

## ADAM'S BERRY FARM Charlotte, VT

Started at the Intervale in Burlington, VT in 2001 with 10 leased acres


## Deciding to move the farm



- Flooding (multiple times/year)
- Needed more land to grow the business and for healthy rotations
- Constraints of not being able to have hoop houses at the Intervale

In 2012 we purchased land in Charlotte, VT with the help of the Vermont Land Trust and the Farmland Access Program.

We embarked on relocating the farm and building new infrastructure and expanding our plantings and acreage

## Dug and relocated 5,000 mature blueberry bushes



## Established new raspberry and strawberry plantings



# Built new infrastructure: barn, hoop houses, ponds, cold storage, farmstand 



Today we operate 57 acres
We are Certified Organic and Real Organic


Diverse market outlets: wholesale, farmstand, farmers market, PYO, value added

## WHAT WE GROW:

- 3 acres of June strawberries
- 2 acres of day neutral strawberries (most of which are under low tunnels)
- 1 acre of high tunnel raspberries (mix of summer and fall)
- 1 acre of field raspberries (summer, primarily for PYO and mechanical harvest)
- 13+ acres of blueberries (26 varieties)
- 2 tunnels of blueberries (for early season harvest
- and a small and highly neglected pear orchard

During the session we will cover a variety of topics that have aided in our success in the last 21 years of growing blueberries. And how we have worked to scale up aspects of our business, increase efficiencies and reduce labor

- Scaling up: why, goals, how, investments


## Scaling up our production to meet business needs and regional market

- We had been stuck in a small farm size but with high business, labor and infrastructure needs and expenses.
- Did not want to shrink our business so we decided to expand our production to meet regional market demands and match our labor and infrastructure (maximize return on our investments)
- Expanded June and day neutral strawberries, added PYO summer raspberries, diversified farm stand offerings, doubled blueberry acreage



## WITH SCALING UP WE AIMED TO:

- Capture the early and late markets
- Be a consistent supplier to our outlets
- Have the ability to meet large volume demands - daily
- High quality, flavor focused, certified organic, real organic



## Capturing the early market: High tunnel production of blueberries

- 2 Harnois high tunnels ( $30 \times 200$ ) with early season blueberries
- 264 plants per house, 4 rows, 3 ft spacing between plants
- Varieties
- Duke
- Chanticleer

- First harvest is around June 15
- we can head to market with strawberries, blueberries and raspberries



## Pros of growing blueberries in tunnels

- 2-3 weeks earlier than field without heat
- managing house from mid march on
- Back up heat source for spring freezes
- Early local direct sales
- creates a buzz at farmer's market, generates excitement for PYO
- Planted Duke and Chanticleer for their earliness. Duke out performs dramatically
- Netted sides for bird
- Flows nicely into first field harvests - Duke, Reka, Patriot


## Cons of growing blueberries in tunnels



## Cons of growing blueberries in tunnels

- Increased pruning
- Pollination needs
- Bring in bumblebees
- Irrigation needs and attention
- Cane diseases due to humidity, heat and rapid growth
- Phomopsis and Fusicoccum cankers
- we plan to address this with better air circulation/ vents/ fans in the future
- Harvest and labor challenges during tail end of strawberries an beginning of summer raspberries
- Rabbits


## Consideration for choosing varieties

- Flavor
- Hardiness
- Yield (\$, \$\$, \$\$\$)
- Harvest timeframe (early, mid, late)
- Currently we harvest blueberries June $15^{\text {th }}$ through the end of September
- Concentrated harvest/ability to be mechanically harvested



## Modern blueberry varieties for efficiency, reduced harvest

 labor and shelf life.
## PROS:

- larger yields ( 10 +lbs/bush vs 6/lbs.)
- Faster harvest: larger size berries, structure of bush and how berries are clustered (reduced labor)
- concentrated ripening (2-3 picks)
- long shelf life and cold storage capabilities (2-4 weeks)
- machine harvestable for end of season clean up and the frozen market
- During labor crunches and heat waves where everything ripens at once



## Modern varieties we grow

- Draper
- Calypso
- Valor
- Top Shelf

We have kept our older varieties for PYO but have planted exclusively newer varieties for wholesale market
We may phase out a few varieties because they are too labor intensive to harvest and PYO customers do not like to pick them

- Hardy Blue
- Northland



## How we look at labor on the farm

- Blueberries are labor intensive!!!!
- pruning, weeding, spraying, harvesting, sorting, packing
-600+ hours to harvest 1 acre
- Ideally 3-4 picks
- Accomplished with crew of 8-12 people
- We harvest daily for at least 6 hours


## How to handle labor demands



## How to handle labor demands

- The labor demands of harvesting can detract from the needs of diversified farm and/or other projects that need to happen
- For us the weeding and maintenance of other crops is often neglected (we often talk about hiring a field maintenance crew for July and August)
- Make certain you can balance all of your crop needs and plant accordingly
- Acreage planted matches available labor
- Varietal ripening time
- Can you bring on temporary extra help (college or high school students)?
- If you do PYO, does the ripening of your varieties align with summer break?
- Match varieties to when you have labor available


## OUR CREW

- 5 H2A crew members (May- November)
- 4-5 local seasonal folks (June - mid September)
- 1-2 farmstand employees (end of Juneend of August)
- A local refugee family from Bhutan that comes for blueberry season, they bring anywhere from 3-6 people (July and August)
- Myself and Jessica



## PICK YOUR OWN AS LABOR (yes and no)

## Pick your Own is NOT a free labor source!

- Requires extra time and resources
- labor, packaging, signage, farm maintenance, people herding, crafting an experience
- Need 2-3 people to operate effectively
- Still need to harvest after as PYO customers only get $50 \%$ of a crop
- This harvest will be more time intensive harvest for your crew



## PICK YOUR OWN STATEGIES

Open PYO when there is enough berries for people to be happy. Customers want abundance. They like to see berries drip of the bushes.

Open sections, get them harvested well and close them to re ripen. If the harvest is work for customers they will grumble.

Open when there is plenty of fruit and close down when it starts to get thin so memories and experiences are positive.


## BALANCING PICK YOUR OWN AND WHOLESALE

- We love PYO and the energy and excitement it brings to the farm
- currently have PYO for blueberries and summer raspberries
- SWD has made it hard for us to offer PYO fall raspberries
- hope to bring back PYO strawberries
- If you plan to do PYO and wholesale, make sure you plan accordingly so you have enough berries for both markets
- We have certain sections specifically for PYO and production fields roped off/separated



## INVESTING IN A MECHANICAL HARVESTER

- In 2020 we invested in a mechanical harvester with the goal of reducing labor hours for the final clean up harvests
- Clean pick allowing us to mitigate the spread of disease which is essential as an organic grower
- Allows us to harvest a high percentage of the fruit set - essential with a labor intensive, high value crop
- Not a fresh pick harvest. Freezer quality. Useful for value added products, to sell to breweries and jam makers
- Massive labor savings



## Mechanical Harvester for Security

- Provides harvest security and peace of mind
- During slow PYO weeks
- Heat waves/ climate change
- When our crew can't maintain the harvest
- With mechanical harvester, we can harvest before we loose berries
- have them for our frozen berry line that we distribute year round and for value added products



## Mechanical harvester



## Mechanical

harvester


## INVESTING IN A SORTING AND PACKING LINE

In 2020, we purchased a:

- blower cleaner to remove stems and leaves
- sorting table to pick out green, soft and bruised fruit
- clamshell filler to expedite packing process.
- For reference and scale, the clamshell filler can fill 90 pints per minute
- $10 x$ faster than a person doing it by hand
- we typically distribute 1000-1200 pints per day



## SORTING AND PAKCING LINE

- has this speed up our packing time and freed up labor
- it has increased quality of our product
- has allowed us to efficiently handle a large influx of fruit in a timely manner.
- And it is fun! it moves at a rapid pace and gets your adrenaline moving.

STILL WORKING OUT THE KINKS:

- To efficiently use, we need a certain volume.
- still fine tuning how to most effectively incorporate this piece of equipment into our daily harvest and delivery schedule.



## Sorting



## Packing



## PRUNING

- Pruning is another labor intensive and time consuming part of the farm
- We look at pruning as an annual investment
- For the health of the plant (prevent and reduce pest and disease)
- Increased production
- Ease and efficiency of picking and between row maintenance
- To allow us to use the mechanical harvester (bushes need to be pruned to grow more vertically to perform correctly)
- Budget 20+hours per acre


## Why Prune Annually?

- For size and fruit balance. Pruning creates larger fruit with more even ripening tendances
- For crew, plant and pick your own happiness. Prune so the bush is upright, eliminate low hard to harvest fruit. Factor in harvest speed, fruit quality, size, disease in your cuts.
- For airflow and to reduce prevalence of disease. Remove dead, diseased and crossed wood!
- Canes are productive from ages 3 to 6



## EFFICIENCIES/STRATEGIES FOR PRUNING

- Prune each bush annually
- Weather can always be a challenge so we create a triage list by variety before the pruning season begins
- Consider Electric/ battery pruners for long term success and health
- Clean cuts
- minimizes exhaustion
- no carpal tunnel syndrome



## EFFICIENCIES/STRATEGIES FOR PRUNING

- Get to know what each variety needs when it comes to pruning - each variety has its own specific pruning needs
- Jessica and I do all the pruning for the farm and have found it most efficient if we are each responsible for different varieties as each variety has its own unique pruning requirements.
- It also allows us to develop a unique 2-3 year pruning plan for each of our individual variety.



## FOR SUCCESS KNOW YOUR MARKETS AND LABOR NEEDS

- Before you plant or expand:
- know your existing markets
- do your research - identify the gaps and opportunities
- try not to cannibalize the market
- calculate labor needs
- Are you harvesting for wholesale to restaurants and super markets?
- Selling direct through farmstands, PYO, farmers markets?
- Be aware that you will need extra capital to maintain a crop/planting that you will not be generating any income from (not profitable for 3+years)



PICK YOUR OWN AND FARMSTAND


- BERRIES FOR THE BELLY! DG 985 BINGHAM BROOK ROAD, EAST CHARLOTTE,VT 05445 INFO $\frac{1}{A T}$ ADAMSBERRYFARM.COM $\cdot \mathbf{8 0 2 . 5 7 8 . 9 0 9 3}$


## FOR SUCCESS KNOW YOUR MARKETS AND LABOR NEEDS

- Do you have a market outlet for seconds fruit? Breweries, cideries, juice, jam companies are good possibilities.
- Create your own value-added product.
- Jams, frozen berries, pies, ice cream, ferments, sauces, wine, etc.



## QUESTIONS

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