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U. S. GOVERNMENT CAMPAIGN

TO PROMOTE THE PRODUCTION, SHARING,  
AND PROPER USE OF FOOD

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BOOK IV  
THE VICTORY GARDENS CAMPAIGN

Prepared by the  
U. S. Department of Agriculture  
In Cooperation with the  
Bureau of Campaigns  
Office of War Information

## U. S. GOVERNMENT CAMPAIGN

### VICTORY GARDENS

#### I. THE PROBLEM

The Nation needs the help of everyone who can grow a good garden.

In spite of the greatest production in history in 1942 and even greater planned production for 1943, wartime requirements for U. S. food supplies have increased even more rapidly than production.

Farmers established a new food production record in 1940, topped that in 1941, and broke the 1941 record in 1942. Farm production goals for 1943 call for still another new production record. Farmers will need all the help they can get to meet their unprecedented food production responsibilities. Gardening is one of the best ways for an individual family to help in supplying this vital implement of war. The needs for 1943 are so great that every food production resource must be mobilized to meet the demand.

One-fourth of our total food production in 1943 will be needed for our armed forces and to help supply our allies, fighting men, and the workers who make their weapons. The size of our armed forces and the length of our battle lines grow daily. That means more food immediately and more for future use. Planning for military campaigns requires that the accumulation of food stores be started many months in advance so that there will be no uncertainty about food supplies when the fighting starts.

Stockpiles of food must be accumulated to follow up the United Nations' armies of invasion. The Axis strategy is to use starvation to beat conquered peoples into submission. The United Nations' food strategy is to build with food new power to throw against the Axis. Hitler stripped North Africa of its food supplies. Food from America is helping French soldiers to take their places beside our own soldiers and against the Germans. Food from America helped to make the combined American and British campaign in Africa possible.

The demand for food in this country has grown along with the demand on foreign fronts. Americans are working harder and earning more money with which to buy food, and as the supply of other goods gets smaller, an increasing proportion of consumer income becomes available for food purchases.

Important amounts of the food supplies that go to war are dehydrated vegetables and fruits. Dehydration in 1943 will take four times as many vegetables as in 1942 and most of this supply will go into army and lend-lease needs.

The demands of war on metal supplies make it impossible to meet military and lend-lease needs for canned foods and still supply normal amounts to civilians. Thirty-five percent of the 1942 pack of the most important canned vegetables was set aside for army and lend-lease needs. Fifty percent or more of the 1943 pack of the important canned goods will be required for these needs. This means that civilians will have to depend more and more upon fresh supplies from commercial sources and that they will need to supplement these supplies



through home garden production. Furthermore, because of the military and lend-lease needs for canned supplies, it will be important for gardeners to plan to store and preserve for winter use as much as possible of the products of the gardens.

The wartime burden on the Nation's transportation system will make it impossible to ship over long distances the normal amounts of fresh vegetables and fruits, especially the more bulky vegetables. This will require production of more of the civilian supplies close to consuming areas.

## II. THE PROGRAM

Victory gardeners can help in many ways to meet the wartime food production problem. Home food production will contribute to the war effort both on the fighting front and on the home front. It will reduce the demand on commercial supplies and thereby make more available for military and lend-lease needs and for the needs of those who are unable to have gardens. Home food production will reduce the demand on strategic materials for commercial canning. It will help to relieve the food transportation burden, for the Victory Gardener can have a large part of his vegetables right at his doorstep, and on his pantry shelves and in his cellar.

Gardens offer an important advantage under the program of rationing canned vegetables. Home canned vegetable supplies are not deducted from the ration allowance and therefore can be used to supplement it. Those unable to have gardens will benefit indirectly by the fact that home gardening lessens the demand for commercial supplies of these products and leaves more for rationing.

The Victory Garden program for 1943 calls for four types of gardens: farm gardens; and, in cities and towns, home gardens, school gardens, and community gardens.

### 1. Farm Gardens

Every farm where climate and water supplies permit, should produce the family's entire year's supply of vegetables, both fresh and processed, and also as much fruit as possible. This will require growing something from early spring to hard-freezing weather in the North. In the South something can be grown all winter long. Farm gardens should be enlarged, and succession ploughings and sowings of vegetables made to extend the months of production for eating fresh, and for preserving and storing. Every farm that possibly can should begin to produce more of needed fruits, by planting strawberries, bush fruits, grapes, and suitable kinds of tree fruits.

### 2. Town and Suburban Gardens

Town and suburban dwellers who have sufficient open sunny garden space and fertile ground, should also grow a large supply of vegetables for home consumption. Suburban home-owners also should plant more fruit, especially small fruits wherever space permits.



### 3. Community Gardens

People living in cities and in metropolitan areas will usually not have space or fertile ground sufficient to grow any appreciable quantity of vegetables. They should be encouraged to seek community plot or allotment gardens on the outskirts or on vacant industrial property, accessible by bus or street car, and develop garden plots, 30 x 50 feet or larger, and grow vegetables for home consumption the entire season long. In some instances arrangements may be made with nearby farmers to plant, cultivate, and harvest a community garden with cooperating city people furnishing the labor and sharing in the produce.

### 4. School Gardens

Rural and town schools should further develop school gardens planned and managed on such a scale that will provide large supplies of fresh and processed vegetables for school lunches.

#### Saving Current Supplies for Future Use

Not one bit of locally grown vegetables or fruit products should be allowed to go to waste. Surplus home-produced vegetables and fruits or local market surpluses obtainable at reasonable prices while still fresh should be used fresh or processed for family consumption. Or, if of good quality these may be given fresh to schools for school lunches, or if prepared under proper supervision by responsible agencies, may be canned, brined, dried, or otherwise processed and given to schools and local welfare institutions.

The entire national food situation will be tremendously bettered and our military needs and the needs of our allies be more easily supplied, if our farmers and our home owners with suitable ground will grow all the vegetables required for the family. Because of the importance of minerals and vitamins in the diet, special attention should be given to growing the fullest supply of green and leafy vegetables, yellow vegetables, and tomatoes. Victory Gardeners must, however, have required space and fertile ground, and tend their gardens faithfully, for we cannot afford to waste seed, fertilizer, insecticides, and labor in 1943.

### III. OBJECTIVES OF THE CAMPAIGN

The objectives of the Victory Garden Campaign are: (1) To show the importance of Victory Gardens as a part of the whole job of producing food to win the war; (2) To get as many families as possible who have suitable space to grow a Victory Garden (for rural areas the goal is a Victory Garden on every farm); (3) To explain to Victory Gardeners what they should grow for the greatest contribution to good diet for the family; (4) To provide information on how to grow a good garden, including care in the use of seed to avoid waste; (5) To show how to store and preserve garden crops for winter use.

After the Victory Gardens have been planted it will be important to maintain interest and enthusiasm throughout the season to get the greatest returns from the investment in seeds, fertilizers, and work involved in planting.



#### IV. COPY APPEALS

##### "FOOD PRODUCTION IS WAR PRODUCTION."

By growing a Victory Garden you can help win the battle on the food production front. Our farmers will be doing the biggest food production job of all time in 1943. But, as Secretary of Agriculture Wickard has said, "We cannot produce too much food," and your help is needed.

By growing and preserving your own supply of vegetables you reduce the demand on commercial stocks needed for our armed forces and, moreover, insure for your family an adequate supply of much needed protective foods. The Department of Agriculture's standard of good food habits include the recommendation that from 4 - 7 servings of fruits and vegetables should be eaten daily. Much better health, a basic wartime need, will result.

You can add to your supply of the vegetables that will be rationed by producing and storing for winter use at home. Home-canned vegetable supplies will not be deducted from the ration allowance. You can use these home-canned supplies to supplement your ration.

By growing a Victory Garden you can make it easier for your boy or your neighbor's boy or your big brother somewhere in our armed forces, or soldiers in the Russian Army, the British Army, or any of the other United Nations' armies to get the food they need to fight for you. By growing a Victory Garden you can make it easier for someone like you in one of the reoccupied countries to get the food Hitler's been keeping from him so he can join up on our side to fight Hitler. What you produce in your Victory Garden will leave that much more of the commercial supplies for the military forces, for our fighting allies, or for those who don't have a place for a garden.

By growing a Victory Garden you can make more food available for stockpiles that must be stored now for campaigns against the Axis months from now. Food, like other war supplies, must be ready before the fighting begins.

By growing a Victory Garden you can help to save vital metals used for canning. What you grow for your own use will reduce the amount you will need to buy in cans.

The Nation's railroads and trucks are called upon to do the impossible in keeping war supplies moving. Your Victory Garden will cut down on the amount of food that must be shipped for you and will help to keep the guns and tanks and planes rolling toward the war fronts. By growing a Victory Garden you can have a large part of your own supplies in your own yard and stored in your own home.

Throughout America, the farm families, the city dwellers, the small town residents, and school children everywhere can help to create a large enough food supply to make food do the job it must do to win the war.

Industry has converted to production of war equipment and munitions. Farmers have converted to war food and fiber production. By growing a Victory



Garden you can convert your available resources to war production. But do it as the farms and factories are doing it -- on a program of planned production. Pick the best space available, prepare the soil well, plant carefully so as not to waste seed, take good care of your garden so as to get the most out of it for your family and the Nation, and store and preserve what you don't need in fresh form for use next winter.

By growing a Victory Garden you can help win the battle on the food production front. Farmers will be doing the biggest food production job of all time in 1943, but the Nation will need your help too. You can add to your supply of the vegetables that will be rationed by producing and storing for winter use at home. Home-canned vegetable supplies will not be deducted from the ration allowance. You can use these home supplies to supplement your ration.

The help of every good gardener is needed. If you are not a skilled gardener get the advice of a good gardener in your neighborhood. If you live in the country or in a small town, ask your county agricultural agent or your county home demonstration agent. Perhaps your club or one which you could join will sponsor gardens and supply gardening information and advice. You can get garden bulletins and gardening advice by writing to your State Agricultural College or to the United States Department of Agriculture.

#### V. TIMING

Because of the wide variations in season and climate, timing of the successive steps in the campaign should be on a regional basis. Gardening is already under way in the southernmost areas. For the remainder of the country the time schedule in general should be as follows:

February 15 -- For the intermediate areas, start with importance of Victory Gardens in the war and appeal for all who have suitable space to grow Victory Gardens.

March 1 -- For northern sections, start promotion with importance of Victory Gardens in the war and appeal for all who can grow a good garden to grow one this year.

Two weeks after opening of campaign in all sections -- Start discussion on  
(1) Selecting a good garden space; (2) How to prepare the soil;  
(3) What to plant and why.

Four weeks after opening of campaign -- Care of the garden, including cultivation, watering, and timely discussion on insect control.

Three months after opening of campaign -- Start discussion of canning and drying for winter use, timed to coincide with local harvest dates for specific crops such as peas, green beans, and local fruits.

Summer season -- Start discussion of value of re-seeding and planting all kinds of vegetables which may be used in late fall and winter such as endive, Chinese cabbage, late cabbage, kale.

Fall season -- Continue discussion of canning and drying, and add storage of root crops -- keyed to local harvest dates. For the Southern States, start discussion of fall gardens about September 1.



## APPENDIX "A"

### PLANNING, PLANTING, AND CULTIVATING

The size of the garden and the variety of produce grown will, of course, depend upon climatic and soil conditions, space, the amount of time available, and the size of the family.

The garden should be big enough and so well tended that it will produce the largest part of the family's needs for vegetables both fresh and preserved. Particularly should Victory Gardeners plan to raise the most nutritious, protective vegetables, particularly leafy green vegetables, yellow vegetables, and tomatoes. Green leafy vegetables (cabbage, green lettuce, kale, turnip and beet tops, mustard greens, collards, and others), yellow vegetables (carrots, squash, sweet potatoes), and tomatoes can all be grown so successfully and yield so bountifully that each gardener should aim at supplying his family's needs.

Vegetables are essential not only for their vitamins but also for the necessary minerals they provide. Their greatest contribution is probably in vitamin A and vitamin C (ascorbic acid), but as a group they also furnish not only some vitamin B-1 (thiamin) and vitamin G (riboflavin) but likewise some calcium and iron. Even small amounts of these substances are important, because they supplement what is obtained from other kinds of food.

The following standards for various types of gardens should receive first consideration by all who are promoting Victory Gardens and helping in the educational phases of the work, and by all gardeners:

#### 1. Farm Gardens

Whether the vegetables are grown in a distinct garden plot or in field rows, the plantings should be large enough to supply the family's entire yearly needs, for vegetables to be eaten fresh out of the garden, for canned, brined, dried or otherwise processed vegetables and for stored vegetables to be used during the fall and winter. This implies planning the garden so that by means of successive sowings and plantings and by means of companion cropping that the farm garden effort produce vegetables from early spring until winter. Nor should any farm in the Southern States or in areas in Arizona and on the Pacific Coast, where climate permits, be without a fairly large winter garden.

Moreover, every farm where climate and water supplies permit should plant enough small fruits, grapes, and tree fruits to provide within a few years full supply of fresh, dried, and canned or otherwise preserved fruits for family use. The care that fruit plants and trees require is not so great as to bar the average farm family from enjoying these desirable foods.

Long straight rows, spaced far enough apart to allow for horse cultivation are most desirable.

Every effort should be made to have more than a spring and early-summer garden. Summer dry spells often raise havoc in a garden and may prevent seeding and planting late summer and fall vegetables. The garden should be

located in the most favored spot on the farm with respect to moisture. Supplementary irrigation from a spring, creek, or windmill may well be developed to insure against drought. A system of tiles for subirrigating the garden is also successful in some areas. Pit or frame gardens have shown in areas of limited rainfall that a family can grow some of the early "green stuff" needed.

The following vegetables make a suggested list from which a collection of 10 - 15 kinds can be recommended:

Leafy Vegetables

Lettuce  
Cabbage  
Kale  
Turnip greens  
Chard  
Collards  
Spinach

Lend themselves  
to fall and winter  
gardens especially  
in South

Root Vegetables

Turnips  
Parsnips  
Beets  
Carrots  
Rutabaga

May be  
stored easily

Miscellaneous

Tomatoes  
Bush and pole beans  
Lima beans  
Peas  
Onions  
Radishes  
Cucumbers  
Squash, Hubbard and yellow summer.

It is assumed that farm families will also produce enough white potatoes or sweet potatoes or both for home use throughout the year.

Full advantage should be taken on every farm of cool cellars for the winter storage of vegetables. In the absence of a good cellar outdoor pits should be made for this purpose.

In addition to the fresh fruits and vegetables provided by the garden, the farm family should plan to can or otherwise preserve from 100 - 125 quarts of fruits and vegetables for every member of the family. Moreover, the kraut barrel and the pickle keg are old standbys that should be found on more farms.



## 2. Town and Suburban Gardens

About the same principles and directions as for farm gardens should be observed here insofar as space permits. A garden 30 x 50 or 50 x 100 should be the goal of these Victory Gardeners. An average of an hour a day in such a plot will do wonders in the way of supplying vegetables for the family both fresh and preserved. If the home backyard cannot yield about this amount of open sunny space in fertile ground without destroying permanent ornamental plantings, then the earnest Victory Gardener should seek a nearby community or allotment garden.

## 3. Allotment Gardens

In some metropolitan areas, Victory Gardeners have produced good yields of vegetables on large communal plots made available through the effort of local Victory Garden Committees. In Chicago last year, there were 547 community gardens in which 8,105 families participated. Already 162 additional areas have been set aside there for 1943 and are now being plowed. This example, and similar examples in other cities, may well be followed more generally. Vacant ground around industrial plants, or vacant real estate development tracts accessible by bus or street car, or on bicycles by the real enthusiasts, lie ready for development in many areas, awaiting the effort of local garden committees of Civilian Defense Councils, the American Women's Volunteer Services, or other agencies.

As soon as possible the free use of such areas should be obtained, the land cleared, plowed and fitted, plots staked off, and assignments made. The help of the county agricultural agent, or experienced local gardeners should be sought to determine the suitability of such tract, with special reference to the fertility of the soil and the treatment needed to bring the area in shape for gardening.

## 4. School Lunch Gardens

There is a decided need for school vegetable garden plots where children will grow supplies of vegetables to be used fresh or processed in the school luncheons. Here the plots must be large enough and the crops grown as in a market garden to yield not only maximum of much needed vegetables, but also to yield greater educational value. Hotbeds and coldframes will be important adjuncts to such garden class work and garden cultivation and care must be well organized, with delegation and acceptance of individual and class responsibility. Summer care and cultivation must also be provided, by hiring boys or other help, under the watchful supervision of the instructor or a gardener. Provision must be made also with the aid of some pupils and instructors, or a local committee of interested parents, to harvest the vegetables when ready and process them for school lunch use. The opportunities here for consolidated rural schools, or the schools of smaller cities and towns, are very great.

### How to Arrange a Garden

If the garden plot slopes appreciably and is subject to soil erosion, the rows should not run up and down the hill. If the plot is nearly level, the rows should run the long way of the area for convenience in working.



Tall-growing crops should be placed preferably on the north or west side of the garden so that they will not shade the low ones.

The first plantings of small and early vegetables should be along the south or east side, if possible, later crops being sown progressively across the area. This orderly procedure helps avoid confusion and damage to the earlier sowings.

Suggested layouts for gardens are included in nearly all the publications for gardeners.

#### How to Prepare the Soil

Commercial fertilizer, where needed, should be applied along the row in a band about 3 to 4 inches wide and about 2 inches from the line where the seeds will be sown or the plants set. This can be done by scooping out a wide furrow about 2 inches deep with a good-sized common hoe and then distributing the fertilizer uniformly along the furrow. The fertilizer should not come in contact with the seed.

#### How to Plant

All gardeners must guard against the common danger of wasting seed by sowing it too thickly. This wastes labor also because the seedlings must later be thinned by hand to a spacing that will allow proper development. Poor growth and poor-quality vegetables result when seed is sown too thick and the plants are not thinned out to proper spacing in the row.

Bean and pea seeds should be spaced as the plants are to stand. These vegetables should never be thinned in the rows.

Small seeds like those of carrots, collards, onions, parsnips, spinach, and turnips should be sown three or four times as thickly as the plants are to stand finally since usually many seeds fail to produce good seedlings. Surplus seedlings are thinned out before the plants crowd one another.

Beet and chard "seeds" should be sown no thicker than the plants are to stand, because the "seeds" are really fruits, each containing several seeds. Some thinning is always necessary and thinned out beets can be used as greens.

Detailed information on spacing the plantings and on planting dates should be obtained from reliable publications adapted to local conditions.

#### Cultivating and Mulching

All weeds must be kept under control by thorough shallow cultivation or hoeing. Vegetable crops should not be cultivated deeply because of danger to the roots that grow near the surface. Weeds that take root again readily after hoeing or pulling should be carried out of the garden. The garden should be cultivated as soon as the soil is dry enough after each rain or irrigation and as often in addition as is necessary to keep the weeds down. There is no



proved benefit from stirring an already cultivated soil that is free of weeds.

Care should be taken to avoid trampling and packing the soil so far as practicable. Mulching between the rows with straw, dried lawn clippings, leaves, or similar material will help conserve moisture and keep down weeds.

Light sprinkling or light irrigation is a bad practice. If water is to be applied, the garden should be thoroughly and deeply soaked, as by a fairly heavy rain, and watered again only when the soil shows signs of becoming dry.

#### Insuring Success in Gardening

Great stress should be given to the importance of not only planting a garden, but also following through to success — avoiding the waste of seeds, fertilizers, insecticides, and effort. The prospective gardener should get all the advice and guidance that he can.

Victory Gardeners can obtain bulletins and pamphlets from State Extension Services, of State Agricultural Colleges, and other State agencies and should follow these if possible, as such publications are adapted more closely to local conditions.

Publications available from the United States Department of Agriculture include:

Victory Gardens

The City Home Garden

The Farm Garden

Diseases and Insects of Garden Vegetables

Disease-Resistant Varieties of Vegetables  
for the Home Garden

Hotbeds and Coldframes

The Home Fruit Garden

Write to the U. S. Department of Agriculture, Washington, D. C., for the bulletin or bulletins desired.

## APPENDIX "B"

### PUTTING GARDEN PRODUCTS TO USE

Though garden vegetables and fruits have many different food values, their most important offering to the diet is in their vitamins and minerals, particularly vitamins A and C, and iron and calcium. Much of the vitamin value can, however, be lost en route to the dinner plate, and the big loss may come in the kitchen, even in the kettle. To save food value as well as fresh color, flavor, and texture, proper care and cooking are necessary. Non-acid vegetables lose vitamins more easily than fruits and tomatoes do. Vegetables that wilt, dry, or become overripe may lose much of vitamins A, B, and C. Fruit and vegetables are thus used best as soon as possible after harvesting. If they must be held, they should be kept cold and covered, but not soaking in water. Vegetables should be served raw when possible. Otherwise, they should be cooked rapidly and only until tender.

#### Cooking Fresh Vegetables

The most common way of cooking vegetables is boiling. Serious losses in food value and appetizing qualities may come from overcooking, from allowing soluble vitamins and minerals to dissolve in water, or from destroying vitamins and flavor by adding soda to the cooking water. Directions for correct boiling are: Drop the vegetable in a small amount of rapidly boiling, slightly salted water, and boil until just tender. Never add soda. Serve the cooking water on the vegetable, or use it in soup or sauce. Boil green and strong-flavored vegetables in an open kettle, others in a covered kettle.

Steaming and baking are suitable methods of cooking all but green and strong-flavored vegetables. Cooking in the new pressure saucepan conserves the most food value.

Further information on cooking and serving vegetables is in the following publications of the U. S. Department of Agriculture: "Green Vegetables in Low-Cost Meals," "Root Vegetables in Low-Cost Meals," and "Potatoes in Low-Cost Meals."

#### Cooking Fresh Fruit

Fruits, like vegetables, offer the most food value when eaten fresh and uncooked. Rapid cooking is best for saving food value. Some sweetening helps preserve color and texture of fruit.

#### Preserving Garden Products

For off-season use, garden products may be preserved by storing, canning, drying, freezing, brining, or pickling. Canning is the best-known method because it may be used for all kinds of fruits and vegetables. Present information indicates that there will be a supply of cans, jars, and sealers adequate for the needs of home gardeners. However, in view of wartime shortages of tin and rubber, it may be wise to plan to limit canning to those garden products



that cannot be preserved successfully by other methods. Storing and freezing take less time and labor than canning. Storing, drying, brining, and pickling are less expensive methods.

### Canning

Favorite garden products for canning are tomatoes, green peas, asparagus, green beans, lima beans, corn, and fruits. Fruits and tomatoes are the easiest to handle because they require no higher temperature than boiling for safe keeping. Fruits and tomatoes may be packed hot in jars and then processed in a boiling water bath. Almost all vegetables except tomatoes must be processed under steam pressure in order to get the high temperature necessary for safety. Gardeners who do not have the use of a steam pressure canner will be wise to preserve all vegetables except tomatoes by some other method than canning.

Directions for canning the various garden products are in the U. S. Department of Agriculture's Farmers' Bulletin No. 1762, "Home Canning of Fruits and Vegetables and Meats."

Canned fruits and vegetables are thoroughly cooked, and thus need only reheating if they are to be served hot. As a safety precaution, non-acid canned vegetables should be boiled before serving.

### Storing

Storing is the cheapest and easiest way to keep many vegetables and apples and pears for winter use, if space is available in the basement for storage or if outdoor storage can be provided. Many of the root vegetables as well as onions, pumpkins, and winter squash hold their original flavor better when stored than when preserved in any other way. Vegetables that may be kept by storing include: beets, late cabbage, carrots, late celery, onions, parsnips, potatoes, and sweet potatoes, pumpkins and winter squash, rutabagas, white turnips, winter radishes, and salsify. Winter apples and pears also keep successfully when stored. Vegetables and fruits preserved by storage are still living though dormant, and have different requirements for temperature and moisture. The crops that need cool, moist storage include: cabbage, carrots, beets, parsnips, salsify, turnips, rutabagas, winter radishes, celery, apples, and pears. Potatoes keep best at a temperature between 40 and 50 degrees F.; sweet potatoes between 55 and 60 degrees. Squash and pumpkins need warm and moderately dry storage; onions and dried beans, cool and dry storage.

Unless storage space is extremely limited, apples should not be stored with potatoes or with most root crops, nor celery with turnips or cabbage, because apples and celery will absorb odors from the other products. Turnips should not be placed in the basement as they give off odors that penetrate through the house.

Directions for storing are in the U. S. Department of Agriculture's Farmers' Bulletin 879, "Home Storage of Vegetables."



### Freezing

Freezing and then storing at freezing temperature is the newest method for preserving home garden products. Packaged frozen vegetables and fruit can be held either in the lockers of refrigerated warehouses or in special cabinets for home freezing and storing. All foods must be packaged in moisture-vapor-proof wrappers or cartons and promptly and quickly frozen at a temperature of about zero. All vegetables must be blanched in hot water or steam before freezing. Fruits need no blanching. They may be frozen in sirup, or dry sugar. Berries freeze successfully with no sweetening.

Vegetables which are ordinarily cooked before being eaten usually make excellent frozen products if sufficient care is taken in their selection, preparation, packaging, freezing, and storage. The following are especially suitable for freezing: asparagus, snap beans, green shell beans, lima beans, beets, beet greens, broccoli, carrots, cauliflower, peas, spinach, squash, and sweet corn. Of the fruits, the strawberry, sour cherry, and red raspberry are the most easily frozen and most popular. Other fruits that freeze successfully are peaches, apricots, sweet cherries, most berries, plums, and currants.

### Using Frozen Products

Frozen fruits should be thawed before using but should be served while still very cold. Fruit thaws more evenly in the refrigerator than in a warm room. Frozen fruit should not be removed from the cartons until time for use. This precaution is especially necessary with peaches, for frozen peaches darken very quickly when exposed to air. Most frozen fruit when thawed is used like fresh fruit.

Frozen vegetables are cooked in the same way as fresh vegetables but for a shorter time. Keep vegetables frozen until they are to be cooked. Drop the frozen mass into a small amount of boiling salted water. As the vegetables start thawing, break them apart with a fork. Boil until just tender.

### Drying

Home drying is especially important in wartime because it requires neither sugar nor the metals, rubber, and other scarce materials used in more common types of food preservation.

Fruits are easier to dry than most vegetables. Those commonly dried at home are apples, apricots, figs, peaches, and pears. Among other fruits that may be satisfactorily dried are blackberries, dewberries, loganberries, black raspberries, red raspberries, cherries, nectarines, plums, and prunes.

Vegetables ordinarily dried are sweet corn, shelled mature beans and peas, and okra. Other vegetables added to the list during recent years include beets, leafy green vegetables, green peas, snap beans, peppers, pimientos, pumpkins, and squash. Sweet potatoes should be dried only in those parts of the country where they cannot be stored.



Such leafy green vegetables as beet tops, dandelion greens, kale, mustard greens, and turnip greens are at their best when fresh. They should be dried only in regions where winter gardens are not feasible. Herbs, including celery leaves and parsley, are easily dried in the air.

Directions on how to dry several kinds of fruits and vegetables grown widely in the United States are in the U. S. Department of Agriculture's Farmers' Bulletin 1918, "Drying Foods for Victory Meals."

Directions for use: Cover the dried foods with cold water and soak for 1/2 to 6 hours, adding more water if necessary. Cook until just tender, in the same water in which the dried food was soaked. Most of the liquid will be absorbed during cooking.

Dried vegetables have already been precooked and therefore can be cooked for the table in a very short time. Before cooking, the vegetables should be soaked just long enough to plump. Dried greens do not require soaking. They should be cooked until tender in boiling salted water to cover.

### Pickling

Wartime pickles and relishes are different from the usual kind. Sweet pickles may not be so sweet, nor spiced pickles so spicy. However, pickles will continue to be well-flavored. Dill, mustard, horseradish, and other seasonings used in pickling are grown in the United States, and kitchen gardens are contributing more and more of the old-fashioned herbs.

The four kinds of pickles made at home are fruit pickles, quick-process vegetable pickles (salted down overnight and combined the next day with hot vinegar and spices), cucumber and other brined or cured vegetable pickles, and the relishes.

Directions for making fruit pickles, quick-process vegetable pickles, and such relishes as catsup, chili sauce, and piccalilli are in a mimeograph leaflet on "Homemade Pickles and Relishes," obtainable from the U. S. Department of Agriculture.

Directions for making cured pickles and sauerkraut are in the Department of Agriculture's Farmers' Bulletin 1438, "Making Ferment Pickles." Although cucumbers are probably the best known of the brined pickles, cured pickles are also made of snap beans and green tomatoes, cauliflower and sweet peppers, onions, and corn.



APPENDIX "C"

APR 2 1943

GARDEN SUPPLIES

Fertilizers

A special Victory Garden fertilizer will be available this year through arrangements made jointly by the Department of Agriculture and the War Production Board.

The new Victory Garden fertilizer contains 3 percent nitrogen, 8 percent phosphoric acid, and 7 percent potash. This is a good mixture and the best that can be made available during the wartime emergency. It will be available in 5, 10, 25, 50, and 100-pound packages. It is to be used only for production of food. Use of chemical nitrogen on ornamental plantings is prohibited. The Office of Price Administration has established ceiling prices on the new fertilizer to assure Victory Gardeners that it will be available at prices consistent with its quality value.

Insecticides

By conserving materials of which there will be a limited supply and using available substitutes where necessary, it is expected that Victory Gardens can be adequately protected against insects.

Supplies of pyrethrum and rotenone will be shortest. For rotenone it is possible to substitute nicotine, cryolite, and arsenic except where the residue would be left on parts to be eaten. In some instances, nicotine can be substituted for pyrethrum. Due to military needs, arsenic, copper, and mercury compounds will be available in slightly less than normal quantities.

Garden Tools

The quantity of new garden implements, such as seeders, wheel hoes, hand plows, cultivators, hoes, rakes, and spades, will be limited in 1943. Therefore, care and repair of garden implements will be important. Garden clubs and allotment garden centers can aid in making available supplies most useful through loan arrangements and by collecting implements that would not otherwise be used. Organizing glass jar and cap-collecting and clearing centers will help the canning program.

Seed Supplies

The vegetable seed supply promises to be sufficient for Victory Garden needs in 1943, with the possible exception of onions, some varieties of cabbage, beets and carrots. But waste of seed by careless sowing, indifferent garden care or planting in poor soil, should be avoided. Victory Gardeners should be prepared to accept alternate varieties of some kinds if the first choice is not available. This does not mean that varieties not appropriate for certain situations or purposes should be accepted. The State Extension Service can always give correct information on varieties best suited to farm and home conditions.