

Foundation Farm/ Winter Crop Planning



Challenge: to produce a continuous supply of food, week after week, while the weather goes wild and freezing nights want to kill all you grow. The timing of crops painstakingly learned for the other seasons is suddenly useless.

Because of these extreme weather conditions, planning and timing is everything.



This market table on January 31st 2013 had kale, chard, spinach, lettuce, mustard, bok-choi, collards, parsley, cilantro, turnip, and carrot.

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1- Planning Factors:

Factor 1: Temperature

- Tunnels provide a 1-month calendar shift so when it is December you plan as if it was November instead, and January becomes February. In effect, December and January 'do not happen'.

Factor 2: Crop Hardiness

- Learn various crops' abilities to face fierce cold weather-- Your climate zone will greatly affect this. Foundation Farm is in Zone 6A.
- Certain crop sub-types or varieties will outperform their siblings in harsh weather.
- Position crops within the tunnels according to their relative hardiness (hardest in outside beds)



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Factor 3: Marketability

- Winter stars: carrot, spinach, kale, lettuce, baby mix
- Supporting cast: arugula, cilantro, turnip, scallions, chard
- Extras: collard, mustard

Market outlets can affect the list.

Factor 4: Growing Ability

- My winter list of "problem-crops": spinach, carrots, and cauliflower. Reasons include poor germination, questionable hardiness, sensitivity to insects, diseases and weeds, and more.
- My winter list of dream (easy, marketable) crops: lettuce, cilantro, arugula, bok-choi and kale

Keep in mind that some varieties will stand out in term of hardiness or overall adaption to our area.



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	direct seeded vs. transplant	market potential	multiple harvest	cold hardiness	notable varieties
bokchloi	ds/t	**	yes/no	**	black summer, taipei
cabbage	t	**	no	**	copenhagen
arugula	ds	***	yes	***	
baby greens	ds	***	yes	**	red salad bowl, mizuna, taipei, red russian kale
lettuce	t	**	no	**	magenta, parosc
mustard	t	*	yes	**	green giant
kale	t	***	yes	**	siberian, reflex
chard	t	**	yes	**	
collard	t	*	yes	***	
spinach	ds	***	yes	***	tyeh, space
parsley	t	**	yes	**	
cilantro	ds/t	***	no	**	santo
mache	ds	**	no	***	
japanese turnip	ds	**	no	**	
purple top turnip	ds	*	no	***	
carrot	ds	***	no	***	
radish/daiikon	ds	**	no	**	cherry belle
leek	ds/t	**	no	**	
green onion	ds/t	**	no	**	evergreen

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Factor 5: Soil Readiness/Fertility

- So far (8 years), winter has not generated any particular fertility requirement from overall farm strategy (organic matter, feather meal)

Factor 6: Plant Density

- A direct result of fertility, and light access
- Experimenting now with denser plantings
- Up to 5 lines of lettuce on a 4 foot bed
- Up to 7 lines of cilantro on a 4 foot bed

Factor 7: Plant Positioning

- Factors: hardiness, shape and size
- Position in the tunnel
- Position in the bed



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Factor 8: Overall Profitability

- All above factors bottom line with profit/square foot/month
- Lettuce leads so far
- Bed on the right reached a record \$1,000 in November.

Factor 9: Plant Rotations

- Faced with a restricted cultivated area (under tunnel), and limited choices of plants, winter rotations are next to impossible to plan for. It is fortunate that the overall health of our soil allows for the by-passing of rotation, a golden rule of organic farming.

Nevertheless, we try to alternate the few families of plants that we can play with.



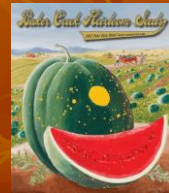


4- Seed & Variety Selection:



Seed Types:

- GMO seeds?
- treated vs. untreated?
- organic vs. conventional?
- heirloom (open-pollinated) vs. hybrid (F1)?
- regional ('adapted') vs. not?
- grow your own vs. bought?



Variety Criteria:

- adaptability/vigor: insects, diseases, weather
- culinary factors: flavor, texture, color
- yield: total amounts, timing (burst vs. leveled)
- growing habit: size, shape, speed, endurance



Seed Sources:

- seed trials vs. just resale
- organic vs. conventional vs. heirloom
- price, service

My top 4:

- #1 Johnny's (trials, organic)
- Southern Exposure (heirloom, regional)
- Morgan County Seeds (price, service)
- Kitazawa (Asian)



5- Growing Plants:

- Cost Savings
- Unlimited Options



My gardening/farming books are available for \$10 each or \$25 for all 3...

