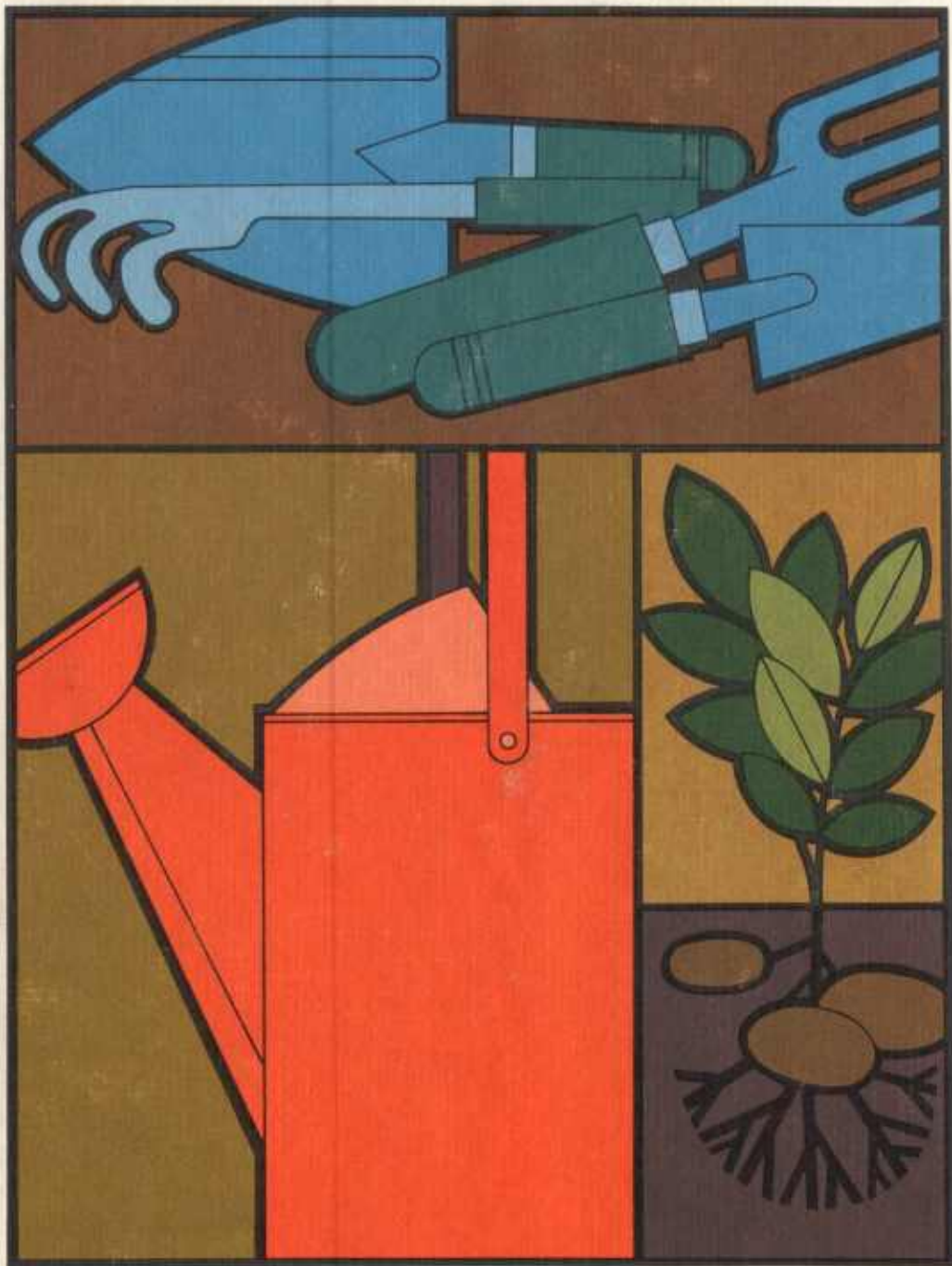


Gardening

For Food and Fun



THE YEARBOOK OF AGRICULTURE / 1977



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3



4



Gardening suggestions are keyed to numbers on photos. 3, try to have a sunny site for your garden. Be sure trees or buildings will not shade the garden during most of the day in the growing season. 4, an electrically heated hotbed will let your plants benefit from sunlight even in winter.



5, buy top quality transplants, with healthy green foliage, not wilted or with dry soil, and free of insects or diseases. 7, a transplant should be placed in the garden at the same depth that it was in the original container. 6, seedlings get off to a good start in fertile and loose-textured soil.



8, planting bean seeds in furrow with string as guide for a straight row. 11, hot caps protect young plants on chilly spring days. 10, plastic and other mulches control weeds and conserve moisture. 12, seedlings can be grown in peat moss containers—reducing problems from insects, diseases, or poor soil.

Some insects help control garden pests. 9, larva of lady bug shown attacking aphids. 13, assassin bug feeds on immature insects. 14, bee, here pollinating almond blossoms, is the top garden pollinator. Avoid spraying when helpful insects are around.



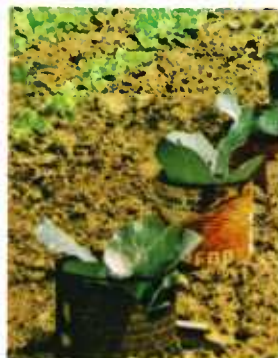


Garden structures: A plastic greenhouse, 16, can be used to start plants in the spring. 15, corrugated plastic row cover is held in place with stakes. 17, twine trellises for peas and wire cages for tomatoes.





17



18



20

Some basic garden activities and aids. 18, hoeing when weeds are small makes weed control easier. 19, cans with bottoms cut off are pushed into ground to protect plants from cutworms. 20, young gardeners planting vegetable seeds in various types of containers.

18

Containers ranging from flower pots to a washtub can be used for growing fruits or vegetables in a sunny window or on a patio.



21



22

23



24



25



Trickle irrigation, 23, using tubes that drip water where it will moisten the root zone, is a suggested water-conserving technique. Harvesting, 24, 25, is an important occasion. Children at a botanical garden weigh their produce. This helps any gardener learn which varieties are the most productive, a guide on what to plant next year.

26



28



27



Kohlrabi, 27, and okra, 28, are unfamiliar to many gardeners, but try them for something new and different. Everyone knows the potato: take care not to damage the spuds if you harvest them with your pitchfork.



29

30, thinning beets allows more room for the remaining plants to grow. The removed tops and immature beets can be cooked and eaten. Small Fry is a popular cherry tomato.



30



Snap beans, turnips, and carrots are popular with home gardeners. The season for these vegetables can be lengthened by successive plantings.





Tying cauliflower leaves helps assure a white head of cauliflower. Supersweet variety of watermelon resists such diseases as anthracnose and fusarium wilt. Buy disease-resistant varieties of plants for your garden when they are available.

36



37



38



All the garden work seems worthwhile when the harvest is good, whether it's a variety of produce, pumpkins, sweet shelled peas, or yellow squash and green beans grown in a community garden, 39.

39





40



A variety of pests usually are ready to take over the garden and injure your crops. 40, white grub works underground and damages roots of many garden plants. Mexican bean beetle, 41, is shown in adult, larva, and egg stages. The adult and larva are feeding on a bean leaf.

41





42, aphids—also called plant lice—are tiny, but can stunt plant growth by sucking plant juices and transmitting virus diseases. Lady bugs are helpful in controlling aphids. 43, corn earworm feeds on corn, tomatoes, and many other plants, including vegetable soybeans (shown here). 44, Colorado potato beetle is a common national pest of potatoes and tomatoes.



45



46



45, cabbage looper infests not only cabbage but cabbage relatives such as broccoli, cauliflower and collards. 46, codling moth is especially bothersome to apple growers. Harlequin bug, 47, attacks primarily cabbage and related plants such as turnips, horseradish and kale.



47

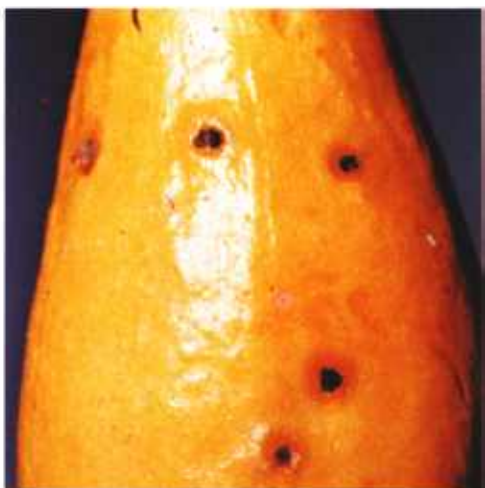


Insects are not the only plant pests—so are disease organisms such as soil rot on sweet potato, 48, and rust on a snap bean leaf, 49.



Among other vegetable plant diseases are scab on squash, 50, and mildew on cucumber, 51.

50



51





If your tomatoes look like 52, they may have fusarium wilt. Closeup shows anthracnose on a tomato. Brown spot on sweet corn leaf, 54, is at an advanced stage and probably would reduce the yield.

53



54

55



57



58

Some fruit that can be grown in the home garden: 55, *Villard Blanc* grapes and 60, *Villard Noir* are used primarily for wine. They also can be eaten at the table. 57, black-sapote is an interesting subtropical fruit. 56, lychee tree provides shade as well as an exotic fruit. It is popular in Florida and Hawaii. 58, a cluster of large-fruited blueberries.



59, straw mulch in a strawberry bed. Besides the usual benefits from mulching, straw keeps berries off the ground and clean.



61



62



Examples of insect and disease pests of fruits and nuts: 62, periodical cicada (17-year locust). Adults deposit eggs inside tree twigs and branches, weakening them so they eventually break. Nymphs hatch from the eggs and feed on roots. 63, powdery mildew on pecans damages the developing nuts. 64, scab on apple reduces quality and yield.

63



64



Diseases of peaches include 61, brown rot and 65, scab. A damaging insect is the peach tree borer, 66. Female adult is shown. The larva, which tunnels in the peach tree trunk, is the damaging stage.



65



66

67



68



69

Safe home food preservation methods let you enjoy produce from your garden year-round. 67, jelly-making is a skill easy to learn. 68, to retain top quality, can or freeze sweet corn quickly after picking. Improper canning or storage wastes food. The cloudy green beans, 69, should be discarded without tasting. 70, an assortment of pickles and relishes can add zest to meals throughout the year.





71, peeling tomatoes after they have been scalded for easy removal of skins.



73, taking peach jar from a hot water canner. Jams and preserves should be processed in a hot water bath to retain best quality. 72, canning tomato juice at a community cannery. Such canneries enable you to process large quantities of garden produce in a short time.

72



73



Foreword

Bob Bergland
Secretary of Agriculture

GARDENING FOR FOOD AND FUN is a practical book for gardeners of all types—from the beginner to the proficient, from young people to retired persons. Advanced gardeners will find this book helpful as a refresher and as a reference source.

There are four sections in this Yearbook: *Introduction to Gardening*, *Home Garden Vegetables, Fruits and Nuts*, and *Home Food Preservation*. The last section tells how to preserve and store your garden produce at peak quality for year-round use, and it stresses the need for proper techniques to avoid health hazards.

Gardening is one of America's most popular activities. A U. S. Department of Agriculture study last year found that nearly half the households surveyed either had a garden or intended to have one.

Why do people garden? The survey suggests three main reasons: 1) a preference for the taste of fresh fruits and vegetables, 2) an interest in gardening as a hobby, 3) a desire to save money and cut the food budget.

But besides saving money, a lot of intangible satisfactions come from gardening and home canning. Who knows the value of being able to say, "I raised it myself" or "I prepared it myself"?

We wish you the best of luck in your gardening, and hope this book will be helpful.

Preface

Jack Hayes
Yearbook Editor

Don't start too big. This advice to new gardeners comes from a seed company horticulturist. A smaller garden that is well kept will produce more and better-quality food than a big one that is neglected, she notes, adding: "You want your gardening to be fun."

An Extension specialist says you can have a productive garden in quite a small space—a 10 by 15 foot area, for example. Or your garden may be limited to a balcony or even a windowsill.

Keep your investment in supplies and equipment to a minimum until you find out whether you want to continue gardening. A good time to make a decision is after harvest. You will know about the work and time required, and the expenses involved. And if you want to continue, you will be more of a realist in opting to stay small or to expand.

This Yearbook has been written by knowledgeable specialists throughout the United States and can be your guide for a successful garden. But also read gardening publications prepared by the *Cooperative Extension Service* in your State, attend gardening meetings that often are held before the growing season, and check your library for useful literature.

Besides the authors, other people with a wide variety of talents and experience contributed to this Yearbook. Personnel of the *Typography and Design Division*, U.S. Government Printing Office, involved in the book include Charles McKeown, Rudie Diamond, Howard Behrens, and Irene Bebbler. Denver Browning of the Yearbook staff prepared the index. Other staff members were Mary Vest, Mary McGowan, and Mark Wolkow.

Robert A. Wearne, *Extension Service*, chaired the Yearbook Committee that planned the book. Allan K. Stoner of the *Agricultural Research Service* was assistant chairman.

Yearbook Committee members were:

William Bailey, *Agricultural Research Service*
Thomas Barksdale, *Agricultural Research Service*
Paul Bergman, *Extension Service*

Cecil Blackwell, *American Society for Horticultural Science*
Howard Brooks, *Agricultural Research Service*
Raymond Brush, *American Association of Nurserymen*
William E. Carnahan, *Extension Service*
Robert Falasca, *American Seed Trade Association*
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Charles McClurg, *University of Maryland*
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Metric Multipliers

Approximate Conversion Factors

Symbol	When you know	Multiply by	To find	Symbol
Length				
in	inches	* 2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
Area				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
Mass (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
Volume				
tsp	teaspoons	5	milliliters	ml
tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
Temperature (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
Symbol	When you know	Multiply by	To find	Symbol
Length				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
Area				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
Mass (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
Volume				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
Temperature (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

* 1 in = 2.54 cm

Photography

William E. Carnahan of the *Extension Service* acted as visual coordinator on the 1977 Yearbook Committee, obtaining photos from a wide variety of sources, and also contributing more photos to the book than anyone else.

Others who helped round up photos for the book include Allan Stoner of the *Agricultural Research Service*, assistant chairman of the Committee; and three Committee members—Raymond Brush, *American Association of Nurserymen*, Robert Falasca, *American Seed Trade Association*, and Evelyn Johnson, *Extension Service*.

George A. Robinson, *Office of Communication*, worked on photographic aspects of the book until he left the U.S. Department of Agriculture (USDA) in 1976.

The Agriculture Department is most grateful to the individuals and organizations contributing photos to this book.

Prints of many of the black and white USDA photos may be obtained from the Photography Division, Office of Communication, Room 536-A, U.S. Department of Agriculture, Washington, D.C. 20250. Generally a charge is made to cover expenses. Duplicate slides of some of the color photos also may be ordered. Color slide sets of plant pests, with photography by Clemson University, can be purchased from USDA.

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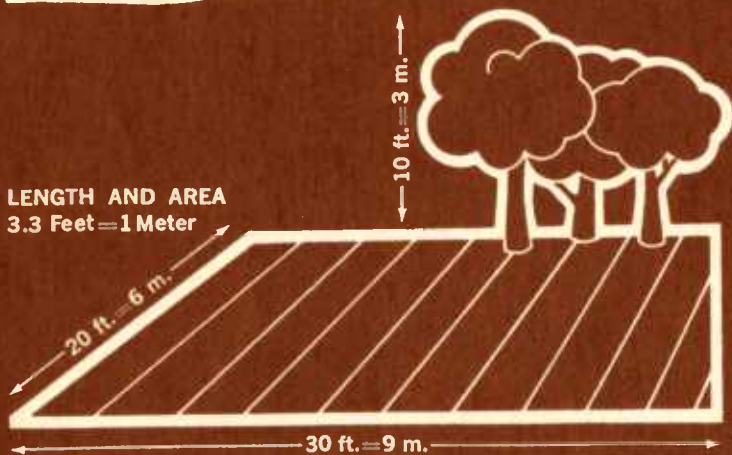
3 Pounds (lbs.) = 1.4 Kilograms

4 Pounds (lbs.) = 1.8 Kilograms

5 Pounds (lbs.) = 2.3 Kilograms

LENGTH AND AREA

3.3 Feet = 1 Meter



12 Inches = 30.48 Centimeters

