

Heron Pond Farm



**The evolution of cultivation on a mixed
vegetable farm**

Rock Removal

- We started with a two-step process
- Advantages is the rocks are raked very evenly
- Picker cleans up rocks left in windrows
- Built in dump takes rock out of field and dumps on stone walls



Rock picker



- New process is a on step operation
- Rakes and picks up a 10 foot sections at a time.
- Still dumps rocks at end of rows.
- Wheel can be adjusted for smaller rocks



Raised beds worked well to create smooth level planting surface.

- Making raised beds introduces another step
- Need a side shaping tool to remake beds when cultivating

Stone burrier beds

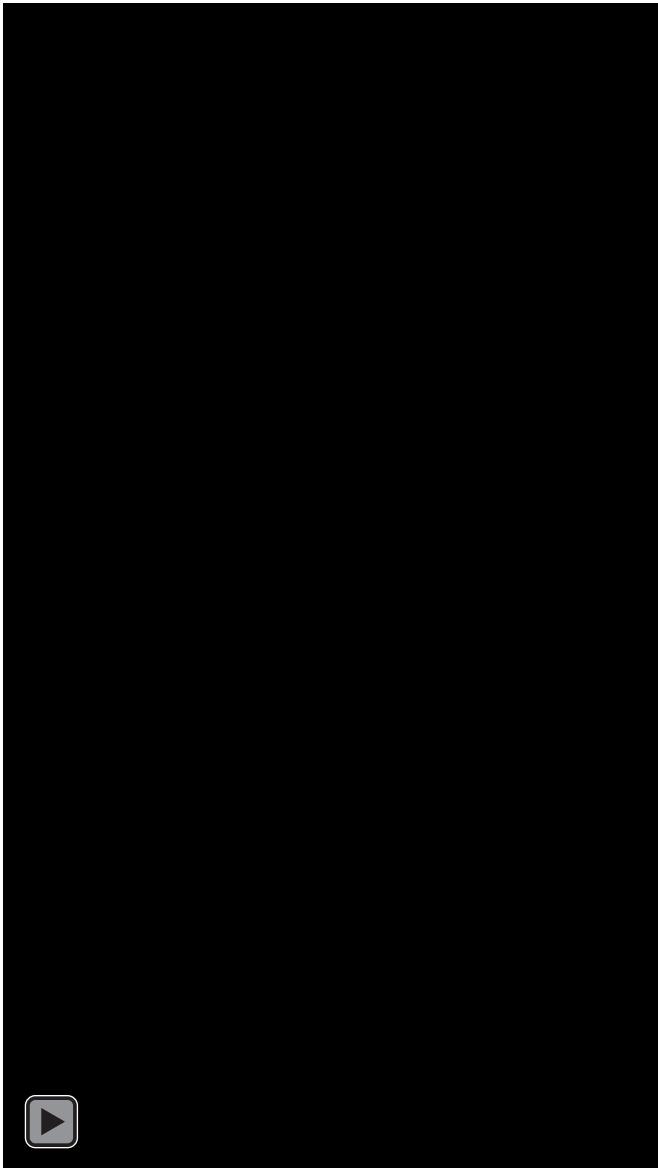
- Still need to pick rocks even when using a stone burrier
- Does allow for one pass incorporation
- Valuable tool for bed renovation
- Makes great beds for small seeded crops to be cultivated
- I have used it in high trash areas for transplant





Working stale seed beds for three weeks.

- Use of some kind of tine weeder helps with bed compaction during stale seed bedding.
- Also stirs top two inches to promote more weed germination in this zone.
- At times we irrigate stale beds to achieve weed germination.



Flame Weeding Beds

- We stale seed bed for at least three weeks
- This sometimes means Flaming more than once.
- Safety first especially in these dry years.



Weeds before and after flaming

- Weeds can form a carpet that would have been in your crop.
- Note color change post flaming of weeds on right. No need to burn them to ash, these weeds are dead.
- Try to do this just pre-emergence of crop



Wishing Stone Farms Steketee Bedder

- Can set the tension as well as depth on the “s” tines.
- Large diameter bedfirmers minimally disturb soil while providing bed firming.
- Note the shallow beet sweeps on “s” tines for shallow bed “staling.”



Reasonably priced
bedmaker from Market
Farm Implement

- This unit is from Jericho Settlers Farm.
- Straight disks break up the bed during the “staling” period to help avoid bed compaction.

Seed beds laid out

- Beds are relatively stone free.
- Nice straight beds aid with cultivation even with a steerable cultivation system.
- Flat bed tops make for generally even and level seedling emergence.



Sutton Jr. From Sutton Ag

- We used to use a Yang seeder. Cheapest way to get a good plant stand
- Sutton leave better seed bed behind
- Multiple seed configurations possible
- Hydraulic center link key in getting good seed to soil contact.






Belly Basket weeder with Williams tool tine weeder.

- Tool stacking is key to almost all our systems now.
- We try to use at least two modes of action for weed control in any one pass. Three is better
- Basket churn up weeds, tines flip them over.

We then move to a tool stacking system

- We started with a steerable unit then moved to a belly mount tractor.
- Disks, shovels, fingers, and tines can be stacked in the same tool system
- University of Michigan data on tool stacking shows an exponential effect in weed management when tools are combined.





Switching cultivation systems

When direct seeded plants get big enough, we switch to the same system we use for transplants

Two side sweeps with different action

Down cut sweep: minimal soil movement, perfect for direct seeded stuff

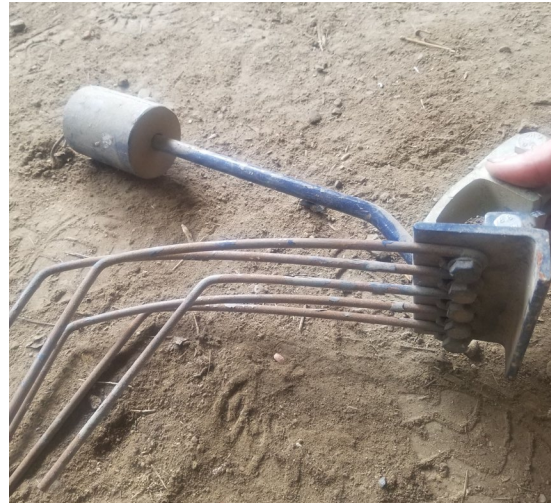


Up cut Sweep: Moves soil, will bury direct seeded stuff, lift arm is smooth so you don't pull transplants out.



Additional tools for stacking

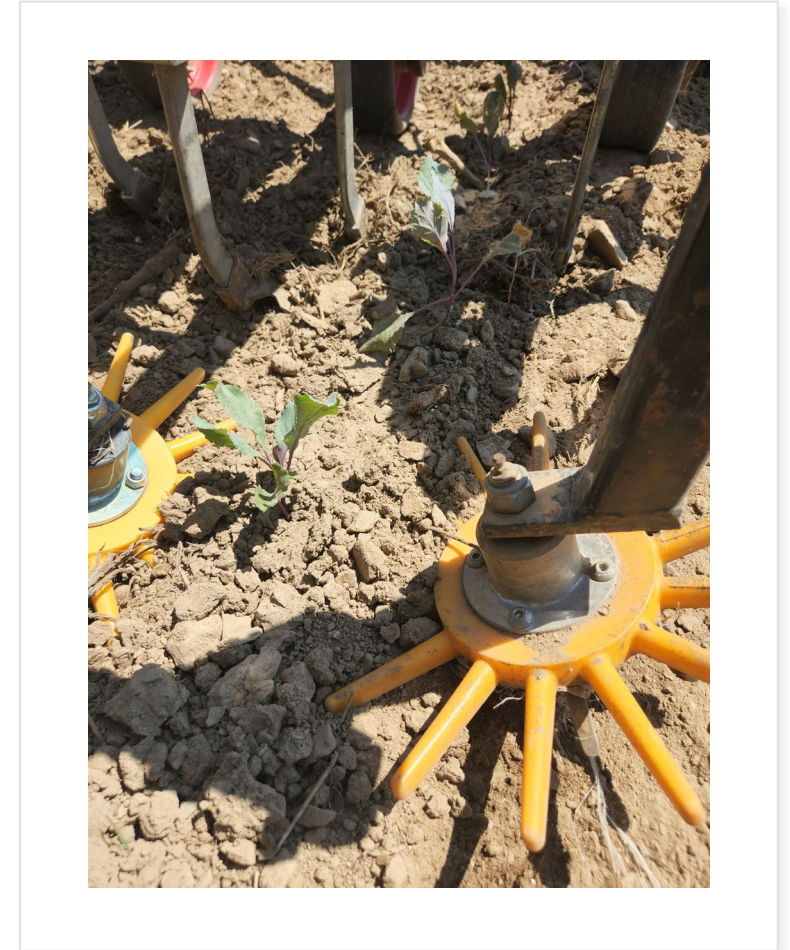
- Duo System for rock free soil types.
- Tandem System for more challenging soils
 - Allows for super close tool stacking in a short distance.
- Weighted tines
 - The further out the weight goes the more down pressure on the tines.



Transplants put in with a Checchi Magli



First pass with high visibility pression stacked tools



Shallow action of Kress sweeps

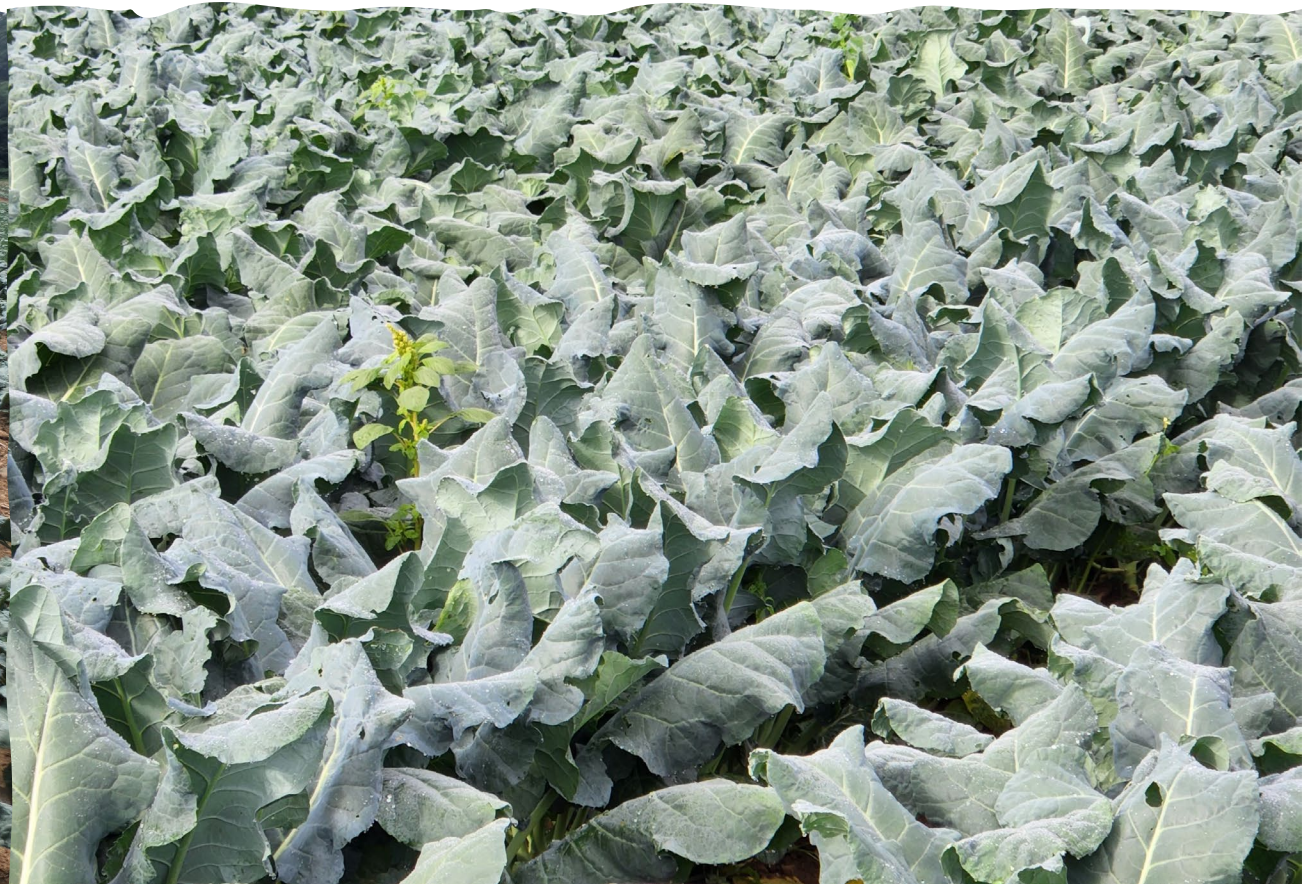




Highly effective
one pass
cultivation

Directional cultivation

- Cultivate every three days to start, then weekly
- Change direction of cultivation each time
- Rouge out missed weeds at crop closer.



Plastic needs to be laid straight and square for good weed control





Controlling weeds in the plastic zone





Contact Information

Andre Cantelmo
andre@heronpondfarm.com

603-591-8720



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