Strategic Purchases for New Farms

Field Tested is a series of reports about farm tools that have been tested by Montana farmers to enhance their specialty crop production. The reports describe these farmers' findings to help others make informed decisions about their specialty crop businesses. Visit FarmLinkMontana.org to read more Field Tested reports. This project is administered by the Community Food & Agriculture Coalition with funding from the Montana Department of Agriculture Specialty Crop Block Grant Program.

GLACIER TILTH FARM | DIXON

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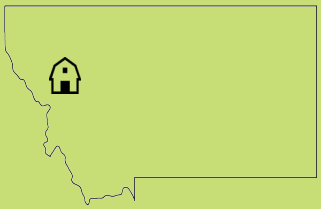
GLACIER TILTH FARM SNAPSHOT

Location: Dixon, MT

Acres in Production: 1.5

Operator(s): Anna Elbon and Matthew Whyatt

Crops: Mixed vegetables, cut flowers; culinary herbs



INTRODUCTION

Anna Elbon, along with her husband Matthew, worked on a number of farms before starting Glacier Tilth Farm in 2017. To ensure a successful first season, Anna made a few strategic purchases so she could focus on building a market and improving production efficiency. These items included: seeds for specialty crops, germination trays, fluorescent lights, and a backpack flame weeder. Anna hopes her experience with these strategic start-up purchases can help other growers think about what purchases will be most useful when starting a new farm.

Field Crops at Glacier Tilth Farm

ABOUT THE FARM

Anna and Matt lease 1.5 acres in Dixon on a property that used to be farmed by the landowner but now incubates new farm businesses. The farm included a number of tools and pieces of equipment, such as a seeder, tractor, and irrigation supplies. Anna started by focusing on two primary markets: a diversified vegetable Community Supported Agriculture (CSA) program and wholesale microgreens. Anna made strategic purchases to enhance these market channels while considering what was already available to her on the property.

MATERIALS PURCHASED

- Seeds for specialty crops ($3,398)
- Germination and seeding trays ($205)
- Fluorescent lights for indoor seed starting ($370)
- Red Dragon Backpack Flame Weeder ($293)

STRATEGIC PURCHASES FOR GLACIER TILTH FARM

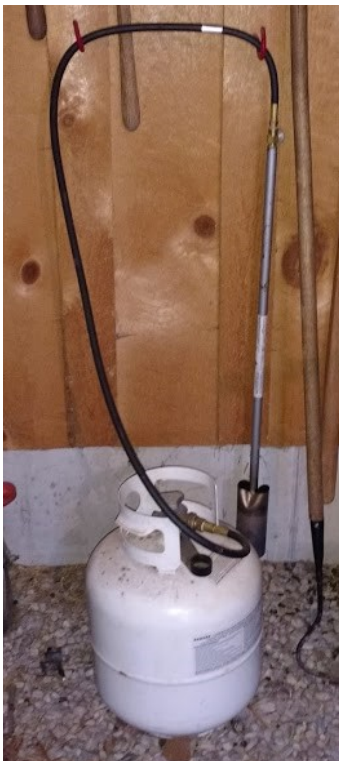
Red Dragon Backpack Flame Weeder

Anna works most of the field herself, leaving little time for hand weeding. She figured a backpack flame weeder would be a smart investment to improve labor efficiency and chose the Red Dragon Backpack Flame Weeder because it's reasonably priced at about $300.

Prior to using the flame weeder, Anna would till in a bed with too much weed competition and start over. Once she received the flame weeder, she would plant her beds then time flame weeding for a few days before germination. Using this process, Anna had very little trouble with weeds, significantly reducing the time she spent weeding.

After getting the Flame Weeder she realized that it would only accommodate a specialized 2.4-gallon propane tank in the backpack frame. These cost about $80 plus shipping and would have to be re-filled more regularly. Anna decided to abandon the backpack frame and lugged a standard 4.7-gallon tank attached to the flame weeder around the field.

The head of the Flame Weeder



The Flame Weeder attached to a 4.7 gallon propane tank

TIP

Anna waits 2-3 days after planting before flame weeding beds containing greens and 7 days for crops like carrots.

After a season of use, Anna decided she will invest in the smaller tank for future seasons. She may also invest in the The Neversink Flame in the future. The Neversink attaches to the Red Dragon backpack and requires an additional $349 investment, but it has a larger reach and can flame a 30" bed in a single pass. Anna thinks the Red Dragon is a great option for a new farmer, particularly since you can purchase upgrades to enhance the weeder's functionality as needed.

Seeding Trays for Microgreens

Another big part of Glacier Tilth's business are 3.5 oz clamshell microgreens that Anna sells to restaurants and grocery stores. Anna's microgreens business provides pea shoots and radish sprouts.

In order to grow microgreens, she purchased three essential elements: shallow seeding trays, potting mix, and seeds for the microgreens.

The shallow seeding trays are about 1" deep and have two benefits:

- They require less potting to fill them, which helps to stretch potting mix further.
- They make harvest easier than using deep trays that haven't been fully filled with soil. If you use less soil in deep trays (to stretch your mix), it's difficult to harvest greens in the corner of the trays without crushing them with scissors.

TIP

Shallow seeding trays make harvest easy and save as much as 302.5 in^3 on potting mix per tray compared with deep trays.

Fluorescent grow lights

Anna didn't get fancy with the grow lights she bought for germinating seed. You can buy lights that have particular wavelengths for sprouting, but for Anna, simple neon fluorescent lights worked just fine. The light fixtures were the most costly part, but she uses a simple wire rack to hold them. They work great for germinating her transplanted field crops.

Fluorescent lights and light fixtures attached to a wire rack used to germinate crops for transplant.

Seed for Mixed Vegetables and Microgreens

Anna's largest expense was buying seeds for her diversified vegetable CSA. She had a good sense of which varieties might do well based on previous experience, but she was able to experiment with some new varieties through this purchase.

Pea microgreens ready to harvest (left) and after 7 days (right) from Albert Lea Seed House's organic field peas.

Garlic: Anna planted several garlic varieties that she hadn't grown before, including Ukranian Purple Stripe, German Hardy, Red Toch.

Both the Ukrainian Purple Stripe and German Hardy were grown on the property for several years on before Anna started growing it. In fact, the Purple Stripe is also known as "Jane's Garlic" (among many other names) and was introduced to the US many years ago by Jane Kile, one of the original farmers of the property.

Anna was particularly excited about Red Toch, which is an artichoke type with a mild flavor, large cloves, and silver skins. It produces large heads with many cloves.

Microgreens: Anna used organic field peas from Albert Lea Seed House that take about 15 days from sowing to harvest. She also uses radish sprouts from Hong Vit radishes and take about 7-9 days to harvest.

Tomatoes: Anna planted determinate tomatoes in the field and found that the variety Medford did well.

Broccoli: Batavia broccoli grew well and Anna recommends it for climates similar to Dixon (Zone 5b).

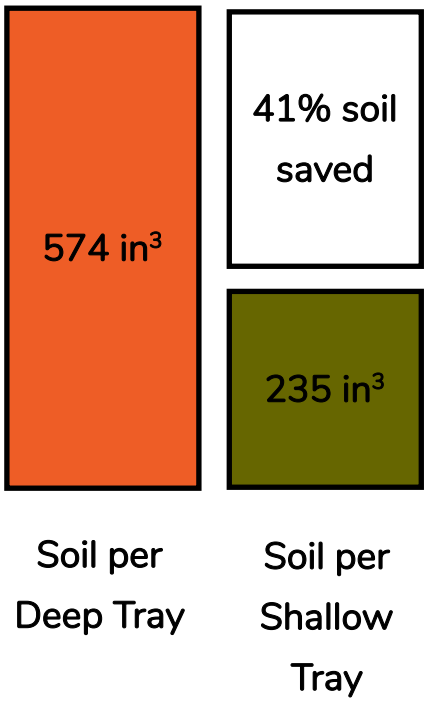
Results

Anna had a successful first season. She sold all her summer CSA shares and built a market for her microgreens. While some of the purchases will have to be made again (seeds and potting mix) some of the infrastructure for the farm has been improved for longer-term success, including lights for germination, the flame weeder, and the germination trays. Each of these investments was integral for the success of Glacier Tilth Farm. While Anna may someday invest in a larger flame weeder, she says that she would not have changed any of the investments for her first season.

ANNA'S ESTIMATED SAVINGS FROM STRATEGIC PURCHASES

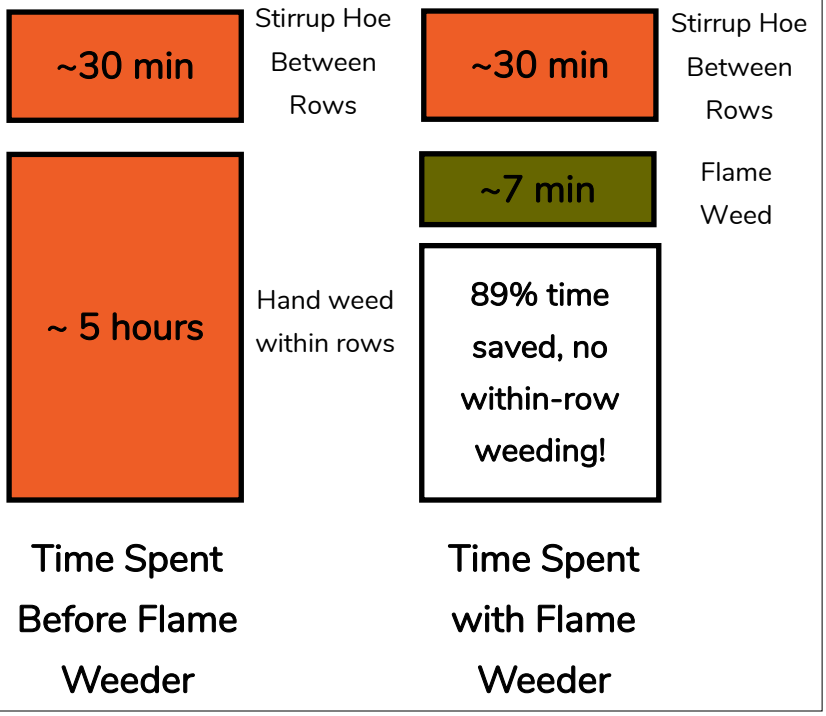
Soil Savings

Shallow vs Deep Trays



Time Savings

Weeding 100 Bed Feet of Spinach



ADDITIONAL RESOURCES

Montana Department of Agriculture Specialty Crop Block Mini-Grants: The purpose of this program is solely to enhance the competitiveness of specialty crops in Montana. Visit their website to find funding opportunities and more information: agr.mt.gov/SpecialtyCropBlockGrants

Farmhack Germination Chamber Plans: Farmhack.org/tools/sweat-box-germination-chamber

Farm Link Montana: A project of the Community Food and Agriculture Coalition to connect Montana's beginning farmers and ranchers with the tools they need to succeed: farmlinkmontana.org