor.



A Farm Hand Cart set up with a rolling marker. The wheels of the cart mark the pathways and the wooden wheels and cross pieces mark the rows and in line spacing.



A farm built marker for an Allis Chalmers G cultivating tractor. This marker is marking out three lines to be planted and is placing horizontal marks at one foot spacing for the planters to follow.



The marks the rolling bed marker leaves behind the cultivating tractor.



This is a water wheel transplanter which is pulled by a tractor. The dibbler at the bottom makes holes for the transplants to go into. Water from the tank above is injected into each hole. Two or three people sit on the back plugging plants into the holes. This type of planter can work with plastic mulch, unlike most transplanters.



A simpler, farm built version of the water wheel transplanter.



The farm built version in use in less than ideal conditions.



Seeders



A very basic seeder showing all of the standard parts. A drive wheel in the front uses a belt to drive the metering mechanism in the hopper. That feeds seed into a tube that drops it in a small furrow opened with the furrower. A chain fills in the furrow and the press wheel in the back helps set depth, but also presses seed into the soil for better germination.



This Earthway seeder is being used to seed high density salad greens one row at a time. The rows are pre marked with a Cutipacker. Earthways use different plastic plates to meter out different sized seeds.



Another hand pushed seeder, the JP1, which uses a changeable rollers with different sized detents for different sized seeds. A chain with different changeable cogs allows it to set different spacings.



A four row seeder from Johnny's. This seeder has no press wheel so the bed needs to be rolled after seeding in a separate operation. The drive wheels are on the sides of the seeder which makes it more compact for tight spaces. Different sized detents in the axle are used to seed different sized seeds.



This high density seeder from Sutton Ag. has a single seed hopper at the top which feeds multiple furrowers through plastic tubes. Spacing, the number of rows and size of seed can be adjusted for.



The inside of the hopper shows the brushes which keep seed flowing. There is a plastic plate with holes at the bottom of the hopper which can be changed to adjust the flow rate for different sized seed.



It's common to mount seeders off the back of a tractor for larger operations. These are JD71 Flex planters with extra seed plates hanging off the front.



The back side of JD71s with the hoppers removed. This shows a set up with double rows being planted.

Cover Crop Seeding



Scott Latham at Sauvie Island Organics seeding cover crop with a belly mounted drop spreader followed by a Cultipacker.



A well used "belly grinder," also known as a bag type broadcast seeder. The crank on the left spins the disk in front. The latch on the right rear sets the seeding rate. A shoulder strap holds the bag on as the operator walks the field.



The plastic hopper type broadcast spreader on the left holds about 2 times the amount of seed as the bag type spreader on the right but basically functions the same way. It also has larger gears that will last longer than the bag type.



A grain drill. Separate seed boxes allow seeding of a grain and legume at the same time.



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Rye, vetch and fava cover crop with fava in bloom in late April at Sauvie Island Organics



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Cultivation Tools



A selection of cultivating hoes. These are all light hoes designed to cut just below the surface of the soil, removing small weeds.



An example of the swan neck hoe slicing small weeds just below the soil surface.



I try to avoid short handled tools but these two do a good job in tight quarters.



A heavy hoe for chopping large weeds, or removing sod. The handle extends through the head and is held tight with a steel wedge.



The most basic tractor cultivation tools are sweeps, which are basically V shaped knives that cut through the soil. They also tend to throw a bit of soil to the side, leaving a slight furrow in their wake.



A larger version of the sweep is a shovel, or furrower. These can be used to dig furrows, or to create hills and bury weeds.



It's common to gang lots of different types of knives, disks and other cultivating tools together on tool bars. Different tools do different things and depending on the crop one tool might work well close to the crop, or following another tool, whereas another works well to clear big sections between crops, or preceding other tools. These large frames frequently also incorporate some sort of guidance to keep them working straight on the bed.



A close up of an Alloway cultivator. This tool is very adjustable and has two disks to cut along side the crop and then knives that follow to clean up weeds that are between the rows.

Allis Chalmer Model Gs



An electric G modified by Jim Corliss, set up with a Lely tine weeder for 47th Ave Farm, Portland, OR (photo at Sauvie Island Organics, Portland, OR)



The original modified Lely frame from Sauvie Island Organics, Portland, OR.



Detail of the custom Lely frame showing mounting brackets. Sauvie Island Organics, Portland, OR



A custom Lely tine frame after welding, before holes are drilled for the brackets. Sauvie Island Organics, Portland, OR



Blind cultivating beans with a Lely tine weeder. Sauvie Island Organics, Portland, OR



A custom Lely tine frame. This electric G is set up with a kill switch on the left foot rest (not recommended). Mountain Bounty Farm, Nevada City, OR



A farm built Lely tine weeder for the G. Hearty Roots Farm, Tivoli, NY



Rear tool bar on G with sweeps set up behind wheels. The center sweep is in its storage position. Sauvie Island Organics, Portland, OR







Drip Winders



A well used, simple drip winder mounted on a garden cart with 2x4s, Sauvie Island Organics, Portland, OR



Spooling out new tape with a garden cart mounted drip winder



Drip winder on a simple stand



Detail of the crank and flange on a drip winder



Aaron Howard tying a bale of drip tape at Skyline Farm, Portland, OR



An overhand knot on a bale is used for a pulley and is tied off with a hitch on a bite which allows it be easily untied and reused



The plywood round for a drip winder. The threads of a flange are showing through the center. T nuts hold the flange in place.



The flip side of the plywood round with a flange mounted at the center.





















