Victory Gardening
in the
Big Country

John Geib
Master Gardener
Vegetable and Compost Specialist

What will you Learn Today

- Why garden
- Why growing things in the Big Country is difficult
- How much food you can get from your garden
- How to plan your garden throughout the year
- Solving Common Problems

The size of our grandparents country gardens were large and produced a significant portion of the family's food. They were economical.

Very limited space in most urban settings

Why Garden

- Savings money can be a reason to garden
- Relaxation and enjoyment
- Family togetherness
- Rewards of ones labor
- Enjoyment of flavor of fresh produce
- Knowing what is on your food

Is there value to home gardening ?

Entertainment: YES

Therapeutic: YES

$$$$ Economics: NO - at least not initially.

Known delicious food source

Key Issues for Gardening in the Big Country

- Weather
- Water
- Soil
- Water
- Weather

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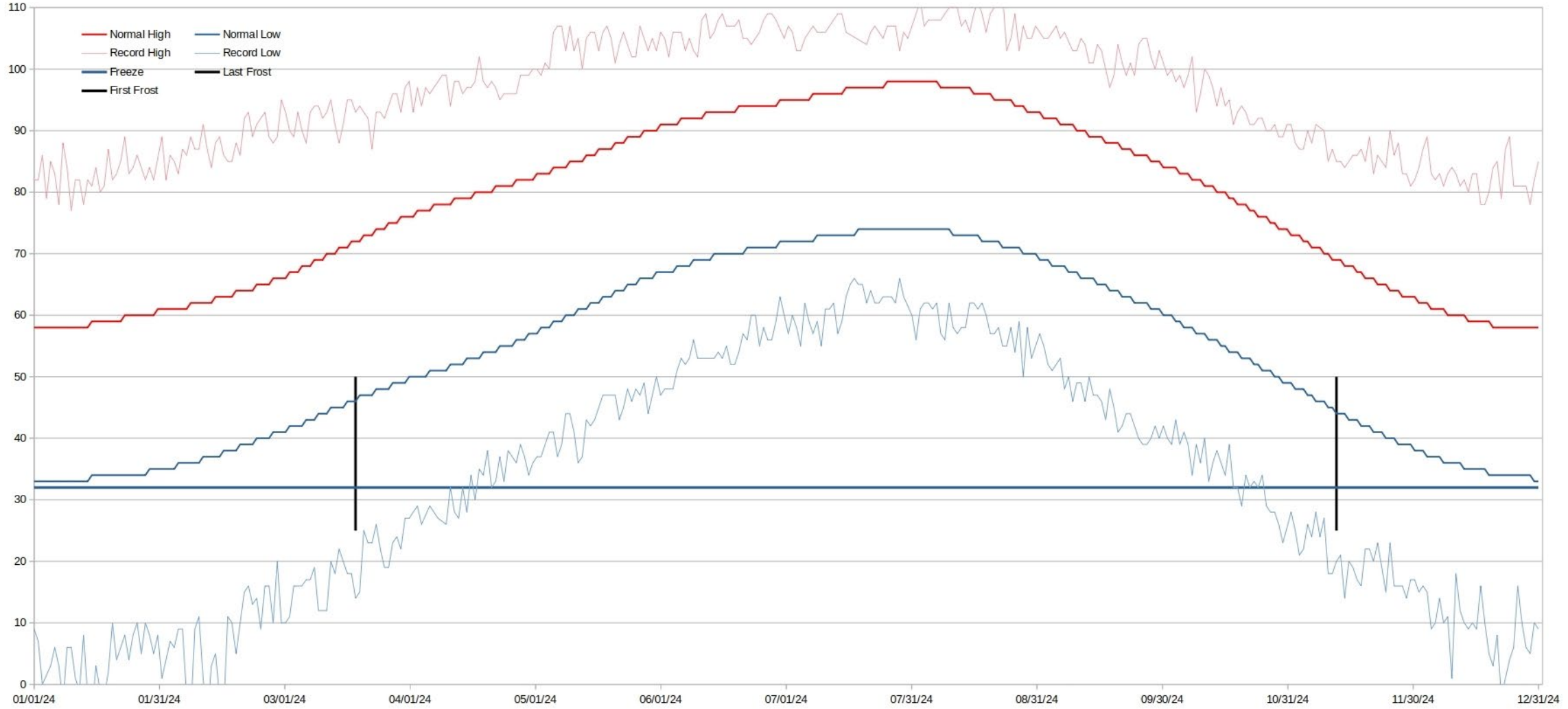
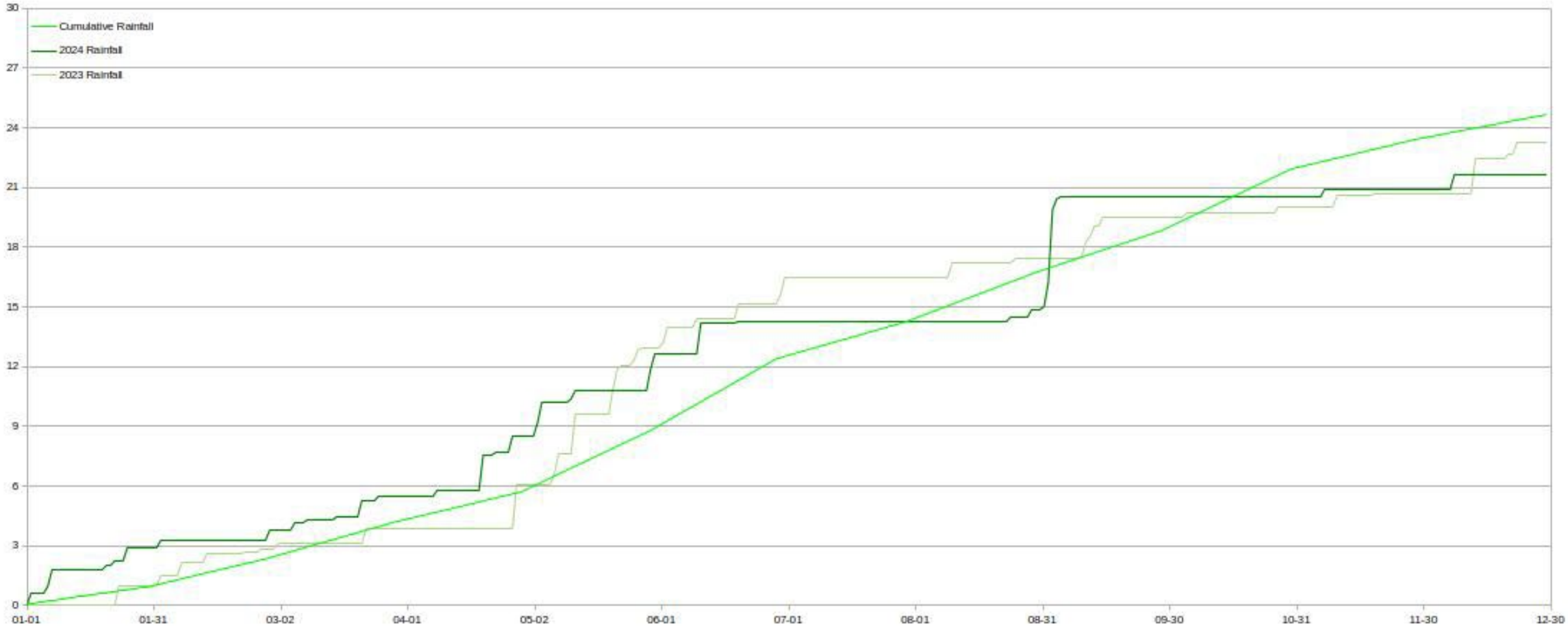
- Weather



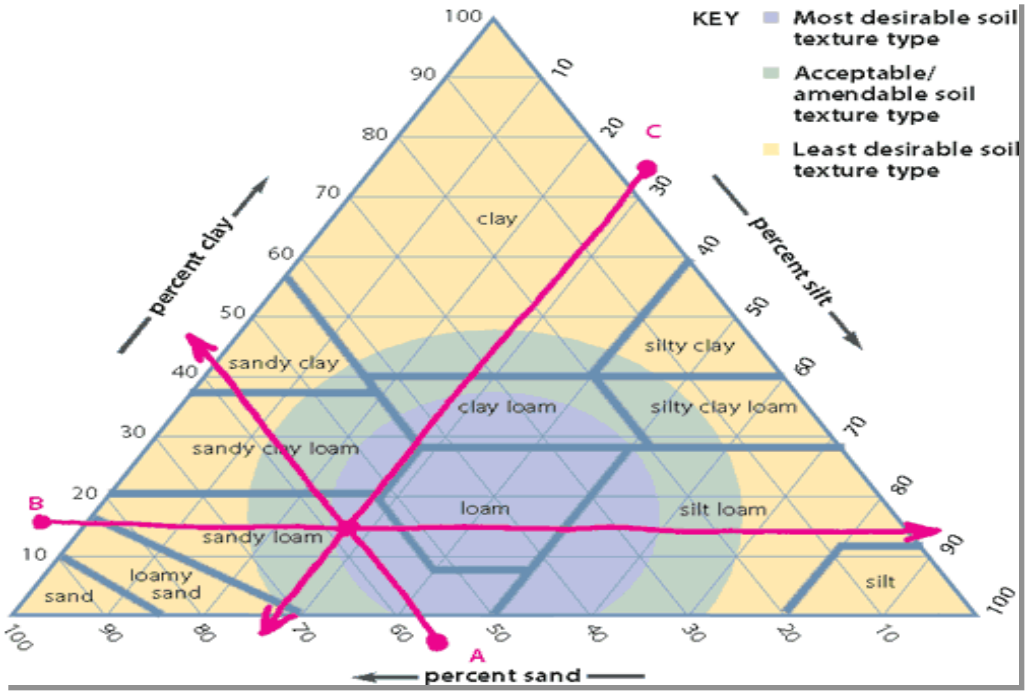
Key Issues for Gardening in the Big Country

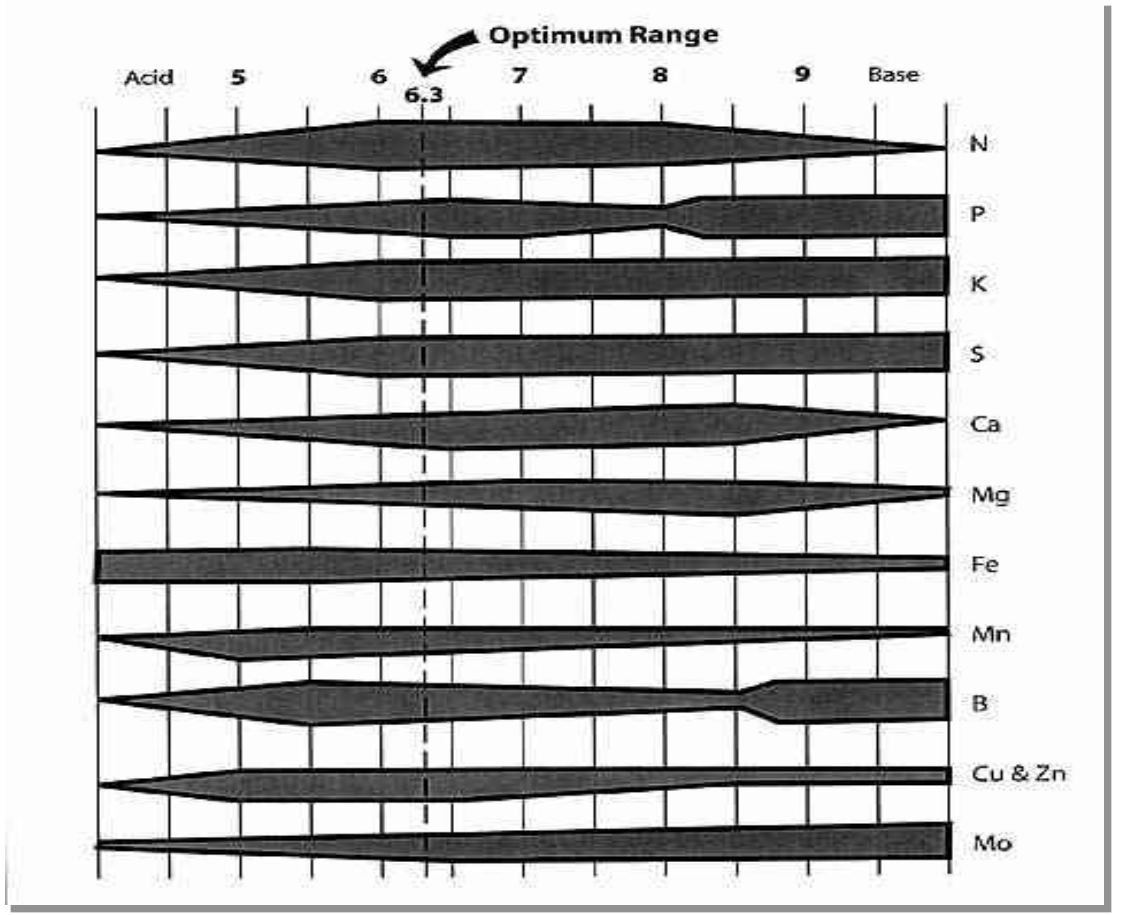
- Water



Key Issues for Gardening in the Big Country

- Soil





Key Issues for Gardening in the Big Country

- Water

Definitions & Abbreviations

Action Level (AL) • The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Avg • Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level (MCL) • The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) • The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) • The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) • The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MFL • Million fibers per liter (a measure of asbestos)

mrem • millirems per year (a measure of radiation absorbed by the body)

N/A • not applicable

ND • Analyte not detected in sample

NTU • nephelometric turbidity units (a measure of turbidity)

pCI/L • picocuries per liter (a measure of radioactivity)

ppb • parts per billion, or micrograms per liter

ppm • parts per million, or milligrams per liter

ppq • parts per quadrillion, or picograms per liter (pg/L)

ppt • parts per trillion, or nanograms per liter (ng/L)

Treatment Technique (TT) • A required process intended to reduce the level of a contaminant in drinking water.

*The value in the Highest Level or Average Detected column is the highest average of all TTHM/HAA5 sample results collected at a location over a year

	Year	Contaminant (Unit of Measure)	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Source of Contaminant
Inorganic Contaminants	2024	Arsenic (ppb)	1	0.0 - 1.1	10	0	N	Erosion of natural deposits
	2024	Barium (ppm)	0.18	0.16 - 0.18	2	2	N	Discharge from plastic & fertilizer factories; discharge from steel/metal factories
	2024	Cyanide (ppb)	206	25.8 - 206	200	200	N	Discharge from plastic & fertilizer factories; discharge from steel/metal factories
	2024	Fluoride (ppm)	0.8	0.822 - 0.841	4	4.0	N	Erosion of natural deposits; water additive for strong teeth; discharge from fertilizer & aluminum factories
	2024	Nitrate (ppm)	0.247	0.0403 - 0.247	10	10	N	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks or sewage
	2024	Selenium (ppb)	< 5.0	< 5.0	50.0	50	N	Erosion from natural deposits; discharge from petroleum refineries
Radioactive Contaminants	2023	Uranium	0.29	0 - 0.29	0	30	N	Erosion of natural deposits; decay of natural & man made deposits
	2023	Gross Alpha	< 3.0	< 3.0	0	15	N	Erosion of natural deposits; decay of natural & man made deposits
	2023	Gross Beta	10.7	7.7 - 10.7	0	50	N	Erosion of natural deposits; decay of natural & man made deposits
	2023	Radium 228 (pCi/L)	< 1.0	< 1.0	0	5	N	Erosion of natural deposits; decay of natural & man made deposits
Disinfection Byproducts	2024	Total Haloacetic Acids (ppb)	24.8	12 - 24.8	No goal for the total	60	N	Byproduct of drinking water disinfection
	2024	Total Trihalomethanes (ppb)	94	15.9 - 80	No goal for the total	80	N	Byproduct of drinking water disinfection
	2024	Chlorite (ppm)	0.82	0.000283 - 0.82	0.8	1	N	Byproduct of drinking water disinfection
Unregulated Contaminants	2024	Chloroform (ppb)	2.8	< 1.00 - 2.87	n/a	n/a	n/a	Byproduct of drinking water disinfection
	2024	Bromoform (ppb)	17.6	12.8 - 17.6	n/a	n/a	n/a	Byproduct of drinking water disinfection
	2024	Bromodichloromethane (ppb)	2.9	1.81 - 2.9	n/a	n/a	n/a	Byproduct of drinking water disinfection
	2024	Dibromochloromethane (ppb)	8	5.34 - 7.8	n/a	n/a	n/a	Byproduct of drinking water disinfection

	Year	Contaminant (Unit of Measure)	Highest Level Detected	Minimum Level	Maximum Level	Secondary Limit	Source of Contaminant
Secondary & Other Constituents Not Regulated	2024	Aluminum (ppm)	0.048	< 0.006	0.048	0.2	Naturally present in environment
	2024	Bicarbonate (ppm)	127	108	127	n/a	Corrosion of carbonate rocks such as limestone
	2024	Calcium (ppm)	87.8	44.2	87.8	n/a	Naturally present in environment
	2024	Chloride (ppm)	28.5	19	28.5	300	Naturally present in environment
	2024	Magnesium (ppm)	49.8	20	49.8	n/a	Naturally present in environment
	2024	Manganese (ppm)	0.043	0.0099	0.043	0.05	Naturally present in environment
	2024	Nickel (ppm)	0.0034	0.001	0.0034	n/a	Erosion of natural deposits
	2024	Zinc (ppm)	0.0	< 0.006	0.0062	n/a	Erosion of natural deposits
	2024	Sodium (ppm)	138	89.2	138	n/a	Erosion of natural deposits; byproduct of oil field activity
	2024	Sulfate (ppm)	29.4	9.3.3	29.4	300	Naturally occurring; common industrial byproduct; byproduct of oil field activity
	2024	Total Alkalinity as CaCO3 (ppm)	127	108	127	n/a	Naturally occurring soluble mineral salts
	2024	Total Dissolved Solids (ppm)	893	492	893	1000	Total dissolved mineral constituents in water
	2024	Total Hardness as CaCO3 (ppm)	423	194	423	n/a	Naturally occurring calcium
	2024	Conductivity (uhmos/cm)	1560	936	1520	n/a	Naturally present in environment
	2024	Potassium (mg/L)	11.3	6.86	11.3	n/a	Naturally present in environment
	20242	Chromium (mg/L)	<0.001	< 0.001	<0.001	01	Inorganic contaminants, such as salts & metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil & gas production, mining or farming

Chlorite: Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Type of Treatment	Year	Disinfectant Used	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Source of Contaminant
Maximum Residual Disinfectant Level (MRDL)	2024	Chloramines (ppm)	3.9	1.7	4.4	4.0	4.0	Disinfectant used to control microbes

Type of Contaminant	Year	MCLG	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Source of Contaminant (No Violations for Lead & Copper)
Lead (ppb)	2023	0	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	2023	1.3	0.249	0	1.3	Corrosion of household plumbing systems; erosion of natural deposits

Type of Contaminant	Year	Highest Single Level Detected	Lowest Monthly % of Samples Meeting Limits	Limit (Treatment Technique)	Lowest Monthly % Meeting Limit	Violation	Source of Contaminant
Turbidity (NTU)	2024	0.31	100.00%	1	0.3	N	Soil runoff

Type of Contaminant	Year	Contamination Source	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
Total Organic Carbon	2024	Source Water	6.8	4	13.7	ppm	Naturally present in environment
Total Organic Carbon	2024	Drinking Water	6	2.8	9.8	ppm	Naturally present in environment

Type of Contaminant	Year	Contaminant	Average Level	Minimum Level	Maximum Level	MFL	Source of Contaminant
Asbestos	2021	Asbestos	ND	ND	ND	7	Construction Materials

Type of Contaminant	Year	Contaminant	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Violation	Source of Contaminant
Total Coliform	2024	Total Coliform Bacteria	1.7	*	Presence	No Monitoring Violation	Naturally present in environment

*Presence of Coliform bacteria in 5% or more of the monthly samples

The UCMR program was developed in coordination with the Contaminant Candidate List (CCL). The CCL is a list of contaminants that are not regulated by the National Primary Drinking Water Regulations, are known or anticipated to occur at public water systems and may warrant regulation under the Safe Drinking Water Act. Data collected through UCMR are stored in the National Contaminant Occurrence Database (NCOD) to support analysis and review of contaminant occurrence, to guide the CCL selection process and to support the Administrator's determination of whether to regulate a contaminant in the interest of protecting public health.

Analyte	CAS Number	High	Range	Contaminant Classification
PFBA (ppb)	CAS 375-22-4	0.0148	0.000 - 0.0148	PFAS
PFPeA (ppb)	CAS 2706-90-3	0.0164	0.000 - 0.0164	PFAS
PFBS (ppb)	CAS 375-73-5	0.00688	0.000 - 0.00813	PFAS
PFHxA (ppb)	CAS 307-24-4	0.0214	0.000 - 0.0214	PFAS
PFHpA (ppb)	CAS 375-85-9	0.016	0.000 - 0.00960	PFAS
PFHxS (ppb)	CAS 355-46-4	0.0202	0.000 - 0.0202	PFAS
PFOA (ppb)	CAS 335-67-1	0.00714	0.000 - 0.00714	PFAS
PFOS (ppb)	CAS 1763-23-1	0.0296	0.000 - 0.0296	PFAS
Lithium (ppm)	-	28.9	9.5 - 28.9	Metals/Pharmaceuticals

Organic Contaminants - none detected	Fecal Coliform - not detected

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- Weather

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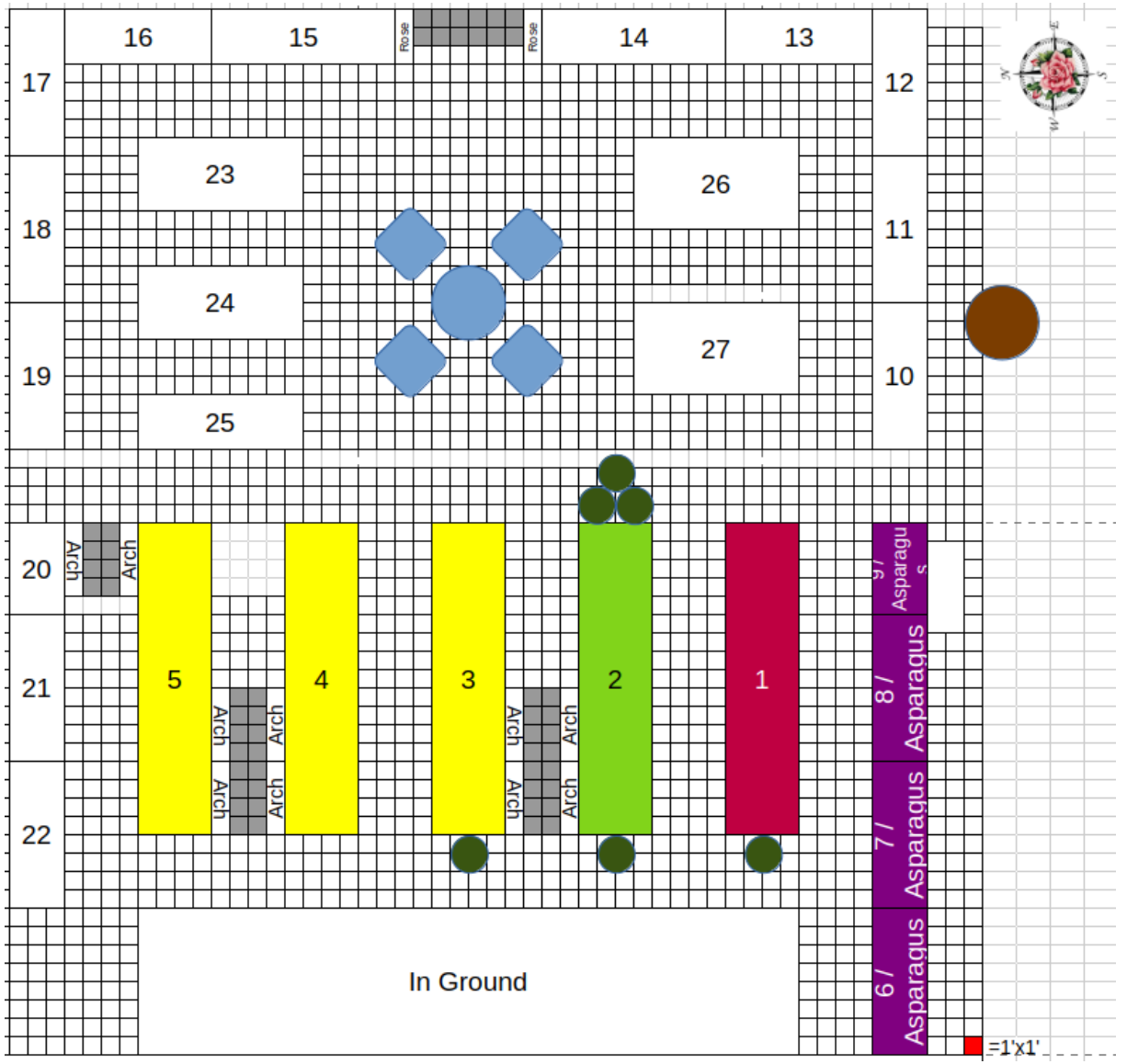
How much?

How much?

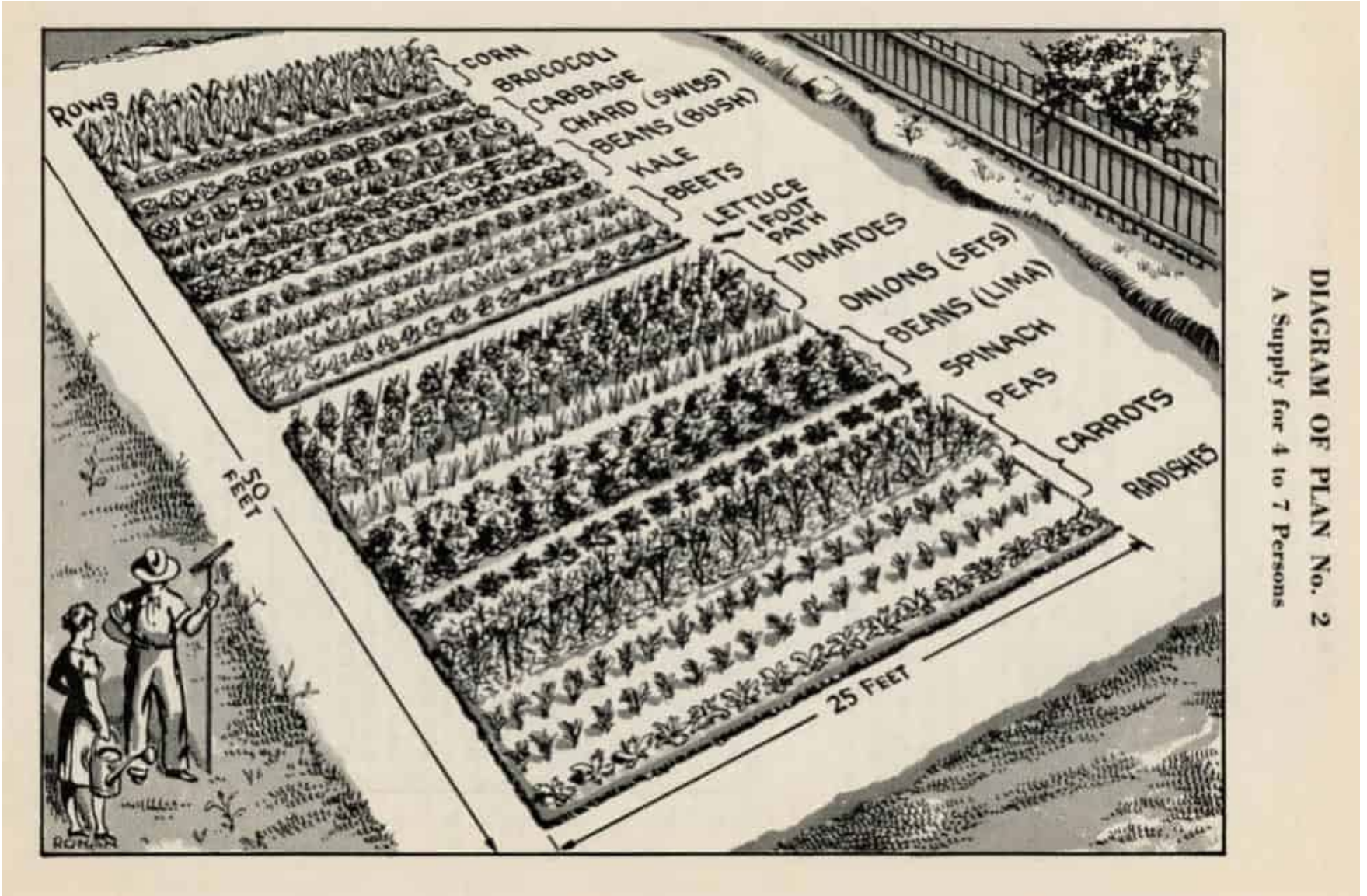
How much?


16
15
Rose
Rose
14
13
17
12
23
26
18
11
24
27
19
10
25
20
Arch
Arch
5
4
3
2
1
9 / Asparagus
21
8 / Asparagus
7 / Asparagus
22
6 / Asparagus
In Ground
=1'x1'

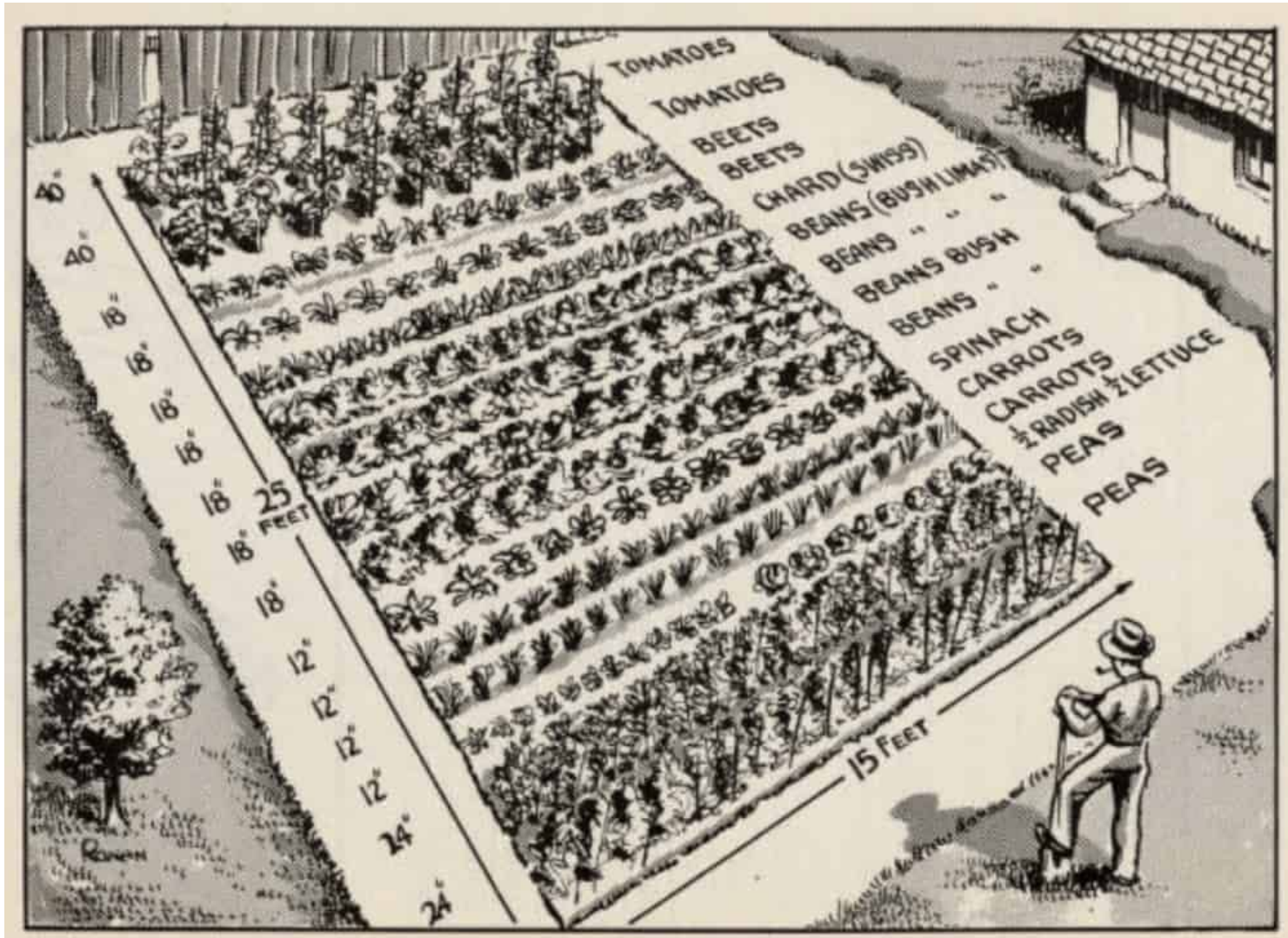
How much?

How much?

How much?


ROWS
CORN
BROCOCOLI
CABBAGE
CHARD (SWISS)
BEANS (BUSH)
KALE
BEETS
LETTUCE
1 FOOT PATH
TOMATOES
ONIONS (SETS)
BEANS (LIMA)
SPINACH
PEAS
CARROTS
RADISHES
50 FEET
25 FEET
DIAGRAM OF PLAN No. 2
A Supply for 4 to 7 Persons

How much?



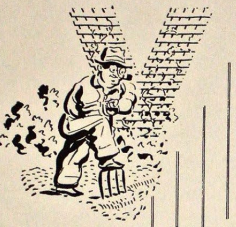
Will Supply Most of Needed Vegetables for 2 to 4 Persons

No. 1 PLAN FOR SMALL GARDEN

A Victory Garden for a Family of Five

On a Plot 25 x 50 ft.

Mix a small quantity of early radish seed with all turnips, carrots, parsnips and beets sown before May 1st.
Use summer radishes May 1st to Aug. 1st, early varieties again in Fall.



ONIONS, followed by LEAF LETTUCE	12 in.
HEAD LETTUCE, followed by SPINACH	24 in.
BEETS, followed by COLLARDS	30 in.
COLLARDS, followed by BEETS	30 in.
YELLOW GLOBE ONIONS for storing	12 in.
½ row PARSLEY—½ row MIXED HERBS	18 in.
ENDIVE, followed by LEAF LETTUCE	24 in.
BROCCOLI interplanted with EARLY CABBAGE	30 in.
LATE CABBAGE interplanted with EARLY ENDIVE	24 in.
PARSNIPS	18 in.
LEAF LETTUCE, followed by RUTABAGAS	24 in.
NEW ZEALAND SPINACH	18 in.
EARLY ONION SETS	18 in.
TOMATOES interplanted with HEAD LETTUCE	18 in.
HEAD LETTUCE	18 in.
TOMATOES interplanted with EARLY CABBAGE	18 in.
ONION SETS	18 in.
TOMATOES interplanted with EARLY ONION SETS	18 in.
CARROTS, followed by LATE SPINACH	18 in.
BUSH BEANS, followed by TURNIPS	24 in.
SWISS CHARD	18 in.
BEETS, followed by ½ row HEAD LETTUCE—½ row RADISHES	18 in.
ONION SETS, followed by ½ row LEAF LETTUCE—½ row RADISHES	18 in.
EARLY CABBAGE, followed by BUSH LIMAS	18 in.
SPINACH, followed by CARROTS	24 in.
PARSNIPS	18 in.
½ row LEAF LETTUCE—½ row RADISHES, followed by BUSH BEANS	18 in.
LATE CARROTS for storing	18 in.
BUSH LIMAS	18 in.

POLE BEANS, set along north fence, or on poles on north line

ISSUED BY ILLINOIS STATE COUNCIL OF DEFENSE,
GOVERNOR DWIGHT H. GREEN, *Chairman*

24 19890—5m8M—3-42

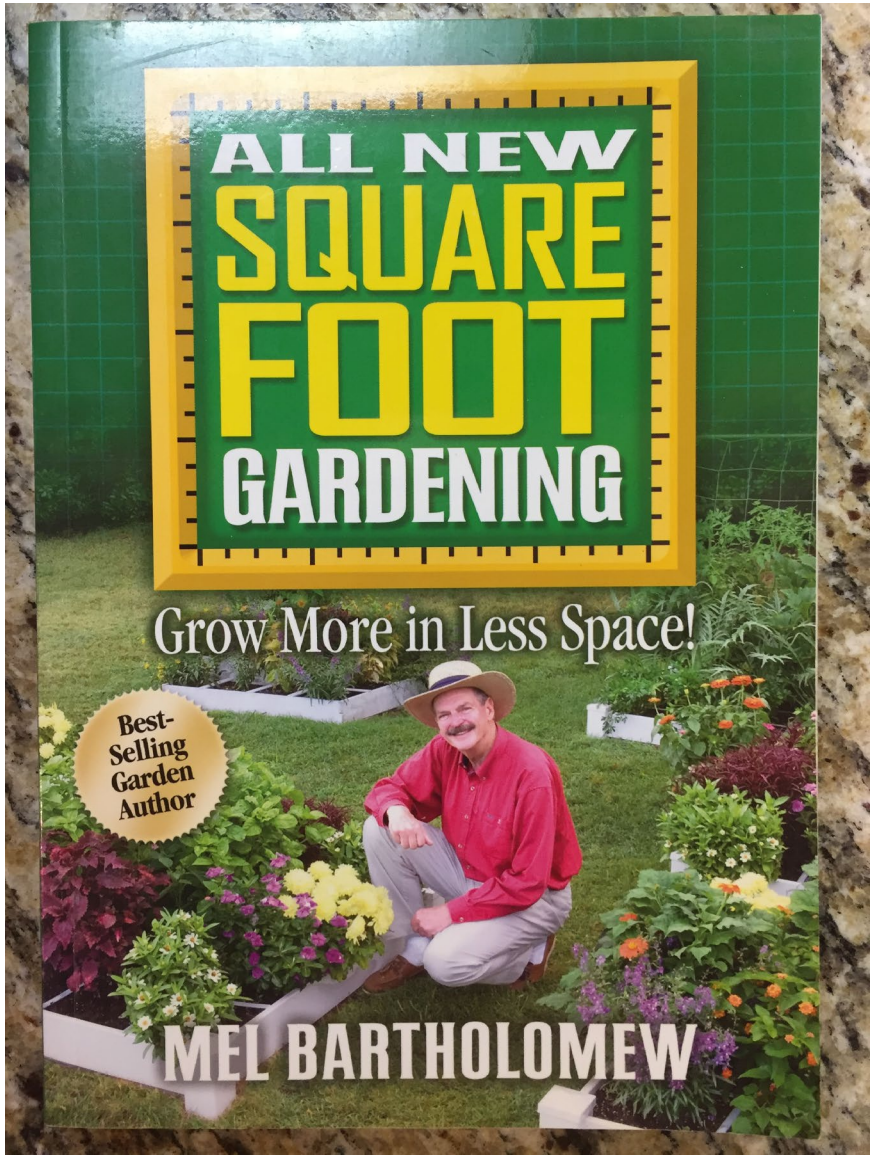
How much?

Vegetable	Seeds or Plants per 100-ft. Row	Estimated Yield per 100-ft. Row	Amount Suggested per Person
Asparagus	50 Roots	80-100 lb	5-10 Plants
Bush Beans Lima	1/2 lb.	30 lb.	5-10 ft.
Bush Beans Snap	1/2 lb.	50 lb.	15-20 ft.
Pole Beans	1/2 lb.	50 lb.	5-6 ft.
Beet	1 oz.	75 lb	5-10 ft.
Broccoli	50 Plants	80-100 lb.	3-5 Plants
Brussel Sprouts	50 Plants	80-100 lbs.	2-5 Plants
Cabbage	75-100 Plants	150-200 lb..	5-10 ft.
Carrot	1/4 oz.	100-150 lb.	5-10 ft.
Cauliflower	50-75 Plants	80 lb.	3-5 Plants
Celeriac	200 Plants	100-150 lb.	5ft.
Celery	150-200 Plants	200 lb.	10 Stalks
Chard	2 oz.	100 lb	3-5 Plants
Chinese Cabbage	1/2 oz.	200-300 lb.	3-10 ft.
Collards	1/2 oz.	80-100 lb.	5-10 ft.
Sweet Corn	4 oz.	100-150 lb	10-15 ft.
Cucumber	1 oz.	100-150 lb.	1-2 Hills
Eggplant	50-75 Plants	100-200 lb.	2-3 Plants
Kale	1/2 oz.	40-60 lb.	5-10 ft.
Kohlrabi	1/4 oz.	100 lb.	3-5 ft.
Lettuce	1/4 oz.	25-30 lb.	10 ft.
Mustard	1/2 oz.	30-60 lb.	5-10 ft.

How much?

Vegetable	Seeds or Plants per 100-ft. Row	Estimated Yield per 100-ft. Row	Amount Suggested per Person
Kohlrabi	1/4 oz.	100 lb.	3-5 ft.
Lettuce	1/4 oz.	25-30 lb.	10 ft.
Mustard	1/2 oz.	30-60 lb.	5-10 ft.
Okra	2 oz.	50-100 lb.	4-6 ft.
Onion (plants)	300-400 Plants	200 lb.	3-5 ft.
Onion (sets)	3-4 lb.	100 lb.	3-5 ft.
Onion (seed)	1/4 oz.	150 lb.	3-5 ft.
Parsnip	1/2 oz.	100 lb.	10 ft.
Peas	1 lb.	25-30 lb.	15-20 ft.
Pepper	50-75 Plants	75-100 lb.	3-5 Plants
Irish Potato	10 lb	100-200 lb.	50-100 ft.
Sweet Potato	75-100 Plants	80-100 lb.	5-10 Plants
Pumpkin	1 oz.	100-150 lb.	1-2 Hills
Radish	1 oz.	50 lb.	3-5 ft.
Rhubarb	25-30 Plants	150-200 lb.	3-5 Plants
Spinach	1 oz.	40-60 lb.	5-10 ft.
Summer Squash	1 oz.	150-200 lb.	2-3 Hills
Winter Squash	1 oz.	200 lb.	1-3 Hills
Tomato	50 (staked) 30 (groundbed)	500 lb.	3-5 Plants
Turnip	1/2 oz.	100-120 lb.	5-10 ft.
Watermelon	1 oz.	200-300 lb.	2-4 Hills

How much?


ALL NEW
SQUARE FOOT GARDENING
Grow More in Less Space!
Best-Selling Garden Author
MEL BARTHOLOMEW

Plans and Implementation

Planning and Implementation

- Planning is critical
  - Fresh Eating
  - Lump Sum Harvest
  - Select variates

- Start Seeds for:
  - Tomatoes
  - Peppers

Variety Selection is Very Important

aggie-horticulture.tamu.edu/vegetable/

Implementation - January

Implementation - January

- Tasks
  - Garden Bed Prep
  - Starting Seeds
  - Harden off Seedlings
  - Hold off on garden cleanup
  - Care for Winter Crops
- Can be Planted
  - Broccoli
  - Cabbage
  - Cauliflower
  - Kale
  - Lettuce
  - Peas
  - Radishes
  - Spinach

Implementation - February

Implementation - February

- Tasks
  - Finish Garden Bed Prep
  - Starting Seeds
  - Harden off Seedlings
  - Garden cleanup
  - Care for Winter Crops
- Can be Planted
  - Asparagus
  - Beets
  - Broccoli
  - Cabbage
  - Carrots
  - Cauliflower
  - Kale
  - Lettuce
  - Onions - sets
  - Peas
  - Potatoes – Valentines Day
  - Radishes
  - Spinach

Implementation - March

Implementation - March

- Tasks
  - Finish Garden Bed Prep
  - Starting Seeds
    - Indoors
    - Outdoors
  - Harden off Seedlings
  - Continue Garden Cleanup
  - Care for Winter Crops
- Last Frost
  - March 29 ± 45 Days

Implementation - March

- Cool Season
  - Beets
  - Carrots
  - Kale
  - Lettuce
  - Onions - Sets
  - Peas
  - Radishes
  - Spinach
  - Swiss Chard

- Warm Season
  - Beans, pole
  - Beans, bush
  - Cantaloupe
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini

- Hot Season
  - Tomatoes

Implementation - April

Implementation - April

- Tasks
  - Starting Seeds
    - Indoors
    - Outdoors
  - Continue Garden Cleanup
  - Care for All Crops

Implementation - April

- Cool Season
  - Beets
  - Carrots
  - Kale
  - Lettuce
  - Peas
  - Radishes
  - Spinach
  - Swiss Chard
- Warm Season
  - Beans
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini
- Hot Season
  - Corn
  - Eggplant
  - Okra
  - Peppers
  - Sweet Potatoes
  - Tomatoes
  - Watermelon

Implementation - May

Implementation - May

- Tasks
  - Start Seeds
  - Cold crop garden cleanup
  - Care for All Crops

Implementation - May

- Warm Season
  - Beans
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini
- Hot Season
  - Corn
  - Eggplant
  - Okra
  - Peppers
  - Sweet Potatoes
  - Tomatoes
  - Watermelon

Implementation - June

Implementation - June

- Tasks
  - Starting Seeds for Fall Crops
  - Care for All Crops
  - Increase water as Temperatures Rise

Implementation - June

- Warm Season
  - Beans
  - Cucumbers
  - Pumpkins
  - Squash, Summer
  - Squash, Winter
  - Zucchini
- Hot Season
  - Corn
  - Eggplant
  - Okra
  - Peppers
  - Sweet Potatoes
  - Tomatoes
  - Watermelon

Implementation - July

Implementation - July

- Tasks
  - Starting Seeds for Fall Crops
  - Care for Crops
  - Increase water as Temperatures Rise

Implementation - July

- Warm Season
  - Beans
  - Cucumbers
  - Pumpkins
  - Squash, Summer
  - Squash, Winter
  - Zucchini
- Hot Season
  - Corn
  - Eggplant
  - Okra
  - Peppers
  - Sweet Potatoes
  - Tomatoes
  - Watermelon

Implementation - August

Implementation - August

- Tasks
  - Starting Seeds for Fall Crops
  - Care for Crops
  - Increase water as Temperatures Rise

Implementation - August

- Warm Season
  - Beans
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini
- Hot Season
  - Corn
  - Eggplant
  - Okra
  - Peppers
  - Sweet Potatoes
  - Tomatoes
  - Watermelon

Implementation - September

Implementation - September

- Tasks
  - Starting Seeds for Fall Crops
  - Start Garden Cleanup
  - Care for Crops

Implementation - September

- Cool Season
  - Beets
  - Carrots
  - Kale
  - Lettuce
  - Peas
  - Radishes
  - Swiss Chard
- Warm Season
  - Beans
  - Cantaloupe
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini
- Hot Season
  - Corn
  - Eggplant
  - Okra
  - Peppers
  - Sweet Potatoes
  - Tomatoes
  - Watermelon

Implementation - October

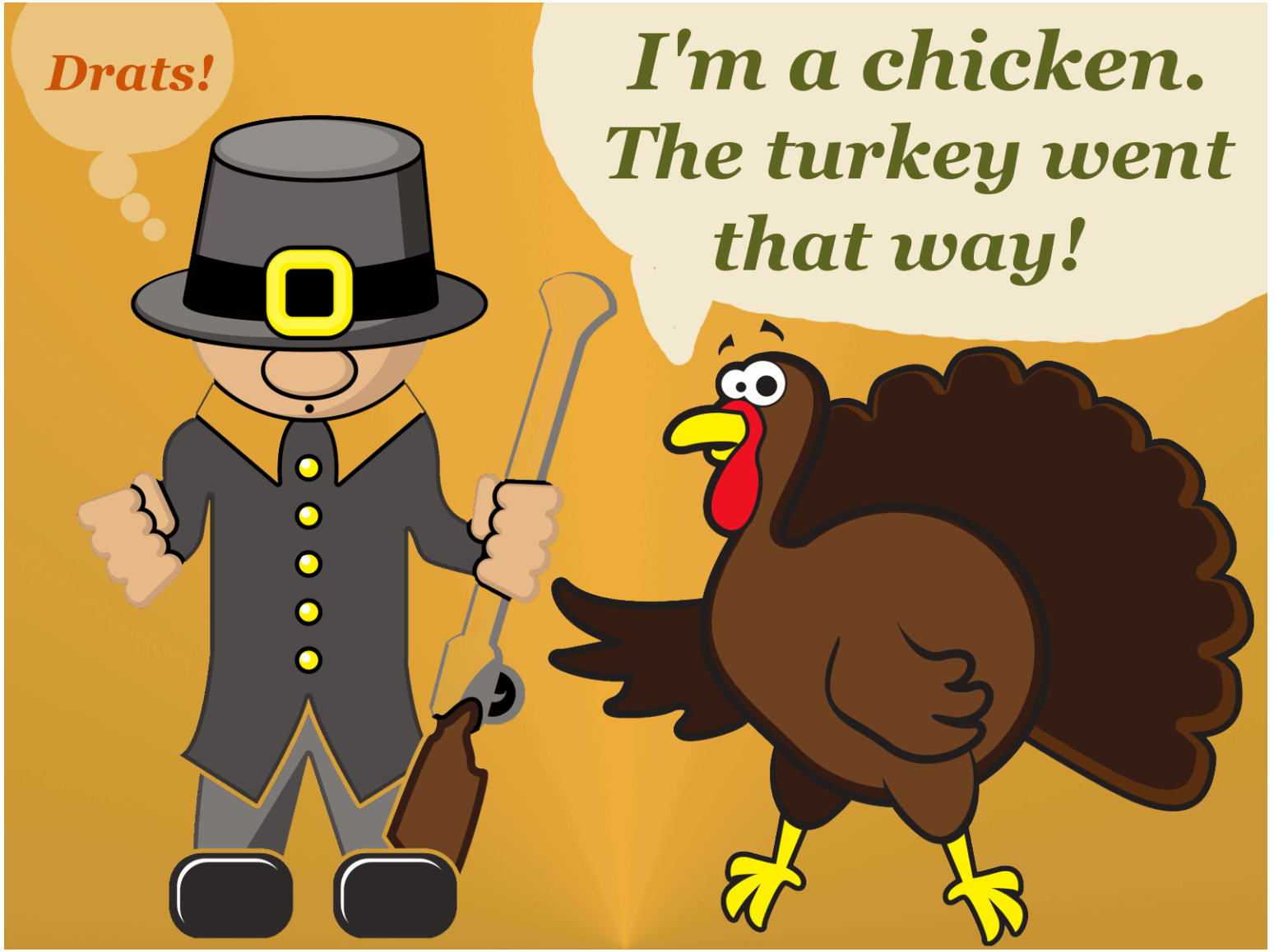
Implementation - October

- Tasks
  - Starting Seeds for Fall / Winter
  - Continue garden cleanup
  - Care for Crops
  - Watch the Weather Carefully

Implementation - October

- Cool Season
  - Beets
  - Broccoli
  - Cabbage
  - Carrots
  - Kale
  - Lettuce
  - Peas
  - Radishes
  - Spinach
  - Swiss Chard
- Warm Season
  - Beans
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini

Implementation - November



Implementation - November

- Tasks
  - Starting Seeds for Fall / Winter
  - Continue garden cleanup
  - Care for Crops
  - Watch the Weather Carefully
  - Start Planning for Next Year
  - Order Seeds
- First Frost
  - November 15 ± 30 Days

Implementation - November

- Cool Season
  - Beets
  - Broccoli
  - Cabbage
  - Carrots
  - Kale
  - Lettuce
  - Peas
  - Radishes
  - Spinach
  - Swiss Chard
- Warm Season
  - Beans
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini

Implementation - December

Implementation - December

- Tasks
  - Starting Seeds
  - Continue garden cleanup
  - Care for All Crops
  - Watch the Weather Carefully
  - Finish Next Years Plan
  - Order Seeds

Implementation - December

- Cool Season
  - Beets
  - Broccoli
  - Cabbage
  - Carrots
  - Kale
  - Lettuce
  - Peas
  - Radishes
  - Spinach
  - Swiss Chard
- Warm Season
  - Beans
  - Cucumbers
  - Squash, Summer
  - Squash, Winter
  - Zucchini

Implementation – Problem Solving

- Pest
- Disease
- Nutrients

Problem Solving – Crop Rotation

Good Rotation

Year 1

Spring = Tomato-Nightshade

Fall = Spinach-Amaranthaceae

Year 2

Spring = Bean-Legume

Fall = Mustard-Brassica

Year 3

Spring = Cantaloupe-Cucurbit

Fall = Onion-Allium

Bad Rotation

Year 1

Spring = Tomato-Nightshade

Fall = Irish potato-Nightshade

Year 2

Spring = Bean-Legume

Fall = Snow pea-Legume

Year 3

Spring = Cantaloupe-Cucurbit

Fall = Pumpkin-Cucurbit

Problem Solving – Crop Rotation

- Asteraceae
  - Lettuce
  - Jerusalem artichoke
  - Spinach
  - Sunflower
- Brassica
  - Broccoli
  - Cabbage
  - Cauliflower
  - Collards
  - Kale
  - Mustard
  - Radish
  - Turnip
- Cucurbit
  - Cantaloupe
  - Cucumbers
  - Gourds
  - Luffa
  - Pumpkin
  - Squash, Summer
  - Squash, Winter
  - Watermelon
  - Zucchini
- Grass
  - Corn
  - Rye
  - Wheat
- Legume
  - Beans
  - Pea
  - Peanuts
- Nightshade
  - Eggplant
  - Okra
  - Peppers
  - Potatoes
  - Tomatoes
- Others
  - Beets
  - Carrots
  - Sweet Potatoes

Problem Solving - Squash

- **Squash Bugs**

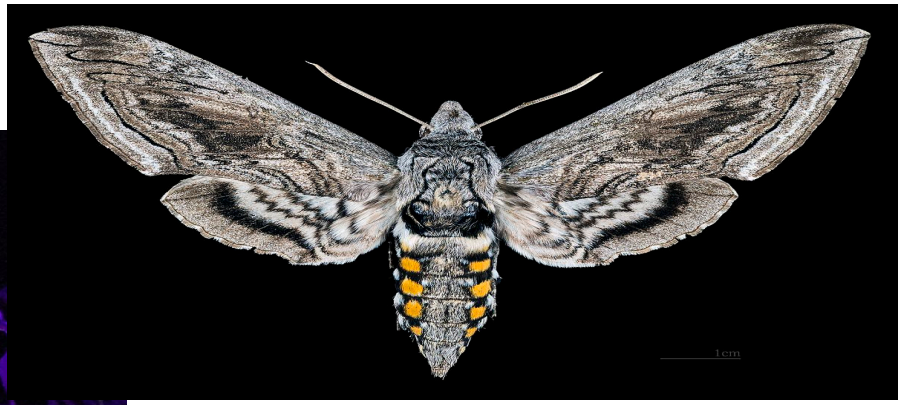
- **Squash Vine Borer**

Problem Solving - Squash

- **Blue Hubbard Squash**
- **Nasturtiums**
- **Attract Spiders**
  - **Crimson Clover – living mulch**
  - **Low growing ground covers**
- **Plywood + bucket of soapy water**
- **Cover First 4” of Stem in Aluminum Foil**

Problem Solving - Tomatoes

- **Hornworms**

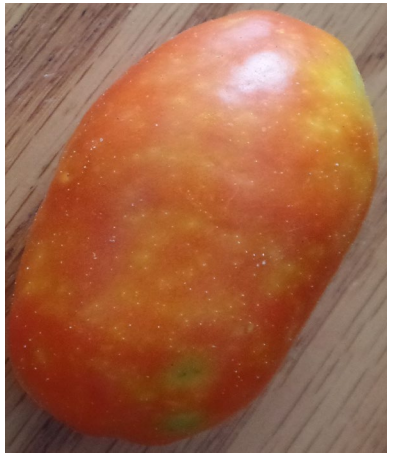


- **Verticillium Wilt**

Problem Solving - Tomatoes

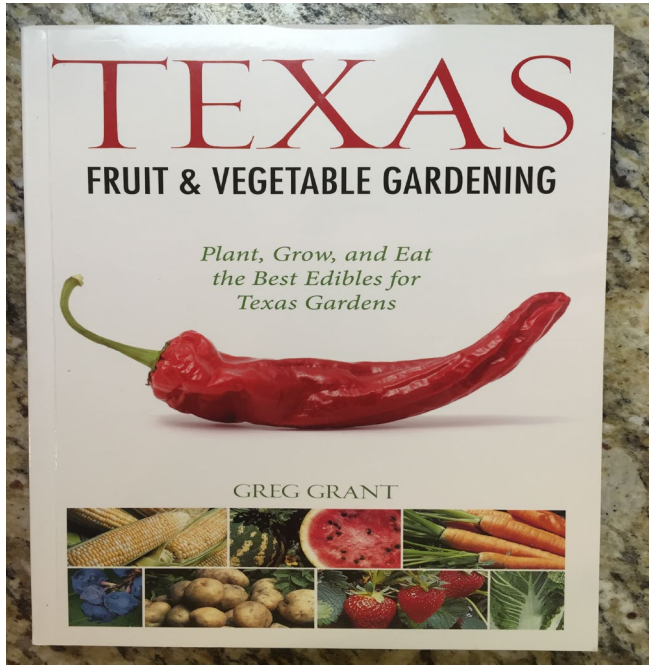
- **Cover crop of Oats or Winter Rye**
  - **Verticillium Wilt**
- **Radish and Mustard – Trap crop**
  - **Flea Beetle and Harlequin Bugs**

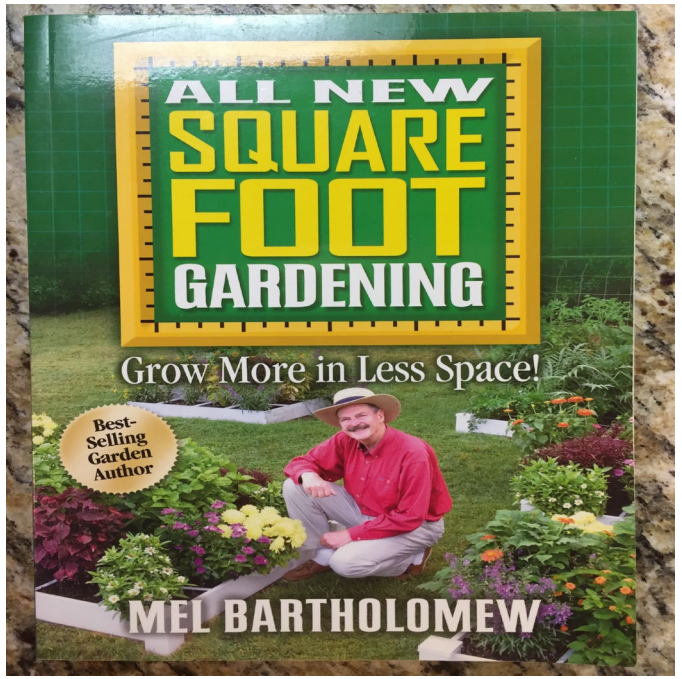
- **Basil – Life Cycle Interrupt**
  - **Hornworms and Armyworms**

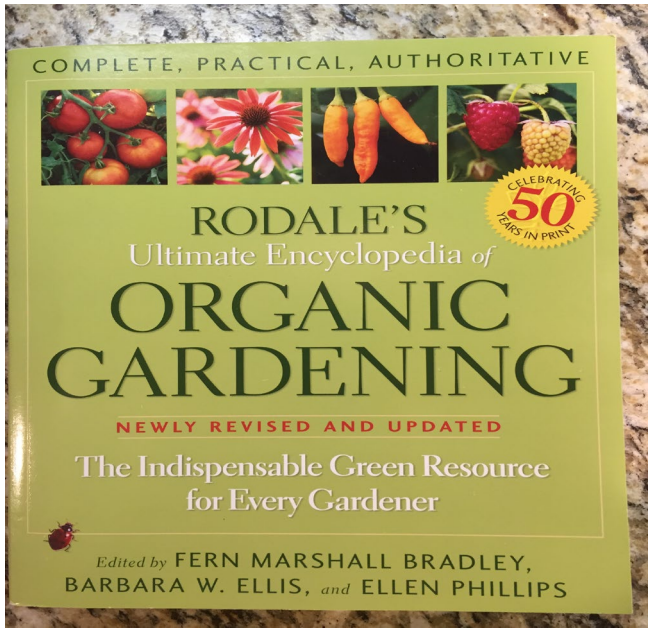


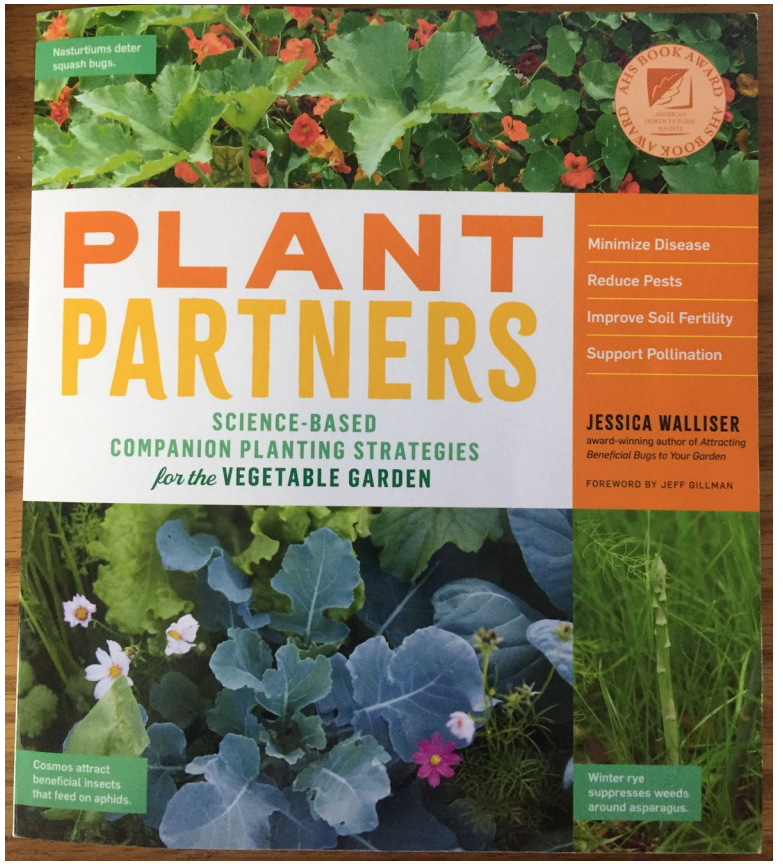
- **Basil - Masking**
  - **Thrips**

Keep studying









Resources

- https://aggie-horticulture.tamu.edu/vegetable/

- www.bcmgtx.org
- https://www.youtube.com/@bigcountrymastergardeners9314
  - Big Country Master Gardeners
- Facebook
  - Big Country Master Gardeners

QUESTIONS?

www.bcmgtx.org

Big Country Master Gardeners on Facebook

Big Country Master Gardeners on YouTube

325-672-6048 (extension office)