

SURVIVAL GARDENING NOTES



IS A SURVIVAL GARDEN
REALLY WORTH IT?

LIBERTY UNDER ATTACK
PUBLICATIONS

SURVIVAL GARDENING NOTES

Published by *LIBERTY UNDER ATTACK PUBLICATIONS*,
December 2020

This book is covered by a BipCot NoGovernment License. Re-use and modification is permitted to anyone EXCEPT for governments and the bludgies thereof.

Further Use Permission: Please feel free to use, re-use, distribute, copy, re-print, take credit for, steal, broadcast, mock, hate, quote, misquote, or modify this book in any way you see fit. Sell it, make copies and hand it out at concerts, make t-shirts, print it on flying disks, or do anything else because intellectual property is a State based haven of the weak, the stupid, and those lacking confidence in their own ability.



Publisher Information:

Website: www.libertyunderattack.com

Contact: shane@libertyunderattack.com

Interior Design By: Shane Radliff

Cover Design By: Miriam Zachariah



LIBERTY UNDER ATTACK

PUBLICATIONS

tell your story

LOOKING FOR YOUR NEXT READ OR LISTEN?

1. **Adventures in Illinois Law: Witnessing Tyranny Firsthand**
by Shane Radliff (Audiobook/Anthology)
2. **Adventures in Illinois Higher Education: Communist Indoctrination** by Shane Radliff (Audiobook/Anthology)
3. **An Illusive Phantom of Hope: A Critique of Reformism** by
Kyle Rearden (Audiobook/Anthology)
4. **The Production of Security** by Gustave de Molinari
(Audiobook)
5. **Are Cops Constitutional?** by Roger Roots (Audiobook)
6. **Argumentation Ethics: An Anthology** by Hans-Herman Hoppe
et al (Anthology)
7. **Just Below The Surface: A Guide to Security Culture** by Kyle
Rearden (Audiobook/Paperback)
8. **Sedition, Subversion, and Sabotage, Field Manual No. 1: A
Three Part Solution to the State** by Ben Stone
(Paperback/Audiobook)
9. **#agora** by anonymous (Paperback/Audiobook)
10. **Vonu: A Strategy for Self-Liberation** by Shane Radliff
(Paperback)
11. **Second Realm: Book on Strategy** by Smuggler and XYZ
(Paperback/Audiobook)
12. **Vonu: The Search for Personal Freedom** by Rayo (Special
Paperback Reprint/Audiobook)
13. **Vonu: The Search for Personal Freedom, Part 2 [Letters
From Rayo]** (Paperback)
14. **Going Mobile** by Tom Marshall (Paperback/Audiobook)
15. **Anarchist to Abolitionist: A Bad Quaker's Journey** by Ben
Stone
16. **Brushfire, A Thriller** by Matthew Wojtecki
(Paperback/Audiobook)
17. **VonuLife, March 1973** by Rayo et al (Paperback – 11/2020)
18. **Ocean Freedom Notes** by Jim Stumm, Rayo, et al (Paperback –
12/2020)

VIEW THEM ALL AT LibertyUnderAttack.com!

SURVIVAL GARDENING NOTES

“Beauty surrounds us, but usually we need to be walking in a garden to know it.” – Rumi

SURVIVAL GARDENING NOTES

1) Best varieties: These are the varieties I consider my standards, all are high yielding:

- Rust proof golden wax snap beans
- Detroit dark red beets
- Danvers half long carrots
- Straight eight cucumbers
- Early white Vienna kohlrabi
- Kentucky wonder pole beans
- Small fry hybrid cherry tomatoes

2) Resistance to cold: Broccoli is very cold resistant, can be picked until snow lays on it, maybe even afterward. Dick Geis mentions (in REG #7) that his cabbages have survived weeks of freezing weather in the open garden. The whole cabbage family is very cold hardy & can also be planted early in the spring. All root crops can be left in until the ground freezes.

3) Resistance to wet: Carrots are very susceptible, will start rotting after only a couple days of standing water. Red beets have the highest resistance to wet I have seen. Also parsnips & sugar beets will hold up well.

4) They call me Dr. Compost: I have an arrangement with my local food co-op by which they separate spoiled produce from other garbage & I bring it home & compost it in my yard to use in my gardens.

5) Cheapest seeds: I've compared vegetable seed prices in several catalogs & the cheapest overall seems to be Burpee Seed Co, Warminster, PA 18991. You can ask for their free catalog. Burpee also sells very nice trees, & bushes, vines, flower seeds, & gadgets.

6) Bare root trees: If you want to plant a large amount of one kind of tree, like 100, or 1000, or a whole forest, you can buy dormant bare root stock from Mussar Forests, Indiana, PA 15701. Sample price: 100 7 inch Norway spruce, \$15. Generous count, good quality trees.

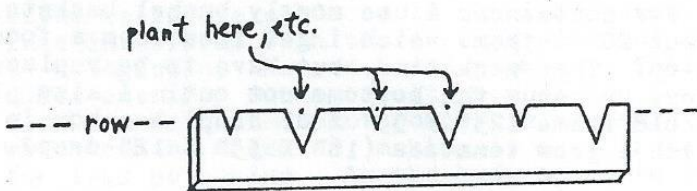
7) Self-mulching: This is what I call my planting technique which is similar to the French intensive method. I plant a group of 5 rows just 5 inches apart, then leave a wider space, usually 15 or 20 inches between these groups.

After the seed germinates, & I can see all 5 rows, I give the bed one thorough weeding. I do almost no more weeding in that bed all year. The plant tops grow together, shade the soil, & no weeds grow among them. This technique will work with Kohlrabi & most roots like carrots, red beets, sugar beets, parsnips. Also these plants will self-mulch: bush beans, cucumbers, squash, zucchini, but I plant them in a different pattern. Onion will not self-mulch because their tops are not bushy enough.

8) Time needs for gardening: I have seen the foolish opinion that vegetable gardening is too time consuming for the average person. Since I have a garden at my parents', 5 miles from my home, I get a good feel for how much time I spend gardening. It's too far for me to putter in the garden at odd moments. My custom is to stop at my parents' on most Sundays (but not every week). I might work 2 or 3 hours in my garden there on Sundays, never longer. And after July, that time is almost entirely devoted to harvesting. This modest time commitment yields a successful garden that produces about as much as I can eat myself of the vegetables I grow. A disorganized person could waste endless time in garden, or any other activity, but I use techniques like self-mulching to pare my garden labor to a minimum.

Planting Jigs:

Rapid, accurate planting of a garden is made much easier by the use of planting jigs. Here are 2 good ones. The 1st was used on "Crockett's Victory Garden," a fine TV gardening program that's shown on PBS stations. It consists of a board with notches cut at regular measured intervals.



Use whatever measurements you find convenient. Space the notches for the closest you would ever plant. Then you can get a wider separation by planting only in every 2nd or 3rd

SURVIVAL GARDENING NOTES

notch. Alternative large & small notches makes counting them easier. This jig is especially good for transplanting because the board lies to one side, out of the way of the plants.

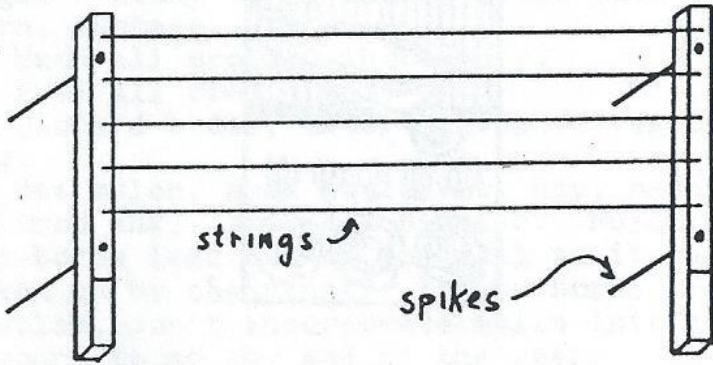
I have developed another jig that I like, especially for planting seeds. It consists of 2 boards: 1 x 1 is good, though size is not critical. Starting 15" up from the bottom, drive 5 box nails partway into each board to serve as stakes. Drill an undersized hole to take each spike or you'll surely split the boards. Then tie white cotton strings onto the box nails running from one board to the other as shown. The strings should be as long as your garden rows. E.g. if you plant in 14 foot rows, the strings should be 14 feet long so they stretch across the whole garden. Stretch the strings taut then use a dark wax crayon to make marks on each string at 5" intervals on all the strings, all the way from one board to the other.

To use this jig, push on board down flat against the ground, using the spikes as stakes to hold it in place. Then move the other board to the other end of the garden, carefully untangling the strings & stretching them tight, & push the 2nd board into the ground on its spikes. This instantly marks out 5 parallel, straight rows 5 inches part.

To plant small seeds like carrots, I use my hoe handle to make 5 furrows by running it along the strings. Then I pull the jig up to get it out of the way, & I plant. To plant larger seeds like beans, I use the crayon marks on the strings & put 3 seeds at each mark which spaces them 5" apart in the row. To get a wider space between rows, I skip strings as appropriate.

I plant most crops, especially roots, in groups of 5 close rows 5" apart, with 15" between each group. On the planting jig, I use the 15" from the 1st box nail to the end of the board to lay off the space between groups.

Another nice feature is that this jig stores compactly. When I'm finished I bring the 2 boards together with the strings neatly doubled over between them. Then I gather the strings into a bunch & wind them around the two boards. Winding the strings holds the boards together & prevents them from getting into a tangled mess during the off season.



CONTAINER GARDEN – OLD RECORDS SMASHED

I usually plant vegetable gardens at 2 or 3 different places. At the house where I live in the city, the backyard is almost entirely paved. So for the past 2 years, I've planted a container garden here. I have enough experience now to draw some tentative conclusions.

For containers I use mostly bushel baskets, about 20 of them, which I get free from a food co-op. They work fine, but have to be replaced every year because the bottoms rot out. I also plant a cold frame (25" X 33" X 8" deep) & a box in which I grow tomatoes (16" X 53" X 12" deep).

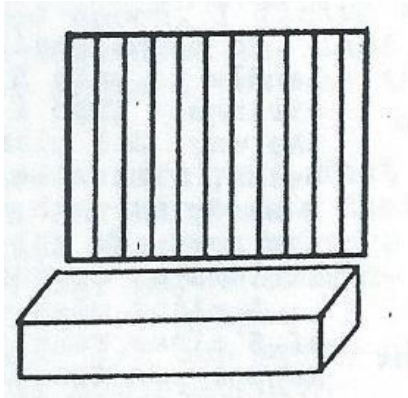
I keep thorough garden records, including count & weight of everything harvested, & have done so since I began gardening at age 13 in 1957. For all these years I have been attempting to grow the highest weight per square feet (I call it yield density) for each vegetable. I keep a list of the record highest yield densities I have ever grown for each vegetable and each year I race against my old records & try to top them. This year I set new records in the container garden (as compared with previous results from normal gardens) for tomatoes, kohlrabi, carrots, & onion sets grown from seed. Cucumbers were also successful, but not a record.

The results for these 5 crops were as follows:

veg	yield		area	yield density		old record
	count	lbs	sq ft	lbs/sq	ft	yld dnsty
				lbs/sq	ft	lbs/sq ft
tomatoes	71	18.6	5.89	3.16		2.55
kohlrabi	68	28.2	12.7	2.22		1.58
carrots	31	5.75	1.40	4.11		1.51
onion sets	78	1.19	1.40	0.85		0.29
cucumbers	14	6.63	2.79	2.38		3.40

Some comments on these:

1. Tomatoes – Variety: Burpee spring giant hybrid, planted seeds in the house on 4/5, transplanted 10 plants to the tomato box on 5/22 to form a single line with plants 5” apart. I pruned each plant to form 1 stem & tied them to “stakes” made by stretching rope across a wooden frame. Pruned tomatoes yield fewer fruits per plant than those not pruned. And these pruned plants yielded noticeably smaller fruits than other plants that I raised from the same packet of seed & grew in another garden without pruning, I presume because of constricted roots in the tomato box. Yet despite this, when the plants are squeezed as close together as in this box, the yield density exceeds that of tomatoes grown in any other way.



2. Kohlrabi – Burpee prima hybrid, 1st planting in cold frame on 3/26, 2nd in a bushel basket on 4/30. Transplanted to fill 5 bushel baskets & the cold frame with a spacing about 4” apart both ways, 12 plants to a basket.

3. Carrots – Danvers half long from Henry Field Seed & Nursery. This was old seed maybe 4 or 5 years old, good germination anyway. Planted in 1 basket on 4/7 in 3 rows about 5” apart. Initially thinned to stand about 1” apart. When carrots grew big enough to use (on 8/7) I thinned again by pulling every other carrot so they stood about 2” apart. These I left until I harvested them all on 10/26. Not only large but very fine looking carrots, too. Note how this yield density for carrots smashed the old record. Not only that, but this is the highest yield I have ever achieved for any vegetable, the old all-vegetable record being the 3.40 I note above for cucumbers.

SURVIVAL GARDENING NOTES

4. Onion Sets – Burpee yellow globe hybrid, seed planted to grow sets to use next year. Planted on 4/30 in 1 basket in 3 rows 5” apart. Not thinned. Nice small sets, should keep well through the winter.

5. Cucumbers – Burpee bush champion, 3 seeds planted in each of 4 spots in each of 2 baskets. Later thinned to 1 plant per spot, giving 8 plants total. This is a good yield, but not a record. I did better in the 1979 season, when I grew a different variety: Burpee straight eight, in the same way in 2 baskets. Yield against last year was 16 weighing 9.3 lbs. That gave a yield density of 3.33, very close to the old record. However, this isn’t quite true because vine crops, like cucumbers, run out of their baskets & spread over the pavement, so the area they occupy really is more than just the area of their baskets.

Soil mixture: In this container garden I used growing medium consisting of 1 part sandy loam topsoil, 1 part homemade compost, & 1 part peat moss. You need peat moss or something similar to hold water, & even then these containers should be watered every day that it doesn’t rain or else they dry out too much. I fertilized heavily on top with lime & organic fertilizer with an analysis of 3-7-5 made from dried blood, phosphate rock & greensand.

Here are some brief comments on other vegetables I have tried in containers:

1. Other vines – Luffa sponges & muskmelons failed because the climate is too cold for them here. Squash & zucchini: plants grew well but squash vine borers killed them before any fruit matured.

2. Greens – All the salad greens that I have tried grow well in containers, including: leaf lettuce, mustard, spinach, New Zealand spinach, kale, garden cress, celtuce, & lamb’s quarters (a “weed” that I use in salads).

3. Other successes – I have harvested small amounts from Jerusalem artichokes, strawberries, garden huckleberry, & amaranth.

4. Failures – Onions grown from sets generally rotted. Radishes & rutabaga failed to head & went to seed. Cabbage was eaten up by bugs, Chinese cabbage bolted to seed after I let the basket dry out for 1 day under the hot sun. Garlic dried off & rotted away.

Comparisons wanted: I have often wondered how my yield density figures compare to results achieved by other gardeners, but I have never seen anyone else's figures. I have no idea whether my numbers are good or run-of-the-mill or what. If any of you have any such statistics, I'd love to see your data. Or are there any gardening books where such numbers have been published?

LEAD IN THE SOIL

Lead is everywhere. It is such a practical industrial material that we can find it in many manufactured products: gasoline, lead-based paints, waterpipes, color-printed food wrappers, color photos in magazines & newspapers, some ceramic glasses, & often in the closing seam of tin cans.

Lead from some of these sources finds its way directly into food & water. Dust from leaded paints & gasoline exhaust is ending up in soil. Gardening in soil with high lead content may mean that the fresh vegetable grown contain dangerous amounts of lead. Playground dust containing lead may be inhaled or eaten by children.

Lead is poisonous, of no use to the human body. Taken in small amounts, the body will rid itself of this poison. But taken in larger amounts & regularly, it can cause serious injury to the brain & kidneys. It can sometimes cause death.

WHAT IS LEAD?

It is a soft, greyish-white metal. Many different compounds of lead are used in industry.

HOW LONG HAVE PEOPLE USED LEAD?

For thousands of years. It was used in Egypt, Greece, & Rome in paint pigments, water pipes, & pottery glazes, much the same as today.

HOW LONG HAS IT BEEN KNOWN TO POISON PEOPLE?

For at least 2000 years. Romans were poisoned due to drinking wine made in lead pots. In 18th century America & England the cause of lead colic was traced to lead cider vats & materials used by tinkers & printers.

WHY THEN DOES LEAD CONTINUE TO BE USED?

It melts at a low temperature which makes it easy to use. It does not corrode when exposed to weather, air pollution, or other materials. It can be salvaged & reused. It is durable, versatile, & cheap. It is used in paint because it creates a tough film when dry.

HOW DOES LEAD GET INTO SOIL?

Many existing houses are decades old & have been repainted many times. The paint scraped off when a house is repainted is often left on the ground where the paint chip break down & lead is washed into the soil by rain. Lead doesn't go away. It stays put for several hundred years. Even rain washing against a building will wash some lead into the ground.

Sometimes lead is discovered in soil nowhere near a building. Then one finds that a building once stood there or that it was the site of an orchard. In the 1890s lead arsenate was introduced as an insecticide for fruit trees. It's use in orchards was discontinued in the 1950s, but the toxic residues remain in the soil.

Some lead comes from car exhaust, from the tetraethyl lead additive used in some gasoline. Car exhaust puts 1000s lbs of lead into the air each year.

WHAT DOES LEAD DO TO PEOPLE? WHO IS AFFECTED?

Children under 6 are most affected by lead because their bodies are still growing. Lead is more easily absorbed during periods of rapid growth. Pregnant women & nursing mothers should also take great care as the developing child is extremely susceptible to lead damage. Lead crosses the placenta & will reach an infant through breast milk.

The child with lead poisoning may develop learning problems, may become listless or hyperactive. Lead produces anemia & can damage the kidneys & the brain. In severe cases it may cause blindness, mental retardation, & sometimes death. Children under 7 should have their blood tested each year.

Adults may also be poisoned by lead, & may experience such symptoms as anemia, headaches, & nausea.

There are 3 main targets of lead in the body: the bones, the kidneys, & the brain. Lead deposits in bone marrow & newly formed bone tissue. Red blood cells are produced in the bone marrow, and lead interferes with the incorporation of iron into hemoglobin, the red blood pigment. This produces anemia. During faulty hemoglobin production a substance called protoporphyrin accumulates which can be measured, making it a reliable test for lead poisoning. As the body tries to get rid of excess lead, it is either deposited in bone or excreted by the kidneys in urine. During excretion

SURVIVAL GARDENING NOTES

the kidneys may be severely damaged from these lead deposits.

By far the most severe effect of lead is on the brain & these effects are irreversible. The child's brain, because it is still developing, is more vulnerable than the adult's. Early signs of brain damage are irritability, clumsiness, or listlessness. At higher lead levels, the effects may progress to coma, convulsion, & death. In adults lead poisoning causes less brain damage, but affects peripheral nerves.

Although traditional studies have dealt mostly with high levels of lead, recent studies have shown that even at low levels, lead can have adverse health effects. Many researchers now suggest a relationship between lower lead exposures & learning disabilities.

LEAD IN THE GARDEN

Before planting a garden, have the soil tested for lead. Plants do take up lead from the soil. The higher the lead content in the soil, the higher the lead content will be in the plant. Leafy greens such as kale, chard, lettuce, mustard, collards, & herbs collect the lead in the leaves we eat. Beets, turnips, & carrots collect lead in the edible root. Fruiting vegetable such as tomatoes, eggplants, squashes, peas & beans also concentrate lead in their leaves, but the part of the plant that is eaten is usually low in lead.

If a garden is set out near a highway or busy street, air-borne lead can be a problem. Airborne lead can settle on leaves & cannot be entirely removed by washing.

GOOD GARDENING PRACTICES FOR LOW LEAD LEVEL GARDEN: AIR BORNE LEAD

1. Locate garden away from the road if possible. Plant sunflowers or morning glories, etc. or build a fence to block the air-borne lead from car exhaust.

2. Don't plant leafy greens in the garden, or if you do, plant them as far away from the street as possible.

3. Crops that are ok to grow near the street are root crops (carrots, radishes, beets, onions, turnips, etc.), fruiting crops (eggplants, tomatoes, squash, melons, cucumbers, peppers, etc.) & tight heading or protected crops (sunflowers, corn, cabbage, etc.).

4. Wash all produce thoroughly.

5. Peel all root crops.

6. Discard older, outer leaves of vegetable before eating.

7. Use mulch, such as leaves, hay, newspaper (NO colored ink), or black plastic. Mulch will keep air-borne lead out of the soil so it can't be taken up by the plant. If air-borne lead is a problem, don't incorporate mulch into the soil. Discard it at the end of the year.

SOIL-BORNE LEAD:

1. Add lime to bring pH up to the 6.5 to 7.0 range. When soil has low levels of lead a neutral pH may help to inhibit lead uptake by plants.

2. Add organic material – compost, kitchen vegetable wastes, manure, etc. – as often as possible.

3. Have children under 7 tested for lead in their blood.

SURVIVAL GARDENING NOTES

4. Refrain from growing leafy green vegetable & root crops if you or your children show higher than normal levels of lead.
5. Give high preference to fruiting crops.

FOR HIGH LEAD LEVEL GARDEN:

1. Grow ONLY fruiting crops, & flowers & ornamentals.
2. Replace soil with clean topsoil if possible.

FOR DANGEROUSLY HIGH LEAD LEVEL GARDEN:

1. Remove & replace soil or grow ONLY flowers, ornamentals & grass.

2. Container garden in clean topsoil using pots, trash cans, etc., or dig a 1' x 3' bed (of any length), line with plastic, fill with clean topsoil & plant.

(Adapted from the booklet: "LEAD IN THE SOIL, A GARDENER'S HANDBOOK" prepared by the Suffolk County Extension Service, available free from Cooperative Extension Service, Univ. of Massachusetts, Amherest, MA 01003).

Addendum: from JOURNAL OF THE NEW ALCHEMISTS #6, page 65: "Preliminary tests in Boston of tree fruit grown in soil with 3000 ppm of lead showed no lead in the fruits."

INDOOR GARDENING

Jim B. reports: "I planted those 'patio' indoor tomatoes from Burpee last Aug. They came up about 3" high & sat. In Jan., I put them in individual pots 6" or 8", & gave them some fertilizer. That commercial potting soil I planted them in didn't have anything to feed the plants. Mixed up some liquid feed & boy did they grow! So I gave them a slug of the fish juice every week or so & they are doing great. Have harvested 27 already. Most about ping pong ball size. And at least 57 more are set with blossoms still showing up. That's on 5 plants. Probably would have done better if I would have thought to feed them sooner.

Also have been through four 8" pots of black seeded Simpson lettuce this winter. That worked very well too. They are in a WEST window.

***WARNING – DON'T USE MILORGANITE!** Milorganite is a popular organic fertilizer made from Milwaukee's sewage sludge. Unsuspecting gardeners have been using it for years. Just recently it has been made known that Milorganite is contaminated with heavy metals, such as mercury, lead, cadmium, etc. which are deadly poisons if they get into food. Bags of Milorganite now carry a warning that it should only be used on lawns & flower gardens. Furthermore, I've seen the recommendation that any land that has EVER been fertilized with Milorganite should be tested for heavy metals before it's used to grow food crops.

My feeling is that Milorganite should not be used at all. You never know when you might want to use your flower gardens or your lawn to grow food crops, especially if we experience a food shortage. Or if not you, maybe the next owner of your property will want to grow a vegetable garden where you now have grass or flowers or shrubs. And he won't suspect that you've used a harmful fertilizer there. Poisoned land is a hell of a legacy to leave behind you. So **DON'T USE MILORGANITE** at all.

Many other cities & towns sell or give away their sewage sludge to gardeners. It's a good soil conditioner, IF it isn't contaminated. The only way to know whether it's safe is to look at recent test results, or get a sample tested yourself, for heavy metal, for pesticides, especially chlorinated hydrocarbons, PCBs, & for other poisons such as arsenic,

SURVIVAL GARDENING NOTES

etc. If there's any doubt at all, don't use sewage sludge on your land.

How do these things get into sewage sludge? The heavy metals mainly come from industrial waste. You can assume that the sewage sludge from any industrial city contains heavy metals until proven otherwise. Secondly, people flush every damn thing down their toilets, thinking that it just goes away. But it doesn't go away; it ends up down at the sewage treatment plant, & finally goes into the sludge. Finally, other contaminants are picked up by rainwater that runs into sewers. This includes lead from car batteries lying in a gutter, rat poison put out in an alley, pesticide cans dumped somewhere, lead paint peeling off old houses, etc. It all gets into the sewage. So be careful. Don't put sewage sludge on your land unless you're sure it's safe.

*TOMATO CAGES – Here's a happier note: A new technique for staking up tomato plants has been popularized this year by "Crockett's Victory Garden," the TV program on PBS. You make a cylindrical cage.

18 to 24 inches in diameter, out of 4 inch mesh fencing, & anywhere from 3 to 5 ft high. Put one of these cages around each tomato plant just after you transplant it. The plant will grow up inside & support itself on the wire with no further help from you. The wide mesh allows you to reach your hand inside the cage to pick the ripe tomatoes. With this device the tomatoes will be held up off the ground where they'll stay clean & won't rot, & yet you don't have to do any tying up of plants or pruning. You get all the benefits of staking up tomatoes with none of the work, a real boon to a busy, or lazy, gardener. Also, the plants won't spread over as large an area as unsupported plants so you can plant them closer & get a higher yield from a given area.

And these cages are durable. If you make them out of heavy galvanized wire, they'll probably last as long as you will. The only slight disadvantage is that they are somewhat bulky if you want to store them in a garage or attic over winter. A good mesh to use for cages is the kind used to reinforce concrete, which you can get from a building supplies shop. As a guide to how much to buy, 5 feet of fencing will make one cylindrical cage about 18" in diameter. You will find that the cages need to be supported firmly with solid stakes driven maybe 12" into the ground & wired or tied to each cage. Without the stakes, as the plants grow tall &

the tomatoes get heavy, the cages will get top heavy & fall over. I used tomato cages this year for the 1st time, after trying many other systems in past years. I love it & intend to use this method from now on.

*POTATO TOWER – Tarl Cabot reports: “This year I’m trying potatoes in a tire tower. Plant potatoes, when vines are up, put a tire around & fill with mulch, dirt, etc. When vines grow up higher, add a 2nd tire (the leaves should always reach the sun when tire & soil are added). Continue on up to 6 or 8 tires. Water freely. In Fall, knock tower over & gather a bushel of potatoes – it says here. We’ll see.”



*STORING PRODUCE – I have found a very simple way to store many veggies, especially roots. I wash the dirt off, & let them dry overnight. Next day, I put them into a plastic bag & seal it with a wire-twister. I store these bagged veggies in the refrigerator, & I find that most hard roots will keep all winter as long as they stay cold. In fact, I used the last of the parsnips & carrots that I grew in 1978 & stored this way in Aug. '79, just as the new crop was coming in.

LETTER FROM DIOGENES AND JIM STUMM'S RESPONSE

JULY 1981

Matrix calculation problems such as the one you posed in LIVING FREE #13, p. 10, ("Record Yield Densities") are not difficult using the compute language APL. In fact, they are literally child's play.

I enclose my results to the problem you posed. My source is "Composition of Foods", Agricultural Handbook No. 8 available from:

Superintendent of Documents
U.S. Printing Office
Washington, DC 20402


Stock number 001-000-000768-8, catalog number A1.76: 8/963 for the revised 1963 edition. About \$10.00 I guess.

Grains & nuts are probably better for protein than vegetables. The problem with just looking at protein is that a protein source must contain all essential amino acids or it is almost valueless. Milk contains all essential amino acids, but peanuts, although they have protein (& also contain the most carcinogenic (cancer-causing) substance known to man), do not contain all essential amino acids. One needs to eat a mixture of legumes & nuts to get all amino acids. Also, nucleic acids are important - & these are best obtained from onions & mushrooms & especially from sardines.

COMMENTS FOR DIOGENES

Thanks for your input. I rounded off your numbers to 3 digits for the sake of clarity. Although I'm sure the nutritional content of cherry tomatoes must be the same as regular tomatoes, (they only differ in size), I left them out anyways because the regular ones had a higher yield/area. I omitted your figures for common beans because clearly they refer to dried beans, not the fresh snap beans that I grow. Too bad you couldn't find data for sugar beets. Their calorie content is probably high since they contain 20%+ sugar.

Looking at these numbers we see that squash is highest in both protein density & caloric density & leaf lettuce is lowest in both. But squash figures should be adjusted (lowered) to take into account their inedible rinds. Lettuce has little nutritional value. I've heard it said, as a comment on the strangeness of the US food system: Calif. ships water to the Northeast in the form of lettuce.



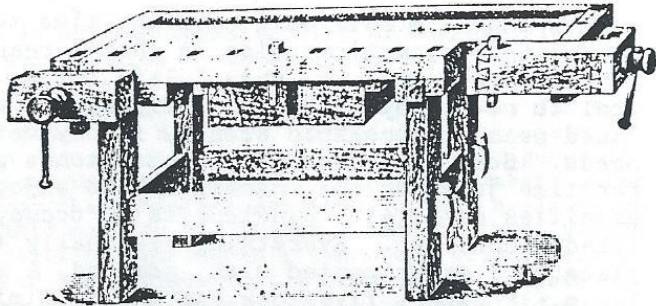
veg	A yield kg	B area sq ft	C protein gm/kg	D calories per kg	E water %	F protein density gms of p/sq ft	G caloric density cal/sq ft
cucumbers	4.81	3.1	9	150	95	14.0	233
tomatoes	48.1	41.5	11	220	94	12.7	255
squash	7.08	6.3	14	500	85	15.7 *	562 *
cabbage	13.8	12.6	13	240	92	14.2	262
carrots	28.5	39.4	11	420	88	7.95	303
kohlrabi	16.1	22.5	20	290	90	14.3 *	208 *
red beets	14.1	20.8	16	430	87	10.8	291
parsnips	8.40	15.5	17	760	79	9.21	412
onions	36.1	69.7	15	380	89	7.77	197
leaf lettuce	5.86	13.9	13	180	94	5.48	75.8

* true value is lower than this due to inedible rinds & peels
 Columns A & B from LF #13, p10
 Columns C, D, & E from "Composition of Foods"
 Columns F & G thank to Diogenes & his computer

5

As I understand it, all essential amino acids must be present in the stomach at the same time in a certain correct proportion, not equal amounts, for them to be fully utilized. If not, the amino acid in shortest supply will be a limiting factor, & the excess of other amino acids will not be absorbed, but will be excreted, wasted. Actually, hens eggs are the most nearly perfectly balanced protein source. The best source of info I know of on the subject of mixing foods to obtain correct amino acid proportions is "Diet For A Small Planet" by Frances Moore Lappe. For example, grains & legumes (except soybeans) are both in complete protein sources. But the essential amino acids lacking in each group is found in abundance in the other. So if you put the 2 together in the same meal, you get complete protein, usually much cheaper than meat. Typical examples of this food groups mixing are a rice & beans dish, or a bean spread such as peanut butter (peanuts are legumes, not nuts) on whole wheat bread.

SURVIVAL GARDENING NOTES



Carpenter's bench. *Spiers*

Can you tell us more about that “most carcinogenic substance” in peanuts? It seems like every time I turn around I hear something else touted as the “most poisonous/carcinogenic/dangerous substance known to man.” I have heard that a high %, like 25% or so, of raw peanuts are contaminated with a fungus that is highly unhealthy. But I don't eat raw peanuts anyway; don't like the beany taste. Roasting peanuts kills the fungus. Is that what you are referring to, or something else?

LETTER FROM JAMES E.W. AND JIM STUMM'S RESPONSE

Now that I'm retired I have the time to pursue a more active participation in what I read.

About 10 years ago, when I laid out my general goal to retire by 1.1.82, I'd figured on a land based peasant household economy for my metabolic needs. Some small stock & a subsistence garden; part-time jobs for the wherewithal to enjoy the amenities of life; & handicrafts to occupy my idled hands, etc. Everything eventually fell into place as I experimented with, adapted, & adopted ideas. However, livestock can & does limit my freedom of movement. I'd like to phase out this aspect in favor of a vegetarian diet – that is, if I can devise one with a sufficient protein balance & flavor.

Tell you what. How about a swap of ideas? You can act as interlocutor & pose questions for those of the vegetarian skills & we who have some basic concepts of an independent lifestyle. I'd personally be happy to share my successful ideas for a source of income in return for a diet that can be evolved from a garden – a subsistence garden.

My questions:

1. I have 3 acres of rough stony loam 2nd growth timber, about a half acre of which now has decent garden soil. This is a frost pocket as well. My lifestyle is vigorous & physical. What kind of a crop would be best cultivated on this land for my needs?

2. I store by means of root cellar & dehydration, canning only where necessary, & I use my small greenhouse to supplement my winter craving for greens. My question is: Which crops would be best suited to this kind of storage? I've experimented with some vegetarian recipes & have found them somewhat bland. I like to sit down to a meal & get up feeling as if everything I wanted was there. OK. In the middle of winter with the ground frozen down 2 feet, & no source of food other than my root cellar, shelves & drums of dehydrated food, & the greenhouse, & a need to get out & shovel away snow or saw food, what kind of a menu & recipes will answer for this requisite?

SURVIVAL GARDENING NOTES

Since I'm asking questions, & a fair exchange is no robbery, I'll ask another: I retired within 10 years of my decision to do so & I'm hardly a wealthy man. If I can do it, anyone else can following the same strategy. Does anyone else want to follow suit?

COMMENTS FOR JAME E.W. FROM JIM STUMM

Welcome to the discussion. I don't see my role so much as an interlocutor but rather more as a conduit: Send your questions & answers, comments & information to me, & I'll distribute it to all LF readers. I would like to hear from anyone who has thoughts to share in answers to your questions. Meanwhile, I'll put it in my 2 bits.

I, too, have been doing much thinking & experimenting in the direction of a subsistence garden. The problem seems to be that the crops that are easiest to grow are no great shakes nutritionally. Salad greens are easy, but you could starve while stuffing yourself with salads. In the North, root crops seem easy to grow & easy to store. They're in the medium range nutritionally, though still too high in water, & too low in calories & protein.

Here's a simple, very effective method for storing root crops: Wash & dry, put in small plastic bags & close top with a twister or by tying the plastic. Store at refrigerator temperatures. I find that most hard roots (carrots, beets, parsnips, etc.) will keep for a year or so in this way – if the temperature never goes outside the 35F to 45F range. The plastic apparently keeps the humidity at the correct high level.

The only vegetable sources of high protein that I know of are grains & nuts & beans. Nuts grow on trees (peanuts are really beans), which means a many-years wait until they get big enough to bear. Put for one who is beginning a 10 year retirement plan, planting a grove of mixed nut trees might be a good move. For quick results, hazelnuts (filberts) form a small tree or bush that will begin bearing a high protein crop in just a couple years. If you don't like the taste of hazelnuts, perhaps you could find recipes that disguise the taste & still get the protein value.

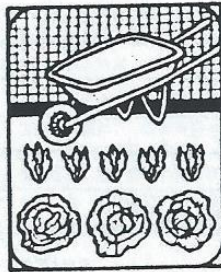
Small scale growing of grains, dried beans (including soybeans, the only bean with complete protein), & dried field corn, is a possibility that I haven't tried myself. I wonder about the economics of it, mostly the cost of labor time. Such

things are so cheap, especially if bought in large quantities, that it seems hardly worth it to grow them yourself, unless you're concerned that commercial supplies might become unavailable. And grains & beans can be stored at room temperature for years. With a mill you can make flour from any grains or beans & make all kinds of bread very inexpensively, & such bread can be the basis of your diet.

Some prices: Buying at wholesale through a food co-op I get 50 lb. sacks of these items at these prices: rolled oats – \$12.50, soybeans – \$12.00, popcorn – \$13.50, brown rice – \$15.00, etc. With such prices available, it hardly seems worth it for me to go to all the trouble to grow my own, provided I can earn at least a little money to lay in these whole grain supplies that form the bulk of my diet.

I figure it this way: Suppose it would take me 10 hours of labor to produce 50 lbs of soybeans. That would be like working for \$1.20/hour since I can buy the soys for \$12. It would be better to do something else to earn money, if I can make more than \$1.20/hour, & buy the soys instead. If the situation changes, if the prices goes way up or the product becomes unavailable, then I would have to grow my own. To prepare for that possibility I should learn how to grow grains & beans, acquire the skills & the tools, & then put these preparations on the shelf until the necessity to use them arises.

To store bulk grains, etc., I put them into one gallon glass jars that I scrounge from a restaurant, screw on the covers just hand tight, & put them into the cardboard boxes that the jars came in which keeps them dark & makes them easy to stack up. I think I've kept some such things at room temperature in this way for 3 years or more with no problems worth mentioning.



REPLY TO FALCON FROM JIM STUMM

See LF12p.8 – I have never thought of figuring garden yields per month. That doesn't seem too important since I don't do succession planting. It didn't work very well the few times I tried it. Generally, I think of each vegetable as having reserved its garden space for the whole growing season, so whether it uses that space for 3 months or 8 doesn't really matter. Any space vacated early may be planted to a green manure crop.

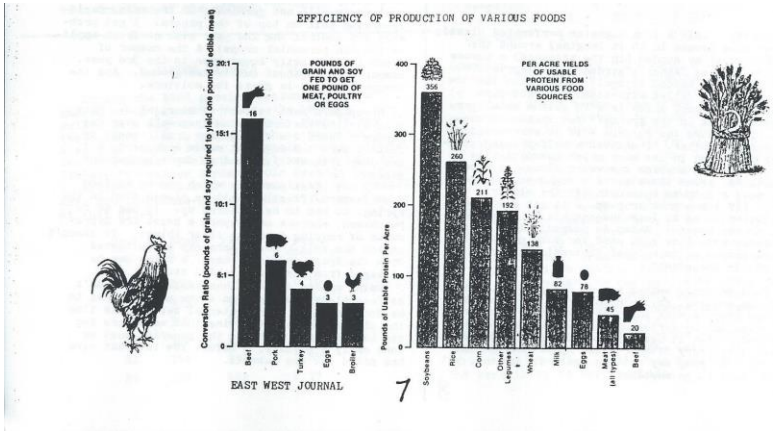
There are a couple other factors that do seem worth considering. One is that the harvested portions of a certain vegetable contain inedible parts. At one extreme, I eat almost all of the weight of tomatoes that I record (except for maybe a bit of stem). But kohlrabi must have its outer skin peeled, & the peel makes up a significant fraction of the weight harvested. I could weigh some samples of edible & inedible parts of various vegetables & devise a table giving the average percentages of the edible part of the weight of each vegetable – but I haven't done that yet.

Another related issue is nutritional value. It's easy to grow a huge weight of tomatoes, but they are almost all water. There are other vegetables which are not so prolific, which might give more food value, even though less weight, per square foot. This would be important to know if you actually have to survive on the yield of a garden. If your growing space was limited, you would want to grow the highest nutritional value per square foot, not just the highest weight.

I think the best nutritional factors to compare would be calories & protein. It would be useful to know how many food calories per square foot I could grow by planting various vegetables. Also, I wonder how many oz. of protein per square foot I could grow. I could compute conversion factors for multiplying by the weight of each vegetable harvested to calculate calories/square foot & protein/square foot, but I haven't done it yet, & it would probably be a little difficult. I'd start with published nutritional content lists, adjust for % inedible, & adjust for any loss in cooking (if that vegetable is normally eaten cooked).

Intuitively, my guess is that roots such as carrots, kohlrabi, & sugar beets might be high yielders in calories/square foot, while most grains would probably

outrun most vegetables in oz. of protein/square foot, even though the yield of grain in weight/area would be low.



SURVIVAL GARDENING NOTES

RECORD YIELD DENSITIES

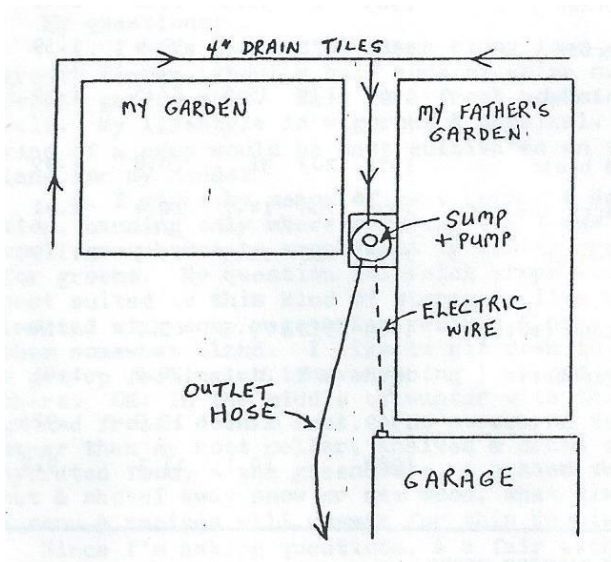
This is my comprehensive list of highest yields per unit of area in various vegetables that I have grown over the years in gardens in western NY. These are my best results for ordinary gardens, but for 4 vegetables: tomatoes, kohlrabi, carrots, & onion sets grown from seed, I have exceeded these figures in a container garden planted in bushel baskets. For more on the container garden & further explanation of yield density see LF10p.7. Some of these yields can still be considerably improved, others seem to be near the optimum that I can hope to achieve. I can say at least this much: up to the yield densities listed here are certainly possible in this region because I have done it.

veg	year	yield count	lbs	area sq ft	yield density lbs/sq ft
cucumbers	1963	17	10.6	3.1	3.40
tomatoes	1969	341	105.9	41.5	2.55
squash	1965	10	15.6	6.3	2.49
cabbage	1963	17	30.3	12.6	2.41
carrots	1980	877	62.7	39.4	1.59
kohlrabi	1969	135	35.5	22.5	1.58
red beets	1978	203	31	20.8	1.49
cherry tomatoes	1978	706	14.7	10.4	1.41
parsnips	1978	112	18.5	15.5	1.19
onions (sets)	1969	332	79.5	69.7	1.14
sugar beets	1978	178	21.1	20.9	1.01
leaf lettuce	1969		12.9	13.9	.925
bush beans	1980		10.1	11.1	.912

MY GARDEN DRAINAGE SYSTEM

I have had a problem with flooding in my main garden at my parent's house, due to poor drainage, as I mentioned in LF20p.10. Here's more on how I solved that problem.

At 1st I dug a trench around the outside perimeter of my garden with a deeper hole at one corner. When excess water was present, I'd pump it out to the street using a recycled washing machine pump driven by an electric motor. This was a non-automatic system which was a bother to set up & I couldn't run it in the rain or the motor would get wet & short out. Also, the pump was not self-priming & it was hard to get the water flowing, i.e. to get all the air out of the lines. Once it was flowing, though, water poured out like Niagara. I used this system for a couple years. In time, the ditches tended to become wider & shallower, swallowing up more of my garden. And I couldn't deal with a continuous rain lasting several days because I couldn't pump until the rain stopped. So in 1979 I got fed up with this system & installed a new, improved version.

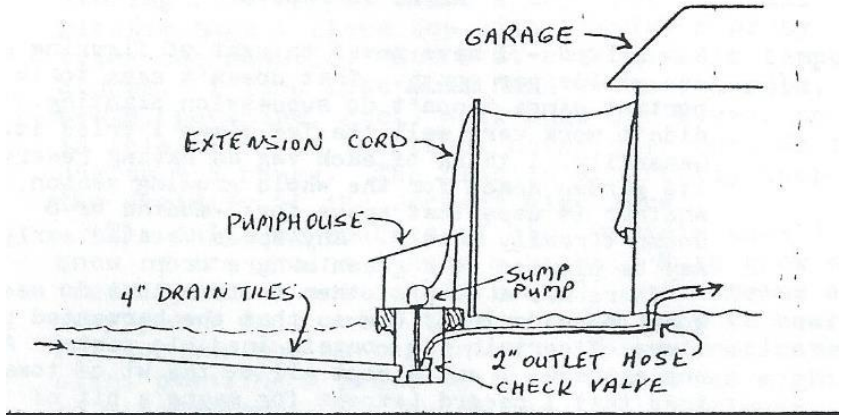


First, I laid 4 inch diameter perforated plastic sewer pipe (comes in 10 ft lengths) around the perimeter of my garden (in the trenches) & across the foot of my father's garden (see diagram). This pipe was bedded in small stone then the

SURVIVAL GARDENING NOTES

trenches were filled with topsoil. This pipe slopes to a sump, which is a 10 gallon metal garbage can sunk in the ground. Two inches of the can rises above the surface & it is surrounded by a concrete collar. I mounted a self-priming electric sump pump in the sump which automatically starts pumping anytime the water rises. A wooden pumphouse, about the size of a doghouse, covers the sump & pump to keep rain off the electric motor. (If I buy another pump, I'll get a submersible, which would be less susceptible to water damage in the motor.) Water is pumped into a 2 inch diameter hose (the kind used for sump pumps & for above ground swimming pool filters), that carries it out to the street.

This drainage system solved the problem. It can run anytime, day or not, rain or shine, & it can keep up with the heaviest rains. In spring it dries out my garden up to 4 weeks earlier than formerly. Yet it uses little electricity because it doesn't run very often. After April showers end in May, the pump may not run again for months, yet it's ready to go anytime.



LETTER FROM JAMES H. AND JIM STUMM'S RESPONSE

LETTER FORM JAMES H. (May 1981)

I dump most of my piss around the garden – on edible stuff after the harvest season & on flower beds during spring & summer. That regulates the liquid input more or less. It couldn't be done in the city, but for those of us who live in the boonies, it's the best way to avoid excessive liquid in the tank.

Let me put in a plug for newspaper mulches. I've used them for years. Even heavy cardboard boxes are rotten enough to plow down (or till down) after one year. I do about a quarter of an acre, using sections of the paper (don't tear it up) & a minimum of 6 or 8 thicknesses (sheets). If on a slope, "shingle" from the top down, so runoff will pass under the sheets & soak in instead of running over the surface of the paper.



It takes a lot of time. However, weed growth is virtually nil. A thin layer of dirt scattered with a shovel, or a layer of weeds or etc. debris, holds it all in place. I start as soon as the early crops are up (or anytime, if working with perennials), early in the morning before the wind rises. 2 or 3 hours a day as long as the paper lasts. The only things that

SURVIVAL GARDENING NOTES

come up through the papers (through the overlapping joints between the sheets) are morning glories (bindweed), & a few other perennial vines such as dewberry & honeysuckle. These can be pulled off every couple of weeks for control. Grasses & annual weeds are completely controlled. In addition, seeds of annual weeds will not germinate in the thin, rapidly-drying soil on top of the papers. I get probably 90% control the 2nd year with no fresh application (in perennial crops), & the number of weeds is distinctly lower even in the 3rd year, compared to adjacent cultivated ground. And the newspaper mulch is great for moisture.

Newspapers seem to control deer, also. They must dislike the crackle as they walk over the papers. There's a strong game trail across my field & through the adjacent woods & orchard, & I see deer frequently, but they don't bother the garden.

Why not black plastic, which can be applied much faster? Plastic can't be plowed down in the spring, it has to be gathered up. It has to be purchased, whereas newspapers & boxes are byproducts of reading & buying other things. It doesn't enrich the soil. Newspapers can be collected from the trash on pickup days, & boxes can be salvaged from dumpsters behind stores.

Using papers on more than half an acre wouldn't be feasible for one person – the papering has to be done during a short interval between the time the plants emerge & the time that weeds are too big to smother. That is, the papering must be done early & quickly, & before the 1st heat wave has dried out the subsoil.

Late frosts took about half of my strawberries (half an acre planted). Otherwise, not a great deal of damage. Local orchardists lost up to 90% of tree fruits. Got 2 hives of bees now. Going to plant 3 acres of buckwheat soon, for bees, weed control, & green manure. Soil texture here is good, but fertility is fair to poor. Lots of poison ivy, dewberries, sumac, etc. invading. Got to plow it all up & control the weeds or lose the field.

COMMENTS FOR JAMES H.

Piss can be used in the city. Piss in a suitable jar in the house. Empty daily or so (discretely) on compost pile or fruit trees. There's no noticeable odor. What the neighbors don't know won't disturb them.



I couldn't use newspaper alone for mulch the way you do. Here it would blow away. A little dirt on top wouldn't hold it down. The entire edge of each sheet would have to be well covered, because if the wind can get a "finger" under a sheet at any point, it will pick it up & dump off whatever is on top. So I use wired crates on top of newspapers. These are the crates that certain produce is shipped in such as cucumbers & green peppers. By untwisting a couple wires, you can pop off the ends. Then the other 4 sides will fold out flat. I get them free from a food co-op. I put down newspaper, black & white only, & put crates on top to hold them down. The wind sometimes lifts even these crates, but then [again] this is one of the windiest parts of the country. Rocks placed here & there hold down any corners of the crates that want to stick up & the let the wind get under.

This paper mulch is also good if you have a long term plan to convert an area of virgin sod into a garden. Put a thick paper mulch down in spring before the weeds get very high. Or later mow down the weeds & then mulch. Keep the mulch on for a year or 2, adding more here & there to smother any weeds that manage to get through. Then rake off the mulch & plow or till, or till the mulch down in place. The sod will mostly have rotted away underneath, reducing your sod-busting to a fraction of the effort.

GARDEN RESULTS – 1982

During the 1982 growing season, in my main garden at my parents' house, the harvest resulted in a higher yield density than in any of the 5 years I have gardened there previously, i.e. 1.37 lbs/sq foot for the whole garden. (Note: for more about "yield density" see previous articles: "Container Garden – Old Records Smashed" in LF10p.7, & "Record Yield Densities" in LF13p.10.) Here are the whole-garden numbers for my 6 years at that site:

year	area sq ft	yield lbs	yield density lbs/sq ft
1977	298	57	0.191
78	313	186	0.594
79	319	211	0.661
80	360	420	1.17
81	360	251	0.697
82	360	492	1.37

9

The poor results in 1977, 78 & 79 were due to flooding. Although this garden is dry most of the time, it's wet in early spring, & then later it tends to flood if we have a sustained rainy period lasting 2 days or more. After a couple days of standing water or thoroughly saturated ground, crops being rotting. I had such killing floods on 8/14/77, 9/17/78 & 8/29/79.

To combat this water problem, 1st I dug a trench around the perimeter of my garden, but that didn't help much because the water had nowhere to run to. And my parents didn't much like the open ditch. After the flood of '79 which ruined a fine stand of carrots (& much more) for the 3rd time in 3 years, I decided to get really serious about an effective drainage system. The system I put in consists of 4 inch diameter perforated plastic sewer pipe around the outside of the garden, slopping down to a sump, with an electric sump pump to move water out to the street. The pump doesn't run very often except in spring & during summer "monsoons." In winter we take it out & store it in the basement. This

drainage system solved the water problem & it accounts for most of the higher yields since 1980. Also, by drying out the garden earlier, the pump lets me plant up to 4 weeks earlier than formerly. In addition, I'm improving the condition of the soil by putting a huge amount of leaves on the garden each fall. I rototill them in & by spring they are almost all rotted away.

Part of the reason for the high numbers this year was because I planted only high yielding crops in this garden. (I didn't plan it that way; it's just how it worked out.) The individual crops & results were as follows:

veg	area sq ft	yield lbs	1982 yield density lbs/sq ft	old record yield density
sugar beets	39	75.4	1.93	1.01
cucumbers	57	94.9	1.66	3.40
onions	78	32.7	0.419	1.14
sweet potatoes	85	28.8	0.339	na
tomatoes	101	260.0	2.57	2.55

Comments: New record high yield density figures were set for sugar beets & tomatoes. YD figures for cucumbers & sweet potatoes may be a little overstated because these vine crops may have spread beyond the area allotted to them (which would give them a lower YD than the figure calculated). Actually this is my best YD for cucumbers left to spread along the ground. The 3.40 record was for 3 plants tied up on a trellis, which I don't do anymore because it's too much work.

And this was the best results in many years for onions, best since moving away from where the old record was set. This year's variety - stuttgarter type (yellow) - seems to grow well in this wetter garden. This is the 1st year I grew sweet potatoes, centennial, from Henry Field. Don't know if I'll grow them again. Yield is on the low side & they're hard to harvest, like strip mining by hand. They're probably better to grow in the South. Tomatoes: achieved the same high YD with no-work cages as I have formerly achieved only with laborious stake & prune method. I attribute this high yield to the varieties: early girl & red champion, both from Henry Field. The 2nd especially is very prolific.

SURVIVAL GARDENING NOTES



GROWING, STORING, & USING YOUR GARDEN SURPLUS

As a vegetable gardener with 30 years of experience, I know that it's difficult to grow the right amount of vegetable at the right time. It always seems to be feast or famine with a garden. If you grow a vegetable successfully all, every now & then you'll have a year when you get a huge surplus. And then you'll need to know how to use it in large amounts, or how to store it, before it goes bad.

Over the years, I've found solutions to some gardening problems (though the amount I don't know is still vast), & here I'll pass along some of what I've learned from experience concerning veggies that I have grown successfully. If your garden is in a different climate with different soil conditions, your experience may not be the same as mine. Tell us what works for you. I'll talk about one vegetable per issue until I run out of useful things to say.

Carrots – An easy vegetable to grow. Not usually bothered by bugs or diseases. One key to growing them successfully is that carrots must be thinned to stand 1 or 2 inches apart in the row. I hate thinning, so I try to plant the seed very thinly to begin with, more sparsely than seems right at planting time. I know that, if the seed is viable, it will turn out to be spaced about right when the plants come up. The variety I like best is Danvers half long, a short fat variety with a heavy yield.

I plant carrots in rows 5 inches apart, so that the tops grow together & shade in the ground between the rows (I call that "self-mulching"). That stops most weeds from growing. I weed carrots once after they have come up well enough so I can see the rows. And that's about all the weeding I have to do in the carrot patch. Carrots germinate unusually slowly. But then they are planted as early as you can get into the garden in spring, one of the 1st things. Maybe the cold soil at that time of year is the reason for their slow early growth.

I begin harvesting & using carrots as soon as some of them are barely big enough to use, thinning size. Early on, I thin as I harvest. That is, I look along the row for a bunch of carrots that need to be thinned & I pull out the biggest one in that bunch to give the others room to grow. I leave alone the

SURVIVAL GARDENING NOTES

isolated bigger carrots that already stand one inch or more apart from others. I continue thinning bunches in this way as I use carrots over the next weeks, unless all carrots stand at least about one inch apart. Later I pull every other carrot so they stand 2 inches apart.

Carrots are not bothered by frost & can be left in until just before the ground freezes (end of November around here). Carrots are, however, very susceptible to excess water. I have one garden that sometimes floods, & I have found that carrots begin rotting if there's standing water on them for more than 24 hours, which is faster than for most other vegetables. (Beets, on the other hand, are about the most resistant, & can go several days under standing water without damage.) Consequently, I now plant carrots in above-ground boxes with drain holes in the bottom which can't possibly flood no matter how much rain we get. Carrots take very well to growing in small containers, however, when I say "small" I mean the soil in the container should be one foot or better yet, 2 feet deep.

Storing & Using – I store carrots very simply. About Nov. 15th, I pull out all carrots that remain in the garden, tear off the tops, & wash off the mud. When the carrots are dry, I put them in small plastic bags, twist-tie shut, & put them in the refrigerator. Most of them will keep that way all winter. (Most hard roots can be stored the same way.) A few may rot, so I go through the bags every few weeks to clean them up & salvage what I can from any that are starting to go bad. My priority is to use damaged ones, & the smallest ones first.

The dishes in which I use most of my carrots are:

1) Jello – Up to one cup of grated carrots can be added per small package of jello, at the stage when jello is half-hardened.

2) Soup – Diced carrots boiled with other vegetables in stock are one of the basic ingredients I use in home-made soup.

3) Carrot Cake – Grated carrots in a carrot cake recipe seem to almost disappear during baking & make a food that very much like cake & not at all like a cooked vegetable.

GROWING, STORING & USING YOUR GARDEN SURPLUS, PART 2

Kohlrabi – This member of the cabbage family seems to be not well-known, but in my family we've grown it for decades. The part that you eat is a fist-sized enlargement of the stem. It has the texture of a potato with a little of the flavor of cabbage.



Like the entire cabbage family (includes broccoli, Brussel sprouts, cauliflower, & kale), kohlrabi is very cold-hardy & can be planted as soon as the ground can be worked in the Spring. Just put in a bit of a row any old way because it will be transplanted later. There are 3 varieties: early white Vienna is the old standard, & there's a purple that takes a little longer to develop & a hybrid, neither of which seem noticeably better than early white.

As soon as plants are big enough to handle, with about 3 sets of leaves on each, they should be transplanted to stand 4 or 5 inches apart. They transplant easily & grow well in containers. When transplanting, try to save as much of the root as you can, with a clump of dirt on it. But if you have to pull apart plants with entangled roots, you may end up with bare roots. That's ok. Flood with water after transplanting. Shield from hot sun, or transplant on a cloudy day or in the evening. Even so, kohlrabi transplants will probably droop & wilt down flat. Don't worry about it. In 3 or 4 days they should be standing again, which means they've survived transplanting.

There are several bugs that bother the cabbage family, but the only one I have much trouble with here is a small,

SURVIVAL GARDENING NOTES

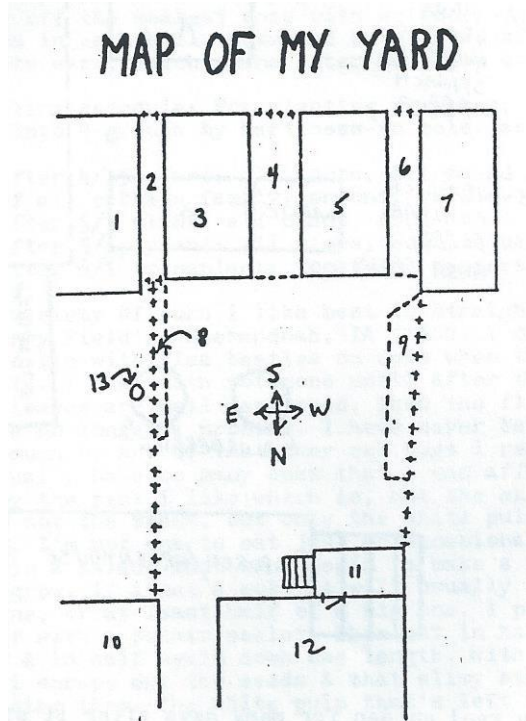
white moth that lays eggs on the leaves that hatch out into a cluster of blue-green things that lay in one place on the leaves &, I suppose, suck the sap. They are a real problem on cabbage or Brussel sprouts where they get on the part that you eat, but it's less of a concern with kohlrabi since you cut off the leaves when you harvest anyway. (The solution for cabbage, etc. is to cover plants with netting or screening to keep the moth away from the plants.) These insects induce kohlrabi to curl their leaves closed around them, but they don't noticeably stunt growth or cause any great damage, so I don't worry about it much. When I get a heavy infestation on kohlrabi, which may happen several times during the season, I wash the bugs off the leaves by getting up close with the hose & blasting them off.

Using & Storing – Kohlrabi can be used when the heads get to be 2 or 3 inches in diameter, but there's no harm done if they get quite a bit bigger than that. You cut off the root & the leaves, then peel off the outer skin with a potato peeler. Cube or slice the insides; boil until soft; & eat with butter or margarine melted on top. The other way I use kohlrabi is boiled in soup, where they are a lot like potatoes.

The last kohlrabi should be harvested just before a killing frost. If left in the garden after a frost, they rapidly develop an off-taste. Kohlrabi can be stored in plastic bags in the refrigerator for a couple weeks, but not longer. They won't keep that way all winter like most hard roots will. Not only that, but they go bad in a bad way. Not like carrots that go bad from the outside in so you can see bad spots at a glance. Instead kohlrabi develop black areas deep inside without any visible changes on the surface, so you have to cut them up into little pieces to find the bad parts. So I use up any Autumn excess of kohlrabi quickly by adding them to soup. It might be possible to preserve them by cutting up & freezing, but I haven't tried that.

BACKYARD FOOD GROWING

Introduction: In May 1978, I published an article in ODD MAN OUT #2 about how I planned to use my backyard for food growing. This is an update. I'll reprint portions of that 1978 article, followed by comments on how things look now, 11 years later.



1978 - This is a scale drawing of my backyard. The solid lines enclose buildings. The lines made up of pluses indicate fences. And the dashed lines show the limits of the asphalt pavement that covers most of the backyard. The numbers label the areas they are written in. 3 & 5 are our 2 one-car garages. 1 & 7 are garages in neighbors' yards. 2, 4, & 6 are narrow alleys between garages. 8 & 9 are strips of soil among both fences which are available for planting. 10 is the neighbor's house & 12 is my house. 11 is a porch with steps leading down & a door into my back hall. 13 indicates a black walnut tree in the neighbor's yard which has some branches hanging over our side of the fence. You see that the

SURVIVAL GARDENING NOTES

back of the house faces due south. Since the garages are only one story, they don't shade the yard much, & the house gets full sun almost all day.

1989 - This description is still accurate. All these buildings are still standing. The trees have grown, especially the line of trees in neighbors' yards behind the garages, along the south property line, which I didn't think to mention in 1978, which are now noticeably shading the back porch/greenhouse. More on that later.

1978 - A yard like this presents many problems when it comes to growing food, but it poses an interesting challenge. We made a start immediately after we moved here in April 1977. Area 9 is our best growing space, but my aunt is using that to grow flowers. (My aunt owns the house. She lives in the upstairs flat. I live alone downstairs.) I'm planting in areas 8 & 4. Both are marginal. 8 is shaded by the tree & garage until afternoon, & 4 is a 6 foot wide alley between 2 garages that gets direct sun on the ground only around noon. But the upper walls of the garages are in the sun several hours longer, so I plan to grow plants on trellises on the garage walls so they can climb up into the sunlight.

1989 - I've mostly given up planting in areas 8 & 4. In 8 I've planted Jerusalem artichokes (sunchokes), a perennial that comes up every year & needs little attention. Alley 4 I now use, along with alley 6, mostly for composting. For planting annual vegetables, I've developed a container garden instead, planting in boxes of soil placed in the NW corner of the yard. (See "Container Garden - Old Records Smashed", in LF10p.7.)

1978 - My aunt planted rhubarb at the north end of 9 last year (1977), & it's growing well this spring. This rhubarb has been in the family at least 50 years that I know of, & probably much longer. We take a piece of it whenever we move.

1989 - The rhubarb started well in spring of 1978, but faded during the summer. We decided it was getting too much sun & moved it to the south end of 9, where it's mostly shaded by the garages. For many years it grew well there. But 2 or 3 years ago, it began failing again. It would start well in spring, then die back as it got into summer, before we could harvest any of it. We've decided that the problem is the black walnut tree in the neighbor's yard. I read that black walnuts, roots & leaves, put out a toxin that harms other

plants. Plant war. We figure the tree has been growing, & now its roots extend right across our yard under the asphalt & affect area 9. Tomato plants that my aunt planted in area 9 also refused to grow, for the same reason we think, since I have had good success growing tomatoes in a box nearby. The box sits on asphalt pavement so the black walnut tree's roots can't get to it. So this year my aunt transplanted the rhubarb into a container & so far it looks wonderful.

Other relatives have also taken pieces of this strain of rhubarb, so that it is now growing in 5 places besides the other bed in the old neighborhood.

1978 - Last year (1977) I grew pole beans in alley 4, between the garages, alongside my garage (3), & trained them up on strings tied to the garage. That side gets afternoon sun. I fertilized only with a little compost, & got a low but acceptable yield. This year I'll grow pole beans on my aunt's garage (5) which gets morning sun. At the south end of alley 4 I planted black raspberry bushes.

1989 - I continued for many years to plant pole beans in alley 4, tied up to a line of small nails driven into the tops of the garages. PBs grew best of anything I tried in that space. Best variety is Kentucky Wonder. But I haven't planted PBs in recent years because it was too much work tying them up, & I lost interest.

The black raspberries are still growing at the end of alley 4, but they get very little sun & they aren't prolific. I pick off a few handfuls of berries each year. Mostly they serve as a defensive measure, thorn bushes to discourage kids from cutting through that alley.

1978 - Alley 6 is too narrow & doesn't get enough sun to grow anything in, so that's where I'm putting my compost piles.

1989 - Actually, my aunt has been sticking lily of the valley in odd corners here & there & they even grow in sunless alley 6.

In my family we have always composted yard & kitchen wastes from time immemorial. I discovered that above-ground compost piles were impossible here because they attract rats. So I've gone underground instead. I dig a hole about 2 ft by 3 ft by 3 ft deep, & keep it covered with a sheet of plywood, & we throw compostable wastes into that. I use both alleys 4 & 6 for compost holes, alternating between the 2. As one hole gets full, I dig another in the other alley. It

SURVIVAL GARDENING NOTES

takes most of a year for a hole to fill, since it keeps rotting down & subsiding. There's room for 2 or 3 holes in each alley, & then I start over, back at the beginning, & dig out the by-then well-rotted compost that's 2 or 3 years old. I fill about 35 5-gallon pails when excavating a compost hole. Gradually, over many weeks, I sift it all & use the compost in my gardens. There's never enough.

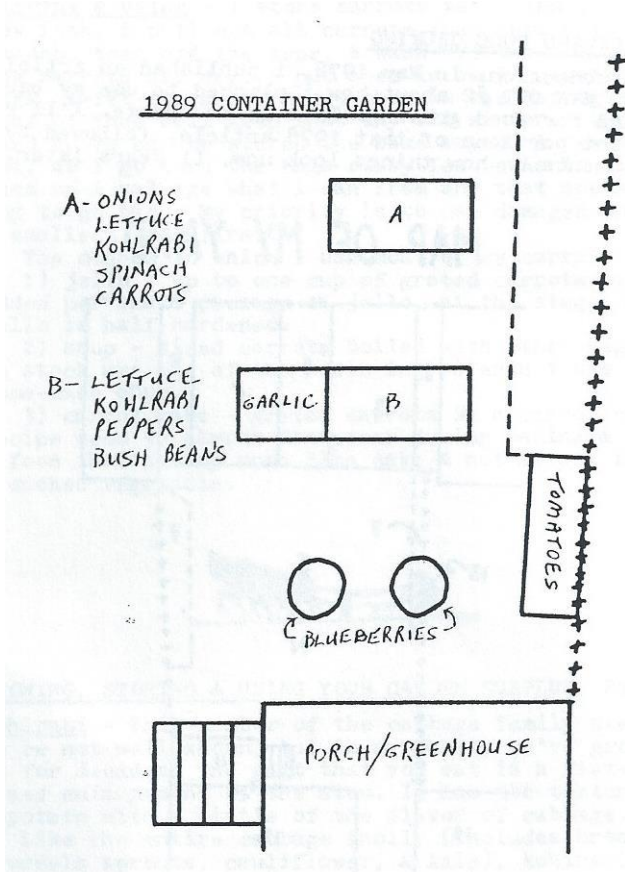
1978 – I'm going to try one unusual idea in alley 6: At the SW corner of garage 5 I'll plant a grapevine, a giant seedless blue grape that Lakeland Nurseries lists in their catalog. My idea is to grow the vine straight up that corner of the garage until it's above the roof line, then I'll train branches of it to run horizontally on wires along the back & side of the garage, above the roof, up in the sunshine. I'll have to use a stepladder to pick grapes. It should work, provided the vine gets enough sun to grow up to the roof in the 1st place.

1989 – In the event, that's pretty much what I did. However, the 1st grapevine I received didn't grow. Since it was guaranteed, I sent the dead stick back to Lakeland Nurseries after a couple months, & the following spring they sent me another vine. This one did grow. I planted it in a 5-gallon pail placed up near to the porch in the sun because I wanted it to increase to 6 or 8 feet long before I planted it next to the garage so that the top would be above the roof & in the sun. After a couple years, I transplanted it into alley 6, but at the NW (front) corner instead of the SW corner. I trained the vine so that now it grows on garage 5 along alley 6, and across the front (north side) of both garages, & back into alley 4 along both garages. When I finally harvested grapes from the vine, I found that what I had was an ordinary blue concord with seeds, not the giant seedless grape I wanted, but by then it was too late to do anything about it. The grapevine continues growing very well & in 1988 I harvested 26 ½ pounds of grapes from it.

1978 – An excellent spot for tomatoes is against the back of my house, which gets full sunlight. But there's no soil there to plant them in. So I'm going to make boxes to set on the pavement there & fill them with soil. I'll plant the tomatoes there & train them up on a trellis fastened to the house.

Because most of the yard is paved, I'll try growing plants in boxes filled with soil setting on the pavement. I have one

box with a glass cover to use as a cold frame already set up & growing.



1989 – Container gardening has proved to be the best way to grow food in this yard. It's especially good in this wet climate where you may not be able to onto a real garden for days after it stops raining, & it may rain every day or every other day for weeks. These on-the-pavement grow-boxes drain right down & you can plant in them, weed, etc. a couple hours after it stops raining.

I didn't put the tomato box against the back of the house since garbage cans needed that space. Instead I put it along the fence, between area 9 & the porch. And there the tomatoes remain to this day & will remain. I used my 1st tomato box from 1978 to 1988. This year I replaced the well-rotted box with a new one made of concrete blocks.

SURVIVAL GARDENING NOTES

I'm still using the cold frame box that I was using in 1978 (it's the box with garlic growing in it), though it's so decrepit now that only inertia is holding it together. Years ago I took off the glass cover & stopped using it as a cold frame. A cold frame is too much trouble. Instead I now start seedlings in the house, on my windowsill, to get a jump on the growing season.

Over the years, I added other containers to provide more growing space. In the beginning I used bushel baskets which rot in one year & must be replaced each spring. When I got tired of doing that, I built 2 more wooden grow-boxes, about 2 feet by 5 feet by 16" high. I now intend to gradually replace these with concrete boxes.

Some years ago I obtained a full-size wooden whiskey barrel that was being thrown away. I cut it in half so I could use the 2 wooden half-barrels as planters. For some years I had dwarf peach trees growing in them, but they caught a disease & died. (I read that it's an unusually long-lived peach tree that lasts more than 10 years in this area.) This year I planted blueberry bushes in those half-barrels.

1978 – Inside the house, I have shelves set up by my sunny kitchen window on which I've started cabbage, broccoli, tomatoes & peppers for later transplanting outside.

1989 – I still start plants by that window. This year I have tomatoes, peppers, head lettuce, & cantaloupes. I now hang a fluorescent gro-lite above the flats to add more light on gloomy days, & after sunset, until I turn it off when I go to bed.

1978 – Before next winter, I hope to glass in my back porch, probably using recycled storm windows, to make a greenhouse. But before I do that, I have to rebuild the foundation of the porch which is somewhat rotted.

1989 – In the event, we had carpenters rebuild the bottom of the back porch. Then I went to work & closed in the sides with recycled wooden storm windows, to make a greenhouse. I use it as a solar-heated (when the sun shines) sun-space. I don't normally grow plants in it, which would require regulating the temperature & heating it at night & on many cloudy winter days. When the sun shines during the heating season, & the porch heats up to over 70 degrees, I open the inside doors & let the heated air come into the house. But to be honest, it probably doesn't cut our heating bills very much.

In recent years the back porch seems to heat in winter less than it used to. And I see that the trees in neighbors' yards beyond our south line have grown taller so that the low winter sun now shines through them instead of over them. To the SE there's a tall evergreen that blocks the sun completely. The other trees drop their leaves in winter, but big bunches of seeds hang onto the branches all winter & block about half the sun.

1978 - I plan to break up some of the pavement to increase the growing area. I'll start in the NW corner & proceed in several steps as I get topsoil to replace the asphalt.

1989 - I never did break up any pavement, & now I don't plan to. Building grow-boxes for on top of the pavement seems to be the better solution.

GROWING, STORING & USING YOUR GARDEN SURPLUS, PART 3

Cucumbers – It's easy to grow more cucumbers than you can use. Cuks should be planted in hills rather than rows. That doesn't mean the dirt should be mounded up, but rather that you put seeds in spots, a couple feet away both ways from other "hills," so the vines have room to spread. If too many germinate, I thin by cutting off the weakest ones with scissors, leaving 3 plants in each hill. Cuks should be planted after the soil gets warm, which means after May 15th around here.



Planting schedule: For planting purposes, I divide veggies into 4 groups by hardiness-to-cold, as follows:

1. After 4/15 plant: all roots, all salad greens, seeds of all cabbage family, onions, garlic, peas.
2. After 5/1 plant: all beans, corn
3. After 5/15 plant: all vines, cuks, squash, etc.
4. After 6/1 transplant: tomatoes, peppers, eggplant.

The variety of cuks I like best is Straight Eight from Henry Field's, Shenandoah, IA 51602. I often have trouble with flea beetles on cuks when they 1st germinate. I dust with rotenone until after the 2nd set of leaves are well developed, then the flea beetles are no longer a problem. I have never been bothered much by any of the other cuk bugs I read about.

I usually have so many cuks that I can afford to eat only the part I like which is, not the skin (bitter), & not the seeds, but only the white pulp in between. I'm not one to eat just an occasional slice of cuk in a salad. That wouldn't begin to make a dent in what I grow. If I eat a cuk, it will usually be a whole one, or at least half of a big one. I peel the skin off with a potato peeler. Then cut in half across, & in half again down the length. With a spoon, I scrape out the seeds & that slimy stuff surrounding them. The white pulp that's left is what I eat.

Cuks will keep a week or so in the refrigerator, then they start declining. I store excess cuks by freezing. I prepare them by peeling as just described. I put these naked, half-boat-shaped quarters in plastic bags, twist-tie, & toss then in the freezer. They'll keep 8 months or longer.

Many of the fresh cuks, & all of the frozen, I eat in the form of cucumber jello, which is made in this way: Peel cuks as described, cut in chunks, & put in a blender, with a splash of milk. Puree as many cuks as it takes to make 3 C (cups) of pulp. In a small saucepan, heat 1 C of this pulp to boiling, & pour the other 2 C into a bowl temporarily to clear the blender. Put hot cuk pulp back into the blender, add 2 small packages of jello, & blend at high speed for 1 minute. Add back to blender the rest of the cuk pulp, & $\frac{1}{2}$ C milk, & blend thoroughly. Put into bowl or jello mold & refrigerate.

When using frozen cuks, I 1st thaw them under hot water before blending. Frozen & thawed cuks (the white part) look like raw fish, but smell & taste like cuks.

When my grapes get ripe, I make cucumber/grape jello. I make homemade grape juice, or rather puree, which I keep for a short time in refrigerator. (I'll say how I make it when I come to write about grapes.) Then to make the jello: Puree in blender cuk chunks with a splash of grape puree to make $1\frac{1}{2}$ C of pulp. Put in saucepan & heat to boiling. Put back in blender & blend in 2 envelopes Knox unflavored gelatin. Add $\frac{1}{2}$ C sugar, then 2 C more of grape puree. Blend thoroughly, put in jello mold, & refrigerate.

I would like to find other wonderful ways to use large amounts of cuks. I would especially like to find a recipe for cucumber soup.

GROWING, STORING & USING YOUR GARDEN SURPLUS, PART 4

Grapes – I've just finished processing grapes for the year, so while it's still fresh in my mind, I'll write about grapes. I have 2 grapevines, one on the garage at my home in the city, & another on the fence at my parents' suburban home. In some years, I also gather grapes from alongside the parking lot where I work, depending on whether management gets hyper about hacking back vegetation around the edges of the lot before the harvest.

The grapes I grow in the city are the ordinary blue concords with seeds. The vine at my parents' yields green grapes with seeds that ripen a littler earlier than the blue.

I have never noticed any bugs on the grapes. They do tend to get some mold on them some years in late fall, probably when it's damper than usual. I can deal with a little mold when I process grapes, so that's no problem. I suppose commercial growers spray with something to control mold, but I never spray vines.

Grapevines are vigorous growers, putting out many side shoots, each one of which will grow several feet in a year. The books say you should prune heavily, taking off up to 1/3 of the vine each year, preferably in mid-winter. Some years I do; some years I don't. The vine will get to be quite a tangle if you let it go for a couple years. But there may be nothing wrong with that, depending on whether you want it to grow in some particular direction. At my home in the city, I have a small back yard that's mostly paved, so I trained a grapevine to grow up the corner & along the eaves of my garage, to make use of space & sunlight that would otherwise be wasted.

Grapes from one vine can be harvested all on one day at peak of ripeness, or you can spread the harvest out over a couple weeks, if that's more convenient. Legend has it that grapes shouldn't be picked until after they've felt a touch of frost, if they're to develop full sweetness. I eat only a few of these grapes as is. They taste fine, but the seeds are a nuisance. I process most of them into products that can be stored for several months until used. I know how to make 4 things from grapes: wine, jelly, cucumber/grape jello, & grape leather. I don't make wine from fresh grapes anymore,

because it's much easier to make it from bottled or frozen grape juice. See LF7, page 3 for how to make wine. I also seldom make grape jelly since it's so cheap to buy & readily available. For the recipe for cucumber/grape jello, see LF45p.3. This year I turned almost all of my grapes into grape leather. Here's how:

I don't have a fruit press or a juicer so I process grapes using ordinary kitchen utensils. I start by turning grapes into puree with all seeds, stems, & skins removed.

1. Wash double handfuls of grapes in a colander under running water.

2. Pick bad grapes, leaves, & other trash off the bunches. I don't bother to remove grapes from stems, if it's easier to leave them on. Put these grapes & stems into a big pot with no added water.

3. Cover pot & simmer at low heat. Mash & stir with a potato masher. Simmer until juice heats up to a rolling boil. (That seems to kill any mold that may be present.)

4. Filter by pouring through a colander. My colander has holes of varying sizes from about 1/8" square to 1/4" square. I work the juice through the holes by stirring & pressing with a big slotted spoon. I finish by adding about 1/2 cup of water to wash down the last bit. This process removes all the stems & most of the seeds & skins.

5. Filter again by pouring through a strainer. That removes all the remaining seeds & anything else that hasn't been ground up to small bits. Getting it through the strainer takes a bit of stirring, maybe 20 minutes of stirring for a handle-basket of grapes. I finish by washing down with another 1/2 cup or so of water & stirring until the pulp is squeezed dry.

And that makes grape puree. It's pourable, but too thick to drink, & too thick to call it grape juice. I put the puree into quart fruit jars, & keep it up to 2 weeks in the refrigerator without canning. This is the puree I use to make cuk/grape jello. Or, to turn it into grape leather, here are the additional steps required.

Grape Leather – 6. To one quart of grape puree, add 1/2 cup sugar & heat it to a high, rolling boil, with enough stirring to keep it from scorching on the bottom.

SURVIVAL GARDENING NOTES

7. Meanwhile, prepare a drying pan. I use pans that are about 11" x 17" x 2" deep. I cut a sheet of clean plastic from a trash bag big enough to line the inside of the pan with a single sheet of plastic. I bring the plastic up & over the sides & tape it in place on the outside with masking tape.

8. Pour the boiling grape puree into the plastic-lined drying pan & place it in a warm drying oven.

9. For drying, I use an oven that has a non-functioning heating element, as a convenient cabinet. To heat that space a little, I use a 100 watt lite bulb, & a hair dryer. As you may know, an incandescent lite bulb converts 96% of the electricity that goes into it into heat, & only 4% into light, so it's much better at heating rather than lighting. The lite does no harm to the drying grape puree. I keep the lite on continuously day & night for the several weeks while I'm drying, & I generally burn out 1 or 2 lite bulbs. I use the hair dryer only occasionally to quickly boost the temperature, usually running it 2 or 3 times a day, about 10 minutes at a time. The oven door should be held open a crack, an inch or less, with a block of wood or something, to let the moisture escape.

You want to dry the puree as quickly as you can without cooking it. Once the moisture has been reduced below a certain point, mold can no longer grow on it. That's why drying works as a preservation method. It takes 2 or 3 days for a tray to dry. I have 2 trays drying in my oven at a time.

10. When the grape leather is dry, when it feels like leather & the surface isn't sticky, remove it from the tray. You do that by flipping the tray over on the kitchen table, peeling the tape loose from the pan, & removing the pan. Now you'll see what the plastic is for, because you'll find the plastic is stuck to the grape leather. If you dry it in a pan without the plastic, the grape leather would stick so thoroughly to the pan that you'd never get it out in one piece. But using plastic, with some effort the plastic can be peeled off the grape leather. Start at a corner & go slow & "persuade" it off. Takes a little practice to get the knack.

11. The surface that was against the plastic (formerly the bottom, now facing up) will still be sticky, so I put it back in the pan, with this sticky side up & put it back in the oven to dry for one more day. I don't use the plastic this time. You'll find that the grape leather is about 1/8 inch thick, & you can

pick it up & handle it without tearing it if you're a little careful.

12. To prepare the grape leather for storage, I pull it out of the pan (it only sticks a little by now) & put it on a cutting board. I cut it with a pizza cutter, once down the middle the long way, & 3 cuts on the side, I half & each piece in half again, to make 8 pieces. Each piece is about 4" or 5" square. I roll up each piece like a cigar & put all 8 into a quart fruit jar, with a cover, & store at room temperature. It will keep that way for months. I've never seen one go bad. I eat these "cigars" of grape leather as is, by biting off chunks as if from a stick of licorice.

After the grape leather is dry, you can cut it up into any shape you like, or leave it as one big slab, as long as you keep it dry. I find the "cigars" convenient.

You can probably make fruit leather in this way from other fruit, especially berries, but I haven't tried it. If you've made fruit leather with other fruit, or by a different method, I hope you'll send us a letter & tell us how you do it.

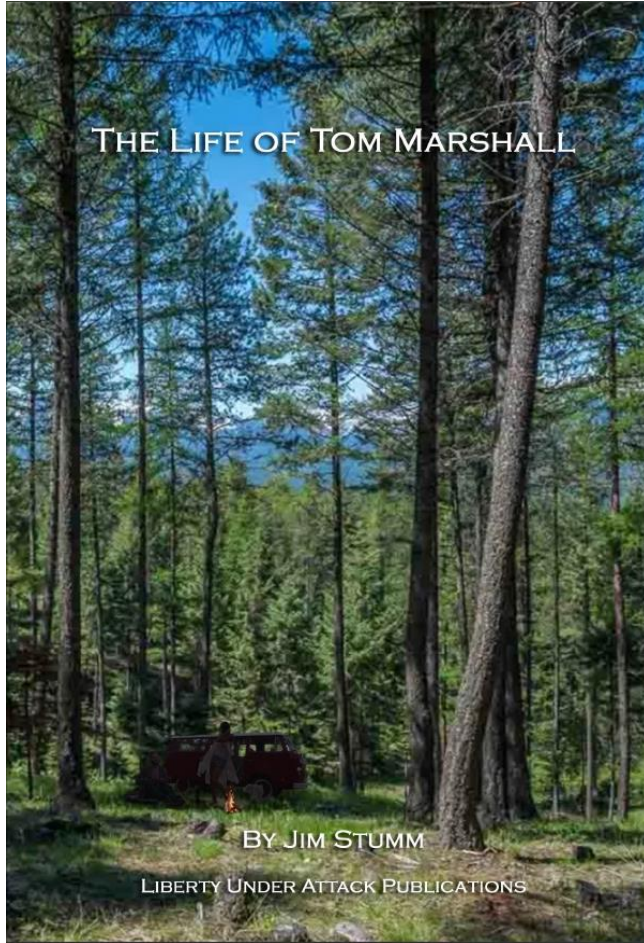


SURVIVAL GARDENING NOTES

Additional Resources

- **The Vonu Podcast:** If you want to learn more about anything covered in this book, I'd highly recommend you check out the podcast Kyle Rearden and I do. In season 1, we covered the philosophy of vonu, season 2 was the practice of vonu, and the current season, 3, is where we develop and update vonu to the modern day.
 - www.vonupodcast.com
- **Vonu: The Search for Personal Freedom, Number 2 – Letters from Rayo**
 - www.vonupodcast.com/vonu2
- **Vonulife, March 1973 (Special Edition)**
 - www.vonupodcast.com/vl
- **Ocean Freedom Notes**
 - www.vonupodcast.com/ofn
- **Self-Liberation Notes**
 - www.vonupodcast.com/sln
- **Going Mobile**
 - www.vonupodcast.com/gm
- **Low-Cost Living**
 - www.vonupodcast.com/lcl
- **Dwelling Portably [sic]**
 - www.vonupodcast.com/dp
- **Articles About Vonu**
 - www.vonupodcast.com/vonuarticles
- **Liberty Under Attack:** A liberty- and solutions-oriented publisher! Books on self-liberation, strategy guides, anarchist/agorist fiction, book bundles, privacy tools, and much more!
- **The Last Bastille Blog:** This is Kyle's blog and it's chockful of incredible, highly valuable information. He has written over 150 book reviews, a couple books pertinent to vonu, and much more.
 - www.thelastbastille.wordpress.com
- **YouTube:** If you're pursuing any of the lifestyle changes or strategies I covered above, then YouTube will be your best friend. Recommended search terms: "van dwelling," "living aboard a boat," "minimalist sailboating," etc.

OTHER RECOMMENDED BOOKS ON VONU:



[THE LIFE OF TOM MARSHALL CHRONICLES THE KNOWN LIFE OF TOM MARSHALL (“RAYO”), THE FOUNDER AND MAIN PROPONENT OF THE FREEDOM STRATEGY, VONU.]

[#AGORA IS THE “FICTIONAL” STORY OF DANIEL LARUSSO’S JOURNEY INTO THE CRYPTO-ANARCHIST, CYPHERPUNK UNDERGROUND. BASED OFF OF A REAL SECOND REALM COMMUNITY IN BERLIN, LEARN HOW FREEDOM CAN BE BUILT IN THE HERE AND NOW.]

A nighttime photograph of a city skyline, featuring a prominent, illuminated tower in the center. The sky is dark, and the city lights are visible in the background.

#agora

anonymous

www.libertyunderattack.com

Vonu: The Search for Personal Freedom

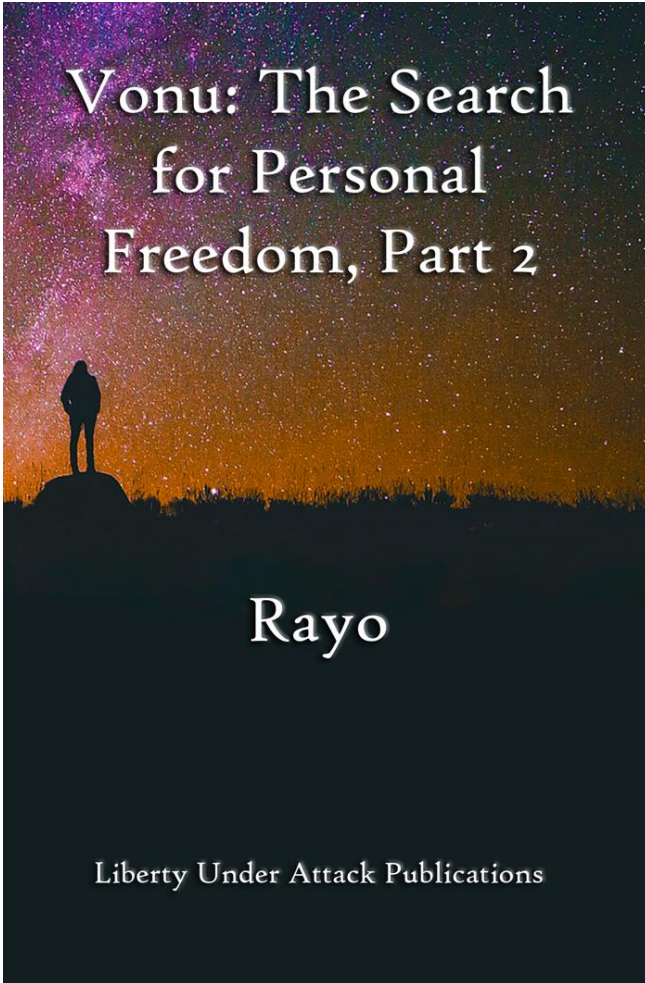


Rayo

Liberty Under Attack Publications

[VONU... IS THE BOOK THAT STARTED IT ALL. PUT TOGETHER BY JIM STUMM, THIS COLLECTION OF ARTICLES BY RAYO INTRODUCES THE STRATEGY & PHILOSOPHY OF VONU AND GIVES YOU A LOOK INTO RAYO'S RADICAL LIFESTYLES.]

[VONU, BOOK 2: LETTERS FROM RAYO IS ANOTHER COLLECTION PUT TOGETHER BY JIM STUMM. HEREIN, YOU'LL READ MANY LETTERS FROM RAYO, GET UPDATES ON THEIR VONU LIFESTYLES, AND MUCH MORE.]



SURVIVAL GARDENING NOTES