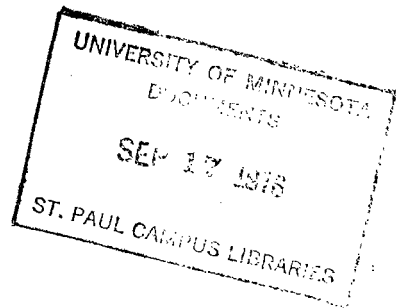


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Pamphlet 120 3



Garden suggestions for schools

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Garden Suggestions

FOR SCHOOLS

This year as never before, the American public is food-conscious, for food rationing touches every family. Anything the teacher and the school can do to help provide adequate year-round garden supplies for every family in the district will further the war effort.

Many Minnesota farm gardens are inadequate to supply garden products for use all winter. A teacher may arouse quick interest by asking each pupil to survey his own home cellar to see what vegetables are canned or stored. Is the supply adequate for daily servings until next summer? For good health, there should be a variety every day of the year.

The great interest in vitamins, in lend-lease food for our allies, and in the importance of food on the fighting fronts invites the introduction of food study in the school program. Gardening presents an ideal opportunity for such study.

On the following pages some suggestions are made for school activities. However, the alert teacher will see many other ways to bring in garden and food ideas.

REFERENCES

- Extension Bulletin 174—Vegetable Gardening
Extension Pamphlet 122—Victory Garden



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Lesson 1. Importance of the Garden

(General discussion period)

- a. **Food:** The garden is an important source of food supply. Point rationing makes it important that families grow as much of their food as possible, as a patriotic duty.
- b. **Health:** Year-round consumption of fruits and vegetables helps to keep people healthy. Nobody can afford to be sick now; there is too much important work to do, and doctors and nurses are needed in the war effort.
- c. **Morale:** The delightful variety which these foods bring to the family table will be more than ever appreciated now, when so many foods will be hard to buy. Morale is important, and the knowledge that there is an ample supply and a great variety of garden products in the garden or in the cellar will go a long way to maintain the cheerfulness of those who carry the burdens at home.
- d. **Quantity:** The garden must produce for summer use, for canning purposes, for winter storage. It is important that good land be used, enough of each product be planted and cared for, and careful plans be made to preserve and store plenty of each product.

Special Assignment (For older pupils)—Reference: Page 4, Extension Bulletin 174.

Estimate vegetable needs of the family. Kinds of vegetables to be raised, quantity needed of each, total to be planted, kinds and quantities to be canned, kinds and quantities to be stored fresh.

Discussion Questions (For younger pupils)—Reference: Extension Pamphlet 122.

- a. Name four greens for summer use. *Answer:* asparagus, lettuce, chard, beet greens, spinach, cabbage.
- b. Name four other vegetables for summer use. *Answer:* peas, string beans, onions, radishes, carrots, beets, corn.
- c. Name four good vegetables to can. *Answer:* greens, tomatoes, green beans, corn.
- d. Which vegetable is the easiest to can? *Answer:* tomatoes.
- e. Name five good vegetables to store. *Answer:* cabbage, carrots, beets, potatoes, parsnips, squash, rutabagas, dried beans, dried peas.
- f. Name one vegetable that can be left in the ground all winter and dug up for use in the spring. *Answer:* parsnip, horseradish.
- g. Who had the greatest variety of vegetables in their home garden last year? (Pupils list all they had.)

Lesson 2. Planning the Garden

(General discussion period)

- a. **Kinds to Plant:** A wide variety is desired to meet the needs of summer use, canning, and storage and to provide variety in table use and food value. Select varieties recommended for the area.
- b. **How Much to Plant:** Study family needs on a year-round basis, and check with production of previous years. Be practical, but be generous. The most common mistake is not having enough for winter use.
- c. **Where to Plant:** Must it all be planted in one place? How about a little kitchen garden near the house, and a much bigger garden, for quantity supplies, out in the field some place? Out there the rows can be long and wide apart, to permit machine cultivation. Richer land, fewer weeds, less labor, bigger supplies—these might be obtained by good selection of the field garden.
- d. **When to Plant:** Don't plant everything all at once, first thing in the spring. Study instructions in bulletins and seed catalogs. For products to be stored fresh, time the planting so they will be in prime condition when stored.

Special Assignment (For older pupils)

Prepare a garden plan and program for the pupil's own home. Where possible, encourage a combination with a small kitchen garden and a larger field garden arranged for cultivation to provide quantities for canning, drying, and storage. Plans should include maps showing proposed arrangement, planting table, variety lists, quantity objectives, etc.

Discussion Questions (For younger pupils)

- a. Name four vegetables that occupy the ground only part of the season. *Answer:* peas, radishes, spinach, lettuce, green onions, early potatoes.
- b. Name four vegetables that occupy the ground all the growing season. *Answer:* winter onions, tomatoes, squash, late potatoes, asparagus, navy beans.
- c. Name three advantages in having a field garden in addition to a small kitchen garden. *Answer:* In the field garden, you can cultivate with machinery, select a new rich spot each year, produce large supplies for canning and storage, and ground may be less weedy.
- d. Where can one find out which varieties to use? *Answer:* county agent, seed company, successful neighbor, personal experience.
- e. Where should one buy the seeds? *Answer:* From a reliable seed company or dealer.
- f. When should one get the seeds? *Answer:* As soon as possible.

Lesson 3. Planting, Transplanting, Early Care

(General discussion period)

- a. **Seedbed:** Well-drained, not subject to washing; rich, well-fertilized; free as possible from weeds; plowed deep, heavy soils fall-plowed. Work well in spring to pulverize the soil and kill spring weeds.
- b. **Arrangement:** Arrange rows for hoeing in small kitchen garden; in field garden space them far enough apart for cultivating—long rows are best. Plan relation of one crop to another. For example, squash planted between rows of early sweet corn can spread out later.
- c. **Planting Seeds:** Follow directions that come with seeds; do not waste them. Plant proper depth, correct date, and needed quantity.
- d. **Transplanting:** Purpose is to get a well-started, thrifty plant ready for outdoor conditions. Harden by exposing to cooler outdoor conditions, before transplanting; water well before digging up and after replanting. Pack soil firmly around plant. Place paper collar around plant to protect from cutworms. Provide shade for first day or so.
- e. **Care:** Hoe or cultivate to prevent weeds from starting and surface from getting crusty.

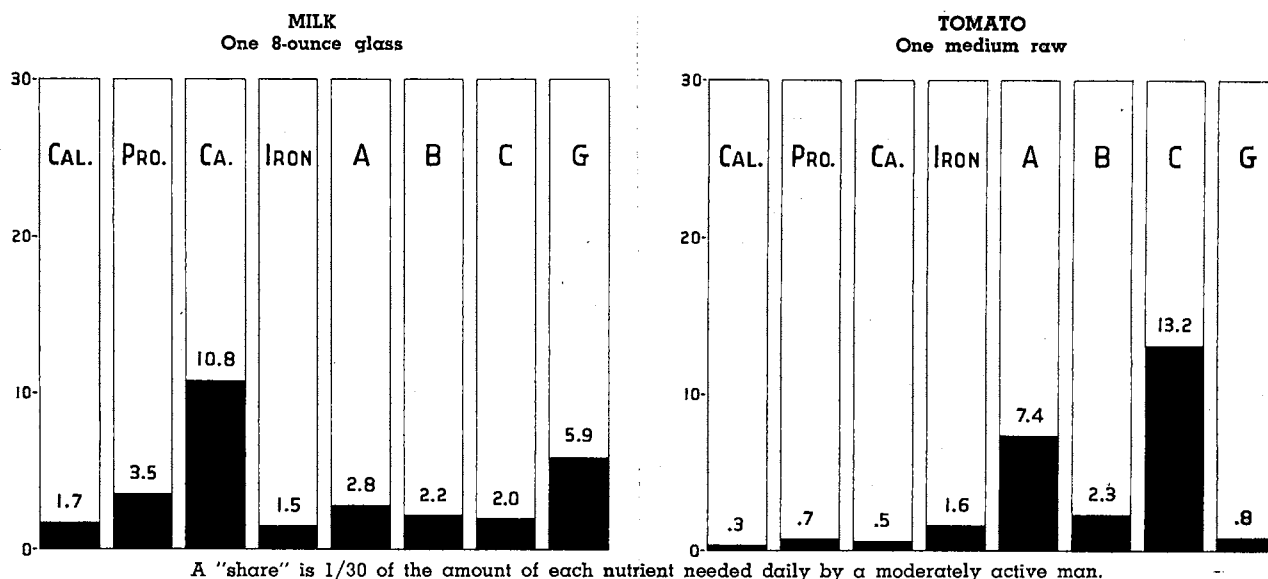
Special Assignment (For older pupils)

Actually raise a supply of tomato, cabbage, or other plants for family use. Demonstrate before the school the correct methods of transplanting these plants, watering before and after handling, putting on paper collars, setting up shade, etc. Use box of dirt or sand box.

Discussion Questions (For younger pupils)

- a. What kind of weather is good for transplanting? *Answer:* cool, cloudy.
- b. How can plants be hardened before transplanting? *Answer:* exposing to outdoor conditions.
- c. Why is it important to water the plants before and after transplanting? *Answer:* prevent roots from drying out.
- d. Why should the soil be firmly packed around the roots? *Answer:* to keep soil in contact with roots and hold the plant erect.
- e. Why shade the transplant? *Answer:* to prevent wilting.
- f. Describe the finished seedbed. *Answer:* thoroughly pulverized, free from weeds.
- g. Why should crowding of plants be avoided? *Answer:* weakens the plants.
- h. Why are long straight rows desirable? *Answer:* easy to cultivate with machinery.

Nutrients Supplied by Milk and Tomato, Compared to Quantities Needed Daily



Explanation of charts: The eight nutrients indicated are the ones in the human diet which may be lacking. The foods needed to furnish an adequate supply of these eight nutrients also contain other essential food materials. The day's meals should supply the full daily requirements.

The quantity of each of these nutrients needed by a man for one day is represented by the full height of the column. The amount of a nutrient supplied by a glass of milk, or a tomato, is shown by the shaded portion of the bar. For example, three glasses of milk would supply enough calcium for a man for a

day, but other foods would be needed to supply the needed calories, iron, and other nutrients.

Making and coloring charts: The type of chart shown above can be used to picture the food value of each food named below. The charts should be much enlarged and drawn to some convenient scale. For example, if the full height of a 30-share column is 15 inches, one share will be one-half inch high. Use these colors: calories, black; protein, yellow; calcium, white; iron, red; vitamin A, green; vitamin B₁ (thiamin), orange; vitamin C (ascorbic acid), purple; vitamin G (riboflavin), blue.

Shares of Nutrients Needed and Shares of Nutrients Supplied

	Calories	Protein	Calcium	Iron	A	B	C	G
No. of shares needed daily for:								
Man moderately active.....	30	30	30	30	30	30	30	30
Woman moderately active.....	25	25	30	30	30	25	28	25
Child—10 to 12 years.....	25	30	44	30	27	25	30	25
Girl—13 to 15 years.....	28	34	48	38	30	28	32	28
Boy—13 to 15 years.....	32	37	52	38	30	32	36	32
No. of shares supplied by:								
Whole Milk (1 8-oz. glass).....	1.7	3.5	10.8	1.5	2.8	2.2	2.0	5.9
Raw Tomato (1 medium).....	.3	.7	.5	1.6	7.4	2.3	13.2	.8
Orange (1 medium).....	.8	.6	1.6	1.2	2.1	2.9	33.6	.3
Steamed Carrots (½ cup).....	.3	.3	1.1	1.0	12.3	.9	.8	.7
Raw Cabbage (½ cup).....	.1	.3	.7	.7	.1	.7	12.0	.5
Roast Beef (1 slice).....	1.5	9.9	.5	8.67	2.7
Roast Pork (1 slice).....	1.0	7.6	.4	8.2	5.9	1.3
Boiled Potato (1 medium).....	1.0	1.1	.5	2.8	.3	1.0	1.0	.8
Steamed Spinach (½ cup).....	.2	.7	5.3	100.0	1.1	5.6	3.2
Fresh Strawberries (½ cup).....	.4	.5	.8	1.8	.5	.3	15.0

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