

Workshop Title:

Auto Construction

Speakers:

Isaac Villeneuve, David Greenberg

Executive Summary:

Isaac Villeneuve and David Greenberg spoke about their experiences in on-farm equipment construction and adaption. They highlighted some of the projects they have undertaken and how these adaptations have helped them be more efficient on their farms. They also described what would make up a starting toolkit for others to begin their own projects.

Main Notes:

[Isaac]

Overview:

Owner and operator of Villeneuve family farms.

Market garden is main income. Greens are his main focus.

Permanent beds system.

Has been doing Auto Construction since an early age. Do-it-yourself attitude.

Equipment used on Farm:

BCS tiller that has been modified to be a furrower for hilling carrots, planting potatoes, opening drills, etc.

Tractor has been modified to have the right wheel spacing.

Has a 3-point hitch. Was bought for \$1,500 and has been modified. It now does the job of a much more expensive tractor.

Bed shaper. Uses to prep beds in spring and fall.

Wash station.

Has built a root washer.

Designed by his grandfather. Has been carried on since.

Washes 100lbs in 15 min.

Chickens.

Egg mobile, similar style to Joe Salatin. Built out of necessity when chickens needed to go out and had no house ready. Made in one morning.

Misc.:

Some projects work, others don't. It's all a learning experience.

Cover crops.

Has moved away from them.

Has seen better results from incorporating compost.

Book from France that has blueprints for farm tools and equipment.

Guide de L'Autoconstruction - outils pour le maraichage biologique by Adabio

ITAB

[David]

Overview:

Farms near Windsor, NS.

Markets his produce through Farmers' markets, a CSA, and some wholesale.

Farm has been rapidly evolving.

Inspired by can-do attitude. Has gotten him into trouble (good trouble). Very challenging endeavour.

Starting to do Auto Construction has made him a better farmer. Knowing the terminology and parts have been helpful and empowering. He is now able to tailor his equipment to niche needs present on his farm.

Equipment and techniques:

Started spreading manure and covering with black tarps. Cultivating time has gone down drastically.

Made a trailer for spreading manure. 1,200 bedft / hour with modified cart.

0-turn mower adapted with front end. Hauls attachments behind.

Buried manure and drip line into bed to have a sponge of fertility and moisture.

Carrots with 30" row spacing. Hilling them. 2 rows on top of hill. Can get green shoulders if they are exposed so hilling is important. When doing baby carrots closer spacing makes more sense. When doing later big carrots, need to have wider spacing and be able to hill up carrots. Hilling carrots cuts down on weevil damage, fall frost damage.

Auto-construction helps to be able to make these niche tools for specific needs.

Need for this depends on soil type and variety.

'Don't solve a problem that doesn't exist.'

Sometimes a simple tool like a BCS hiller is all you need to solve the problem.

Harvesting carrots.

Broad forking doesn't cut it in his opinion unless there is a very high organic matter content.

DIY tools to be used with tractor are the way to go.

Under cutter bar is now how he does it.

Tools for Auto Construction:

Welder - Lincoln 140-flux core welder. Can be used outside and on rusty metal. Cost was \$700. Learned to weld from YouTube. Taught all interns in 20 minutes. Not a MIG welder.

Cutting torch.

Angle grinder.

Cutting disc. Pieces are very dangerous. Wear a full mask and gloves.

Set up a fan to keep air moving away from you.

Safety:

Flume plume. Do not breath it in. Can lead to major health issues.