

Sattin Hill Farm Course

Module 7: Crop Planning

Introduction

Once you have decided on which crops you want to grow (refer to Module 3), you have to figure out your crop plan. The best time to think about this is during your slow season. It's the perfect time to plan out what crops to grow and how much of each crop you want. That will determine your seed order.

We recommend that you order your seeds ahead of time for the whole season. When spring and summer are in full swing with planting and harvesting, you will be stretched thin and not want to be bothered with ordering seeds at the last minute. The reality is you'll need to make some adjustments on the fly, but the goal is to limit adjustments and anticipate what and when to plant in advance. When it's quiet during the off-season, you'll have more mental space to plan.

Apply the Principles to Your Context

When it comes to crop planning, there is no playbook. There is no "follow these steps, and you will be successful" silver bullet. When Josh first started his farm, he followed other farmers' crop plans, and they ended up not working for his context. Because of this, he designed this course to give you guidelines, ideas, and frameworks to think about so you can then strategize to form your plan.

There are a variety of approaches to crop planning. Some people are detail-oriented and very specific, while others keep it very loose. Josh's approach falls somewhere in between. When creating your crop plan, a good starting point is to break it down to how much of each crop you'll need per week. For example, if you need 50 pounds of lettuce every week, you'll have to figure out how to have that amount ready to harvest consistently. This takes a lot of time, practice, and record-keeping experience. Be easy on yourself as you're starting. It will take a couple of seasons to figure out how long it takes different crops to grow and the yields in your specific context.

Sales Outlets Dictate Crop Planning

Restaurants: Josh sells exclusively to restaurants. The most important aspect of crop planning when selling to restaurants is consistency. Not only consistency in the amount of product but also in the quality. Restaurants will generally be buying the same amount from you every week. Whether it's 10 pounds or 15 pounds of lettuce, chefs will be relying on that as their primary source. If you can't deliver, they will have to find other ways to get that product. Once a chef learns that you are reliable for consistent delivery, this will strengthen your business relationship.

CSA: The CSA (community-supported agriculture) model is a more challenging sales outlet. Josh recommends having at least 6-10 items per week in your CSA box. This means having 6-10 items ready to harvest every week, taking meticulous crop planning, and knowledge about many different crops.

Successful CSA farmers must be proficient at crop planning. It requires specific knowledge about each crop, how long they take to reach maturity at different times of the year, and when they will be ready for harvest. The content of every box will need to be outlined in advance. It also requires flexibility to roll with the inevitable variables that will always arise: crops growing quicker or slower than anticipated or crop failures.

Farmers Market: The farmers market is a great place to start selling your produce in a low-pressure environment. The goal is to have consistency with a few staple crops and rotate in some seasonal crops. If you sell at a farmers' market, there will likely be a few products that customers expect every week. Aspiring to supply those consistently will build your clientele. If you can get a reputation for being the “salad mix farmer” or the “carrot farmer,” (having a consistent specialty crop) customers will start coming to you for that every week. Once they are there they will likely add on other purchases once they see what else you have available.

Seasonality

Seasonality plays a huge role in crop planning. This means learning to plant certain crops during certain times of the year when they grow well. For example, you're not going to grow tomatoes in the wintertime, and there are certain crops that you probably wouldn't grow in the summertime, such as spinach.

You'll also need to learn how long crops take to get to when they're ready to be harvested. This is what's known as the “days to maturity.” Most catalogs and seed packages will provide the days to maturity for each crop. However, those numbers are based on the middle of the season, and will vary depending on what time of the year you're planting.

For example, in the spring and fall (known as the shoulder seasons), things will grow more slowly and even more slowly in the wintertime. This is due to less light and less heat. When planning out your succession planting (planting successions of a particular crop), you'll need to consider the time of year for the days to maturity.

If you plant two beds in the spring that are three weeks apart, the second bed will start catching up to the one planted three weeks earlier as the days grow longer and the temperatures start rising. This will exponentiate even more as the season progresses. Even though you planted the same crop three weeks apart, the plantings might be ready for harvest only one week apart due to the season's changing. The opposite is true in the fall: if you plant the same crop one week apart, it might be ready for harvest three weeks apart as you begin moving towards winter with less light and less heat.

The best thing you can do to get familiar with this is to take notes and keep good records. For example, if you plant a bed of lettuce in mid-September, and harvest it in late November, you'll know how long it takes in your climate, which can then inform the next season's crop plan.

Winter growing is unique. You have to plan everything out to plant in the fall ahead of time. Growth is slow with short days and low temperatures. Harvesting can take place throughout the winter from crops sown in the fall.

Sattin Hill Crop Planning Techniques

Transplanted Crops: Josh focuses most of his crop planning on his transplants (instead of the direct seedings). In his succession planting schedule, he needs to have one bed of lettuce every week. Each week, he plans on planting one bed's worth of lettuce transplants in his nursery. This provides a constant stream of transplants to supply one bed's worth of planting each week throughout the season.

Direct Seeded Crops: When it comes to direct seeding, Josh will direct seed whatever extra beds are available. He recommends having a couple of crops that you can easily direct seed whenever you have an open bed. You can also use cover crops in empty beds if you have more space. Direct seeding is also a good fallback if a bed of transplants fails for whatever reason. The failed transplants can be quickly raked out, and the bed can be immediately seeded to keep a continual flow of harvest.

Seasonal Crops: Josh will typically have two seasonal crops growing in addition to his staples of lettuce, carrots, and beets. This allows for some flexibility and also keeps things interesting. Chefs will be counting on the staple crops each week, and then he can let them know in advance when to expect seasonal varieties, should they want to add on to their orders.

Keep the Ground Covered

With no-till practices and living soil, one of the primary goals is to keep the ground covered. The healthiest option for the soil is to keep the ground planted. Your crop plan should strive to limit the amount of time something isn't growing in a bed. If there isn't a cash crop, then at least have a cover crop growing.

Another reason to keep all of your beds planted is to not lose money.. When farming small acreage, you need to maximize every square foot. Careful crop planning will ensure that all of your beds stay full and that as soon as one crop comes out, another one goes in.

Transplanting

When farming on small acreage, increasing yields to grow profit is critical. Transplanting is one strategy that can help to accomplish this. Starting seeds ahead of time in your nursery gives you three or four weeks of growth before they even go into the ground. If you were directly seeding

all of your crops in the field, you would lose quite a bit of time and profit. In this way, transplanting gives you more potential output per bed throughout the season.

Another benefit of transplanting is selecting the healthiest transplants going into the ground and leaving out the unhealthy ones. Josh has observed much higher yields from beds transplanted with 100% healthy starts.

Transplanting also gives you an exact density and eliminates empty bed space due to failed germination in the field. When you plant a bed to maximum density with all strong and healthy transplants, your numbers for yields per bed can be much more accurate. This is a massive help for crop planning for future seasons.

Second Cuttings

Josh only plans for one cutting from his Salanova lettuce plantings, but sometimes if conditions are just right and the regrowth is of high enough quality, he'll cut a second harvest. It's considered a bonus but not a guarantee. However, in the summertime, it's much more challenging to get a healthy regrowth, so he will remove the crop immediately after the first harvest to prepare for the next planting.

The second cutting on almost any crop will usually be less yield and slightly less quality. If your customers are accustomed to only top-quality greens, you should generally only plan on one harvest.

Beets

When it comes to the first harvest of beets, Josh recommends initially pulling just the big ones, and then in the next few weeks, the small ones will mature into bigger ones. This allows for harvesting off one bed for multiple weeks. If you needed to fill a large order all at once, this strategy wouldn't work.

Long Season Crops

Some crops provide a continual harvest over a more extended time, such as tomatoes and kale. Whether it's short-season quick turnover crops or long season crops, you'll have to get familiar with each crop to anticipate what your yields are going to be. This information plays into your ability to create a more accurate crop plan.

Interplanting

Interplanting planting can also be a great way to increase the output on your farm. Interplanting is learning which crops can beneficially grow together in the same bed. This is a more advanced technique with its own future module in the course. Essentially it's a way to increase the output

while also increasing the diversity in your soil. Josh doesn't recommend experimenting with interplanting until you master all of the crops you are growing individually.

Conclusion: Keep Records, Limit Experimentation, & Stay Organized

If you can keep track of when you plant something, when you harvest it, and the yields you get, then you can use that data for future seasons to determine your crop planning and know what you can expect out of each crop at a particular time of year. This information is crucial for developing your crop plan to continue growing your farm business.

It is also important to note that experimentation should be minimal. It's always good to experiment a little, but don't risk too much. You always want to be tweaking things along the way, but smaller tweaks mean smaller potential crop failures. Start with a small number of crops and learn how to grow them well. Use that to build your crop plan for the maximum amount of yield for your farm business.

Strive to stay organized, but keep flexibility in your crop plan. Plan to have extra transplants as insurance in case of failed crops. Keep your beds full to ensure you have a maximum yield whenever possible.