

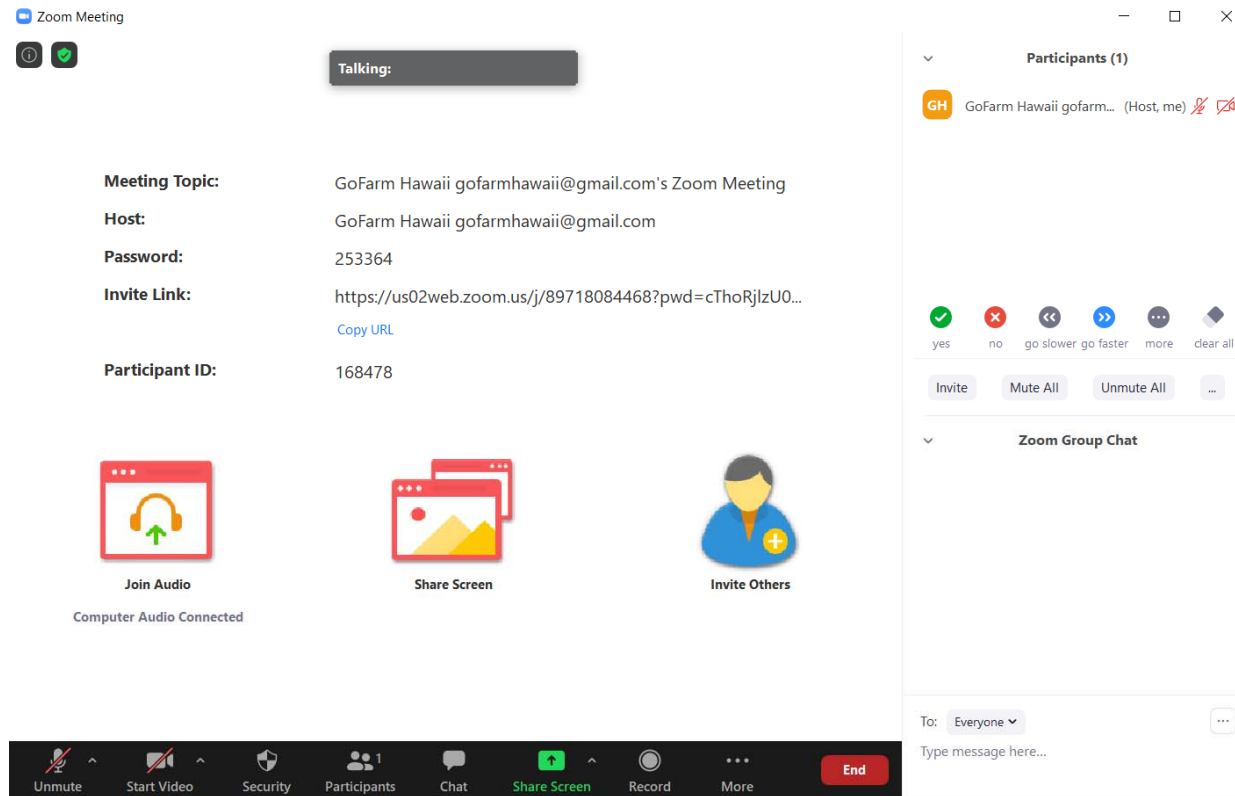
Production Planning



Using Zoom

Zoom

- Select the Participants Button – change your name
- Please Mute yourself during the presentation
- Select Chat to get the Chat Box - type your questions there
- We will be recording the session



Resources

- Website
 - <https://gofarmhawaii.org/2020-molokai-lanai-business-training/>
- Workbook Reference:
 - <https://gofarmhawaii.org/wp-content/uploads/2020/06/GFH-Business-Training-Workbook.pdf>

What are we discussing today?

- Classes so far
 - Intro to Business
 - Marketing
 - Today: Crop Production - Basics of Production Planning
- Aug. 11th Recordkeeping
- Homework

Why Do Production Planning?

Helps you plan/determine:

- Harvest yield and duration
 - How to plan for a steady production or for a specific market (i.e. CSA)? This will ensure you have enough product for your customers.
 - How much will you have/need to sell? This will help you determine how much sales and marketing efforts you need.
- Placement of crops you plan to grow and rotation (if any)
- Timing for inputs
 - Will help you determine when you need to purchase inputs and how much money you will need.
- Planning for tasks
 - Will help you keep focused and be efficient.
- Labor requirements
 - When do you need to focus on specific activities?
 - Do you have enough labor?
- Revenue projections and cash flow impact
 - Will you need a loan? Will your plan provide sufficient income?
- Cost projections and cash flow impact
 - Can you afford to make bulk purchases? Do bulk purchases make sense for your needs (i.e. may not want to buy in bulk if going to last too long)

Things to Consider/Decide:

- What do you plan to grow?
 - Is there a demand/market for the crop?
 - How many crops do you plan to grow?
- Who do you plan to sell to and do you need to grow a specific amount to achieve your financial or production goals?
 - Who is your market and how consistent does production need to be (i.e. if selling at Farmers' Market can take what you have when you have it; if selling to certain restaurants or wholesale accounts, they may rely on a consistent supply)
 - Are you committed or wanting to achieve a specific volume?
 - Are you growing for market or planning to market what you grow?
- What are land and growing restrictions?
 - How does land size, condition, location, season, etc. impact your plan?
- How much money will I make?
 - Do a high-level financial and market analysis to validate your business idea and goals.
- What kind of production schedule makes sense for your business and personal needs?
 - Will you take a break during certain times of the year?

Production Plans

[illegible]

Production Plans

FarmPlenty Crop Planner

Please contact us at team@farmplenty.com if you have questions or feedback, we'd love to hear from you!










































Enter your crops, number of beds to plant, and date you want to begin harvesting in the orange highlighted area. This sheet will calculate the rest, including your seeding, transplant, and harvesting schedule and total yield and projected revenue per planting. Make sure all your crops are listed in the Crop Table sheet and that you update the Crop Table with accurate information such as last harvest date and price. If you have different varieties of the same crop or different planting dates, enter a separate row for each planting. See the Revenue Summary sheet for your monthly yield and revenue per crop.

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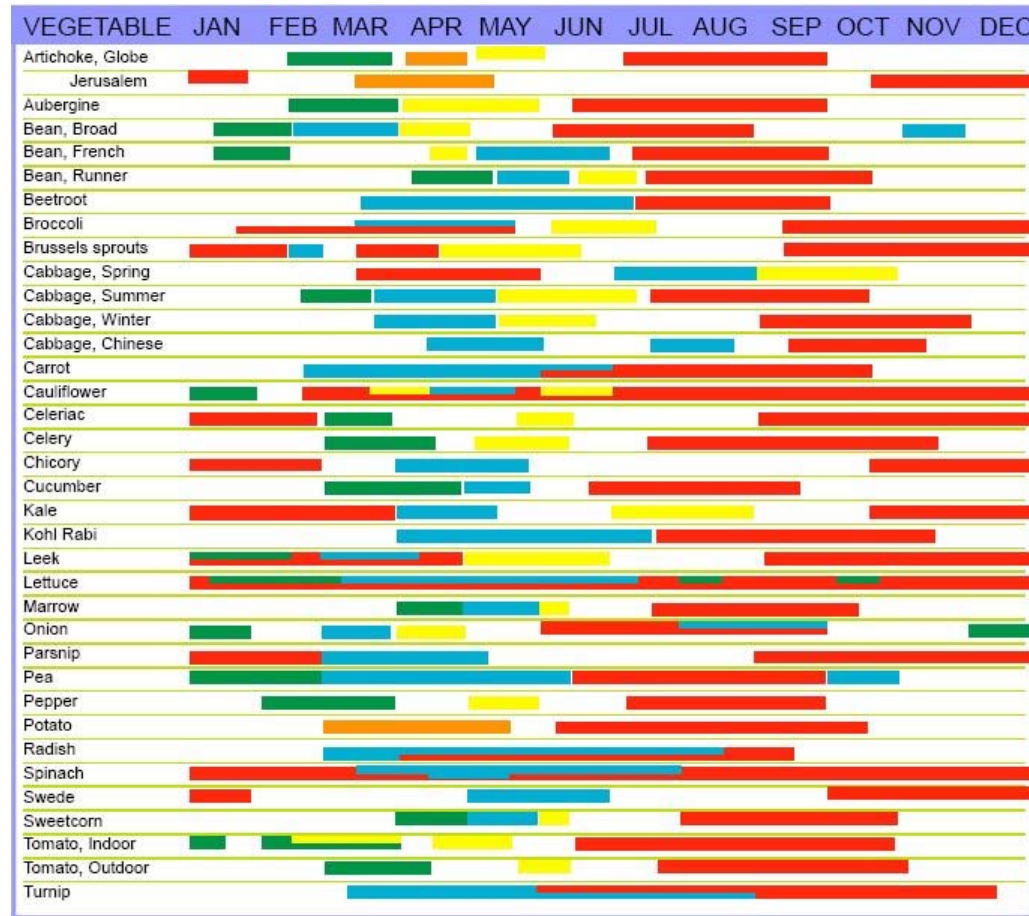
Production Plans

Plant List for 2009: My Garden Plan ☒ Show planting times

 = Sow indoors / undercover
 = Sow outdoors / plant out
 = Harvest

Plant	Number	Spacing	Spacing in Rows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Notes
 Beans (Fava)	24	0' 7"	0' 5" x 0' 9"													
 Beans (Bush Snap)	10	0' 9"	0' 5" x 1' 1"													
 Beans (Pole)	25	0' 9"	0' 5" x 1' 1"													
 Broccoli	8	1' 5"	1' 5" x 1' 5"													
 Chinese Cabbage	9	1' 3"	0' 11" x 1' 11"													
 Carrot	111	0' 3"	0' 3" x 0' 5"													
 Cauliflower	8	1' 7"	1' 5" x 1' 11"													
 Celeriac	12	1' 1"	0' 11" x 1' 3"													
 Corn	24	1' 1"	0' 11" x 1' 5"													
 Eggplant	6	1' 3"	1' 1" x 1' 5"													
 Peas	38	0' 3"	0' 3" x 0' 7"													
 Potatoes (Maincrop)	6	1' 5"	1' 1" x 2' 5"													
 Pumpkin	1	2' 11"	2' 11" x 2' 11"													
 Tomato	6	1' 7"	1' 5" x 1' 11"													

Production Plans



KEY

■ = Sowing indoors, under cover
■ = Sowing outdoors

■ = Planting tubers, sets or offsets
■ = Planting out seedlings
■ = Harvesting

Production Plans

The image shows two overlapping 'Garden Planner' sheets. The top sheet is partially obscured by the bottom sheet. Both sheets have a similar layout with columns for different crops and rows for planning details.

Top Sheet (Visible Crop: ITALIAN KALE)

CROP	ITALIAN KALE	SCOTCH KALE	LETTUCE MIX	CHAMOMILE	NASTURTIUMS
VARIETY	LACINATO	DWARF CURLED SCOTCH	MESCLUN MARKET BLEND		
SEED VENDOR	TOSCANO	LAUGHING SWAN	WCS		
INDOOR SEED PLANTING DATE					
OUTDOOR PLANTING DATE	APR 15	APR 15			
ESTIMATED HARVEST DATE			MAY 1	MAY 1	MAY 1
YIELD					
NOTES					

Bottom Sheet (Visible Crop: ITALIAN KALE)

CROP	ITALIAN KALE	SCOTCH KALE	LETTUCE MIX	CHAMOMILE	NASTURTIUMS
VARIETY	LACINATO	DWARF CURLED SCOTCH	MESCLUN MARKET BLEND		
SEED VENDOR	TOSCANO	LAUGHING SWAN	WCS		
INDOOR SEED PLANTING DATE					
OUTDOOR PLANTING DATE	APR 15	APR 15			
ESTIMATED HARVEST DATE			MAY 1	MAY 1	MAY 1
YIELD					
NOTES					

Production Plans

What are you planning to grow? (Workbook pg. 23)

- Document general information for each crop (number of plants/bed; cycle, general activity; labor hours, inputs, and yields) by week
- Consider using standard bed feet.
- For planning, group like crops together when possible.

[illegible]

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Crop									
Beed Feet									
Row Feet									
Activity									
Labor Hours									
Input/Cost									
Harvest Yield									

Production Plans

What are the costs associated with your crops and business? (Workbook Pg. 26-28)

- List cost for all inputs, costs associated with each crop (direct), costs to startup, and costs to operate (indirect).
- Think about all the costs that you may incur in your business

Direct Costs

	Cost	Size	# Needed per Year	Total Cost per Year	Notes
Ex. Salad Mix Seeds	\$10	pack	3	\$30	
Ex. Irrigation Drip Tape	\$250	1000 feet	1	\$250	
Ex. Soil Amendments	\$20	bag	2	\$40	
Ex. Pesticides	\$53	gallon	2	\$106	

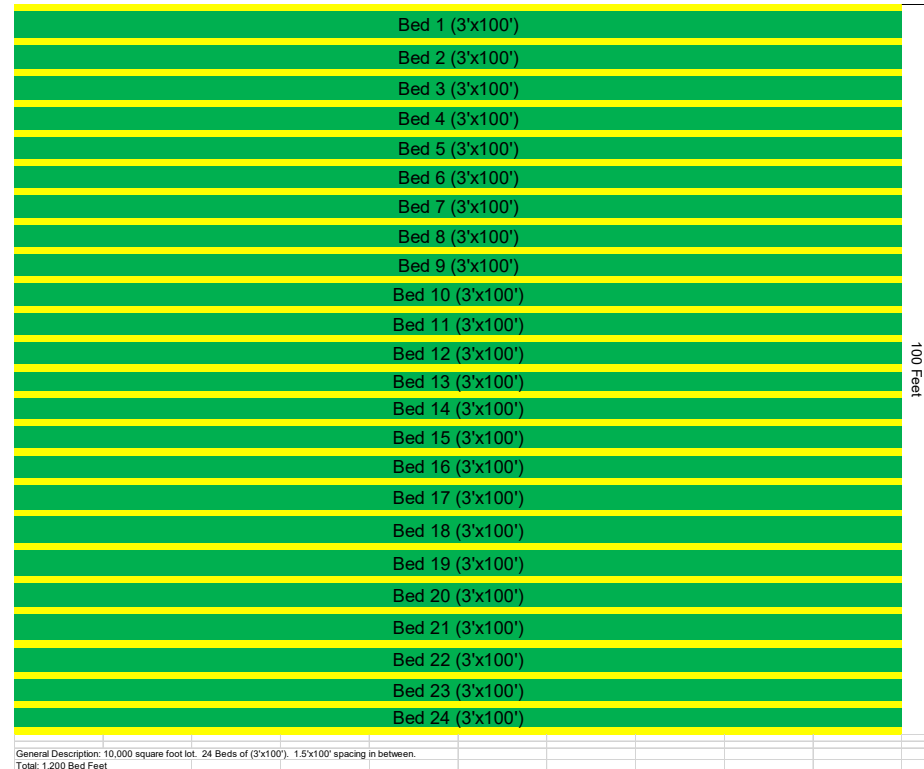
Indirect Costs

	Annual Cost	Notes/when and how often is the payment made
Ex. Insurance	\$750	Paid annually up front
Ex. Cellular Telephone	\$300	\$25 per month
Ex. Gasoline	\$1,200	\$100 per month
Ex. Lease Rent	\$960	\$50/month
Ex. Website	\$25	annual cost
CSA Bags	\$100	upfront cost; should last 2 years; purchasing 2 per customer plus 10 extra
Farmers' Market Fees	\$3,200	\$100/week; only going when CSA not offered

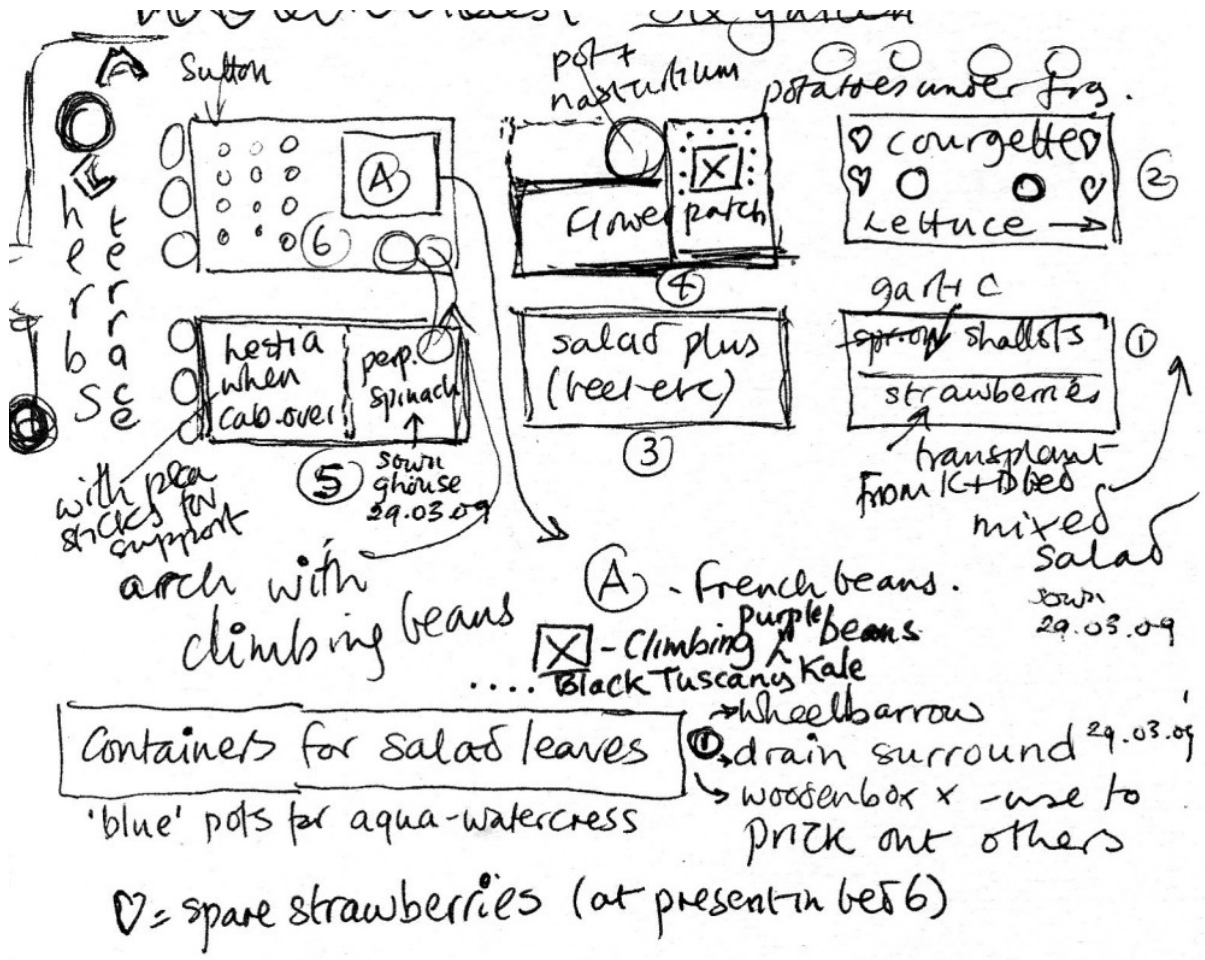
Production Plans

Design field map based on the types of crops selected.

- What is the shape and dimensions of your plot?
- How many beds will you have and what is the length of each bed?



Production Plans



Create a crop production plan. AgBusiness Workbook Page 23-26.

- Based on your crops needs, schedule when crop will be planted and harvested. Think about consistency or CSA needs.
- Consider seasonality.
- Consider need for rotations and your plan to cover crop in certain areas.
- Use the weekly crop detail to add detail to your plan.
- Do the crops you are growing require a rotation?
- Think about breaks in production. Do you plan to grow year round or take breaks/vacation?
- Calculate labor hours per week.
- Calculate harvest yields per week.

Production Plans

Example Production Plan

	Week																			
Bed	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1			Lettuce Mix						25	25	25									
2						Lettuce Mix						25	25	25						
3									Lettuce Mix						25	25	25			
4		Bunching Greens							20	20	20	20	20	20	20					
5	Beets								20	20	20	20	20							
6	Eggplant								15	15	20	20	20	20	20	20	20	20	20	20
7		Bush Beans							20	20	20									
8					Bush Beans							20	20	20						
9								Bush Beans							20	20	20			

Understanding the Relation Between Production and Cash Flow

- Exercise: AgBusiness Workbook Page 20. Answer the questions in the table based on these assumptions:

ASSUMPTIONS	Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8	Week9
Activities	Bed Prep	Bed Prep	Direct Seed Planting	Weeding/ Maintenance/ Water	Weeding/ Maintenance/ Water	Weeding/ Maintenance/ Water	Harvest	Harvest	Harvest
How much will it cost to do this?	\$45 (soil amendment ; irrigation)		\$10 (seeds)	\$5 (pest management)			\$10 (packaging)		
How much product will I have (yield)?							25 pounds	25 pounds	25 pounds
How much will I sell this for?							\$7.50	\$7.50	\$7.50

Understanding the Relation Between Production and Cash Flow

	Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8	Week9
How much money will you make this week? CASH IN (REVENUES)	\$0	\$0	\$0	\$0	\$0	\$0	\$187.50	\$187.50	\$187.50
How much will you spend to grow your product this week? DIRECT COSTS	\$45	\$0	\$10	\$5	\$0	\$0	\$10	\$0	\$0
How much money did you make from selling your product? GROSS PROFIT	-\$45	\$0	-\$10	-\$5	\$0	\$0	\$177.50	\$187.50	\$187.50
How much does it cost to operate your business? INDIRECT COSTS	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10
How much did your business make after all expenses? NET PROFIT	-\$55	-\$10	-\$20	-\$15	-\$10	-\$10	\$167.50	\$177.50	\$177.50
How much is in your account at the start of the week? STARTING CASH	\$100	\$45	\$35	\$15	\$0	-\$10	-\$20	\$147.50	\$325
How much is in your account at the end of the week? ENDING CASH	\$45	\$35	\$15	\$0	-\$10	-\$20	\$147.50	\$325	\$502.50

REMEMBER

- The Production Plan is a planning tool – it will never be 100% accurate. However, it will allow you to plan activities, labor hours, input requirements, costs, yields, and revenues. The more experience you get, the better your estimates will become.
- To get information:
 - Use prior data
 - Research
 - Ask others
 - Best guess
- This is a working document...it can be changed and you'll get better at it!

Understanding Production and Cash Flow

- Things to think about:
 - Can you sell everything you grow? If not, the Cash In (Revenues) should reflect how much you think you can sell.
 - A Cash Flow Projection reflects how money will flow in and out of your business. Show the money when you expect it to come in or go out of your bank account. For example, it may cost \$10 for packaging but if you are only using 1/10 of the case, your Cash Flow Projection would show \$100 in the month of the purchase.
 - Depending on your market segment and options you give customers, cash may not come in when product is delivered.
 - Ending cash should never be \$0. You may need to get more money to pay your bills or hold off on purchasing expenses.

Homework so far

- ◉ Workbook Page 12: Self-Assessment
 - ◉ Review the assessment again
 - ◉ For any NO answers, think of a plan to get educated, more information, fill the gap (someone else you know), or get comfortable.
- ◉ Workbook Page 13: Business Model
 - ◉ Review the questions
 - ◉ Start trying to fill in some answers; as you learn more, you can complete more!
- ◉ Workbook Page 14: Who's Going to Do It All?
 - ◉ Review the questions
 - ◉ Think about who will do the work and if they have what they need to do it well
- ◉ Workbook Page 5 & 6: Outline Your Goals
 - ◉ What are your short term and long term goals (financial, personal, other)
- ◉ Workbook Page 8: Do Your Research
 - ◉ Review the questions
 - ◉ Is there a market for your product?

Homework from today

- ◉ Workbook Page 23: What Do I plan to Grow
 - ◉ Research the life cycles of the crops you plan to grow
- ◉ Workbook Page 26 - 28: Costs
 - ◉ Estimate your direct and indirect costs
- ◉ Workbook Page 26: Plan Your Production
 - ◉ Based on the crops you plan to grow and your intended market create a production plan
 - ◉ How much growing area do I have?
 - ◉ What crops do I plan to grow and how much space will I allocate to each?

Survey Time

- ◉ <https://forms.gle/Y8X9AgFYMhWzC14f9>

Conclusion

Questions?

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