



CANDLIN

*The* **BACKYARD HOMESTEADER**



# *The* **BACKYARD HOMESTEADER**

**How to Save Water, Keep Bees, Eat from Your Garden,  
and Live a More Sustainable Life**



**ALISON CANDLIN**

## **THE ESSENTIAL BEGINNER'S MANUAL ON LIVING A GREENER, HEALTHIER, AND MORE SELF-SUFFICIENT LIFESTYLE.**

Absolutely all you need to know to provide you and your family with homegrown food throughout the year. Alison Candlin offers easy-to-follow advice on planning, establishing, and maintaining a small-acre farm, an allotment, or a backyard garden. With step-by-step instructions, photographs, and illustrations, this book is a practical and comprehensive guide to living off the land.



\$30.00 U.S.

Jacketless Hardcover  
7 3/5 x 9 1/4, 256 Pages  
Color Photographs  
Pub Date: March 2021

ISBN-13: 978-1-4236-5678-4

5 3 0 0 0



9 781423 656784



**GIBBS  
SMITH**



# Contents

Foreword 6

## Starting Out

Planning 12  
Clearing Overgrown Land 21  
Improving the Soil 23  
Composting and Amending 25  
Improving Drainage 27  
Digging 28  
Fences and Other Boundaries 30  
Tools and Equipment 33  
The Greenhouse 34  
Greenhouse Management 37  
Cloches 39  
Crop Rotation 40  
Watering and Irrigation 42

## Calendar of Seasonal Tasks

The Year in the Garden 48  
Spring 49  
Summer 51  
Fall 54  
Winter 55

## Growing Vegetables

Growing Vegetables 58  
Raising Vegetable Seedlings 59  
Growing Cole Crops 62  
Growing Root Vegetables 66  
Growing Beans and Peas 73  
Growing Potatoes 79  
Growing Salad Greens 82  
Growing Tomatoes 87  
Other Vegetable Crops 92  
Growing Asparagus 99  
Greenhouse Vegetables 101  
Growing Herbs 104

## Growing Fruit

Growing Fruit 110  
Planting Out 111  
Growing Apples 113  
Growing Pears 118  
Other Tree Fruit 119  
Growing Figs and Grapes 124  
Greenhouse Fruit 126  
Growing Rhubarb 128  
Growing Strawberries 129  
Other Berries 132

## Directory of Pests and Diseases

Preventing Pests and Diseases 142  
Treating Plant Problems 143  
Visible Pests 144  
Leaves with Holes 144  
Distorted Leaves 145  
Discolored Leaves 146  
Distorted or Wilted Shoots 147  
Problems with Stems, Bark, or Branches 147  
Wilting or Withered Plant 148  
Fruit Disorders 149  
Problems with Beans, Peas, and Tomatoes 150  
Root Vegetable Disorders 151

## Keeping Animals

Keeping Animals 154  
Keeping Pigs 155  
Keeping Goats 160  
Keeping Chickens 166  
Ducks, Geese, and Turkeys 171  
Keeping Bees 175

## Food from Nature

Gathering from the Wild 180  
Herbs and Plants 181  
Fruit and Nuts 186  
Mushrooms 190  
Fishing 195  
Food from the Oceans 198  
Hunting 201  
Gathering Firewood 202

## Preserving Your Produce

Preserving Your Produce 206  
Preserving Vegetables 207  
Equipment for Making Preserves 212  
Pickles, Chutney, and Relishes 214  
Preserving Herbs 219  
Preserving Fruit 220  
Canning Fruit 224  
Making Jams and Jellies 226  
Making Wine and Cider 230  
Goats' Milk 235  
Preserving Meat and Fish 237

## Water and Energy Conservation

The Self-Sufficient Home 240  
Conserving Energy 241  
Keeping in the Heat 243  
Solar Power 244  
Alternative Energy Sources 246  
Saving and Recycling Water 247





## The Greenhouse

A greenhouse is by no means an essential item if you want to grow your own garden produce but in colder regions it can lengthen the growing season and widen the choice of crops that you can cultivate.

If you don't already have a greenhouse, the cost of buying and heating one (if you choose to do so) should be carefully weighed against the value of the crops you will produce. A greenhouse has two main functions: it enables you to produce a variety of crops (tomatoes and peppers, for example) outside the usual growing season, or to grow specialty crops that struggle outdoors in cooler regions.

There are three main types of greenhouse and your choice may well be guided by the site you have

*Metal-framed greenhouses are light and the frames are slender, allowing the maximum possible area of glazing.*



available for it, but conventional ridge-roofed greenhouses are still considered by many to be the best shape of all. Buy the largest you can afford or accommodate—you are unlikely to wish you had less space.

### Span or gable roof

This is the most popular and useful greenhouse choice for vegetable production. The walls can be glazed from top to bottom, or may have knee walls of 3 ft (1 m) or so—typically concrete block, stone, solid wood, or aluminum, depending on the rest of the greenhouse construction.

### Lean-to

A simpler structure that is built against a house or garage wall. The wall absorbs heat during the day and releases it into the greenhouse at night.

A lean-to can also be built beside a potting shed, to keep tools and equipment close by. A disadvantage of a lean-to design is that it has light coming from only one side, so it is best constructed against a south- or

west-facing wall. A lean-to is ideal for starting seeds, or growing tender crops like tomatoes.

### Dutch gable roof

The sloping sides are constructed of large panes of glazing and attract the maximum amount of light.

### Variations on the basic designs

Even among these three basic shapes there are many different designs, and it is also possible to get circular or hexagonal-shaped greenhouses. These look attractive and are extremely practical in many ways because they allow in as much light as possible, but they are generally not as good for vegetable and fruit production as the more conventional types because their size is usually limited.

The basic frame of a greenhouse may be constructed of wood or metal—galvanized steel or aluminum, for example. Wooden

*Hoop houses offer lots of space for growing. They may not look sophisticated, but they make an excellent, functional choice.*



frames look attractive, but the wood must be rot-resistant or it will warp and split. It must also be treated or painted fairly regularly to keep it in good condition.

Metal kit greenhouses generally need very little maintenance and are easier to construct, but the material retains less warmth than wood.

Although the glazing in a greenhouse is traditionally glass, it is possible to use polycarbonate or acrylic panels instead. This is cheaper than glass, but although it does not break, it scratches easily and heavily and needs renewing at regular intervals. Hoop houses (opposite) are usually made of polyethylene film stretched over a hooped PVC frame.

The floor of the greenhouse can consist of soil for beds, or may be poured concrete, lumber, or gravel throughout. Whichever you choose, the greenhouse walls must be erected on a solid, frost-proof foundation.

## STAGING

**If your greenhouse does not come equipped with staging, or shelving, you will need to install some to make the most of your space.**

**Benches positioned along one wall at roughly waist height provide a working platform and a second level for growing, if you also use the floor or a low-level row of staging, too.**

Staging can be made from wood or metal or wire shelving that also allow for drainage. Some staging can be reversible, with one solid side to act as a flat bench and one side with lips to form a tray that will retain water for irrigating plants left standing in it. Some are even deep enough to be used as a potting tray, or house removable plastic potting trays.

Adaptable systems make the staging versatile, allowing you to grow tall crops on the floor or lower level, lifting out the upper staging to give the crops more room.

*Staging provides a comfortable working platform and leaves room beneath for storage, dormant plants, or more young seedlings.*

## POSITIONING THE GREENHOUSE

**In most cases the greenhouse has to go wherever there is room for it, but it must be in a sunny position and not heavily overshadowed by trees.**

It is generally most convenient if the greenhouse is positioned close to the house and it should have solid paths leading to it, to make it easier to reach with wheelbarrows and in wet or snowy weather. Some gardeners think that it is best to site a greenhouse with the roof ridge running east-west; others prefer a north-south orientation. East-west allows for more evenly distributed light to reach the whole greenhouse; north-south gives one warmer and one cooler side. Choose the orientation that suits your region, your site, and your intended crops.





## Growing fruit

By and large, fruit falls into two categories—tree fruit and soft fruit. Many older city and town gardens contain at least one fruit tree. You don't need to plant an orchard: almost all gardens will have room to grow some fruit and with more than a couple of trees you can easily find yourself with more fruit than you can possibly eat, so you can preserve it for future use.

Fruit is generally seen as less essential than vegetables in a self-sufficient garden, but a couple of fruit trees and a handful of bushes will produce a surprisingly large quantity of fruit that will make a significant contribution to your family's table. Most types of fruit are easy to freeze and to preserve in other ways that will see you through the winter.

A row of raspberry canes can be used as a productive windbreak to shelter more tender plants behind, and an apple tree makes a charming addition to the ornamental garden. To save space, many tree fruits or vines can be trained against a wall as espaliers or in a fan shape. They are not hard to incorporate into an established vegetable garden or to fit into a new kitchen garden plan.

### Fruits in two main groups

The tree fruits covered in this book include apples, pears, peaches, nectarines, plums, damsons, gages, apricots, cherries, figs, and citrus fruits. The soft fruits include raspberries, loganberries, blackberries, blueberries, currants, gooseberries, and strawberries.



*Soft fruits are the taste of summer. Most yards have room for a wide variety, including currants, strawberries, gooseberries, raspberries, and blackberries.*

Grapes, kiwi, melons, and rhubarb do not fit into either category—grapes and kiwi grow on perennial vines, melons are annual plants, and rhubarb grows from tubers, but they are all popular fruits and you will find all the growing advice you need in these pages.

Commercial vineyards can be found as far north as Ontario and Minnesota, but for edible grapes in short-summer zones, you will need a warm microclimate, a south-facing wall, or a greenhouse. Melons also need plenty of warmth, but watermelons are too sprawling for most greenhouses. Smaller cantaloupes and honeydews can fit into a small greenhouse, however.

### Modern and compact trees

Tree fruit grown on traditional standard or half-standard trees can reach heights and spreads of 20 ft (6 m) and more, which can make picking difficult and possibly dangerous. Even if a garden is big enough to take a couple of these trees, it is rarely an efficient allocation of space, which would be far more productively used

growing other fruit and vegetables or supporting livestock.

Most tree fruit bred for planting in home gardens now is produced by grafting the different varieties onto special "dwarfing" rootstocks. This restricts the tree's growth in order to keep it manageable, but also gives quicker fruit production. Where once it took 10 years or so for trees to start to bear fruit, most modern trees will now do so in their third year.

Make sure when purchasing tree fruit that the trees you buy are growing on the right size rootstocks, which are numbered according to their size. Check the plant label for a guide to the ultimate size of the tree in maturity.

### Keeping trees healthy

To make sure that your fruit trees remain healthy and productive, they must be pruned regularly. This will help to minimize the risk of disease, which is greater when branches are

crowded or crossing within the tree, but will also concentrate the tree's energy into producing fruit, rather than unnecessary branches and foliage. Left to their own devices, trees will continue to produce an abundance of fruit, but the quality and taste will almost certainly deteriorate with each year.

### Sweet and simple soft fruit

Soft fruit has no such size problems. The different types grow either on bushes (blueberries, currants, and gooseberries) or canes (raspberries, loganberries, and blackberries). Although these also need regular pruning and training if they are to be fully productive, this is a less complicated task than for tree fruit.

Strawberries grow on neither bushes nor canes, but on low, spreading plants, which put out runners that produce new plants as they grow. These new plants can be separated from the parent plant and transplanted elsewhere or passed on to friends. Save some to renew your plants every couple of years.

### Choosing what to grow

There are endless varieties of all types of tree and soft fruit. Some trees need a period of winter dormancy; others must have hot weather to thrive. The best way to choose what to grow in your particular garden is to consult a local nursery or your local Cooperative Extension Office to see what grows best in your area. Many nurseries stock a limited number of varieties, because over the years they have established which types are the most successful for their customers. If you wish to try growing more exotic varieties, there are a number of high-quality mail-order nurseries that sell dwarf fruit trees and cane fruit.

## Planting Out

Most fruits are bought as bare-root trees, bushes, or canes, rather than being grown from seed. They should be planted during winter, when they are dormant, but not when the ground is frozen or waterlogged. The ideal time is in early and mid-winter, but planting can be done any time through to the following spring. It is best to buy two- or three-year-old fruit trees and soft fruit bushes, and one-year-old fruit canes.

If you will not be able to plant the fruit for a few days after buying it, leave the roots encased in a protective wrapping and keep the plant in a cool shed. The day before planting, inspect the roots and if they are dry, soak them in a bucket of water for a few hours.

### Planting a bush

Dig a hole wide enough to take the roots of the bush and fork well-rotted organic matter into the bottom. Place the bush in the hole, spread out the roots, and cut off any that are growing upwards.

Fill in around the roots with soil and firm it down. When planted, the base of the bush should be just covered with soil. Mulch the base with compost, straw, or leafmold.



### PLANTING A FRUIT TREE



**1** If the roots of the tree are dry, soak them in water before planting. Place a layer of compost in a wide hole, position the tree, and spread out the roots.



**2** Mix soil with compost and fill in around the roots. Shake the tree to settle the soil. Firm gently with your feet, top up if necessary; firm again.

**3** Water around the roots well and give the soil a mulch of garden compost, bark mulch, straw, or leafmold. Secure the top of the stem to a supporting stake with a tree tie or adjustable strap.







To start a colony of your own, you need a nucleus of bees, including a queen bee that is laying. Introduce this to your hive and the colony will build up to around 40,000 bees.

## THE HIVE

**This is the most expensive item of equipment, but may often be acquired secondhand or in a starter kit. Scrub and disinfect it before use, and check whether it needs any repairs.**

Most beekeepers use a hive that has a frame designed for the bees to make their honeycombs. A model with easy-to-remove frames called the Langstroth is the most popular.

### Positioning hives

Do not site hives near a sidewalk, walking trail, driveway, or road, where people could be bothered by the flight of the bees, nor under heavy trees where the spot is likely to be damp, or a frost pocket. Ideally, they need a place that is screened off from the rest of the garden.

## ACQUIRING BEES

**It is always best to acquire bees from a local beekeeper: the bees are adapted to a particular region and its local conditions. You can, however, also purchase bees by mail order.**

The easiest way to start a new colony is to acquire a nucleus from another beekeeper. This is a mini-colony, consisting of about five frames of drawn comb with 5,000–8,000 bees and a laying queen. A beekeeper should not let you have this nucleus until it is certain that the queen is laying—early summer is most likely.

### Getting started

The nucleus is put into the center of the lowest box—the brood chamber or brood box—which is filled on either side with frames of foundation. Another box of foundation is placed above this. The initial aim is to build up the colony, but the queen will lay according to the food coming in and as there will not be many spare bees to go out to collect nectar, you will need to give supplementary feed. Make a syrup from 2 lbs (900 g) of sugar dissolved in 1 pint (550 ml) of hot water, cooled to room temperature. The amount of feeding will depend on the weather.

It is unlikely that you will get any honey in the first year, but if the weather is right in summer (hot, sunny, sultry days with rain at night to encourage plant growth) you can replace the feeder with a super (a box of eleven frames) full of foundation frames. At the end of the season, you could get between 10–20 lbs (4.5–9 kg) of honey.

As the colony builds up over the first few weeks, move the frames around every two weeks or so, being careful not to split the brood. By

## Dealing with stings

If you keep bees, you will get stung sooner or later. Scratch out the stinger right away, using a hive tool or fingernail. The bee leaves a poison sac with the stinger, plus the mechanism that continues to pump the poison from the sac, so if you squeeze the stinger, it will only send the poison shooting into you, causing more irritation and swelling. Generally, the pain stops in a few minutes and the swelling subsides in a few hours. If it is really painful, bathe the sting with witch hazel or soak with diluted Epsom salts.

winter you will have two full boxes of drawn comb which is ideal for overwintering the bees inside.

### Managing the colony

Inspect the hive every few weeks from early- to midsummer to make sure the queen is laying and to see if there are any queen cells. These are much larger than ordinary cells and will protrude out from the comb. If you allow a new queen to hatch out, the colony will swarm.

Either remove the frame and destroy the queen cells, or make an artificial swarm (a natural swarm is when all the bees leave the hive and alight on nearby trees and structures). Find the old queen in the hive and put her and the frame of eggs she is on in another box with some frames of drawn comb. Leave these on the current site and put all the brood frames, including the queen cells together with the drones, on another site. When the foraging bees return, they will automatically



go into the old hive; this will house the queen and all the foraging bees, and is known as an artificial swarm.

Meanwhile, in the adjacent site, with the nurse bees and the queen cells, panic will set in as there is no food coming into the colony and the bees will tear down all the queen cells except for one. The new queen will emerge, leave the hive, get mated, and come back to start laying, beginning a new colony. If you only want one colony, find the original queen and destroy her or give her away. Put the new queen into the old hive and the bees will follow her. Renew the queen in a colony every two years.

## REMOVING HONEY

**Honey may be taken from the hive from midsummer to late summer, depending on the available nectar.**

Put a board with a one-way bee escape under the supers and, when the bees have gone down to the lower boxes (after about 48 hours), remove the top frames. To extract the honey you must first scrape the wax cappings on the cells off with a large

uncapping knife. The frames are then put into a special centrifuge or honey extractor. It spins the frames round at speed so the honey falls into the bottom of the drum. From there it is filtered into the honey tank, from where it can be drawn off into jars. Another method is to simply cut the honeycomb from the frame, then to cut smaller pieces from the comb. Separate the pieces and let the honey drain off, then place them in containers and seal.

Extract honey from all the boxes above the queen excluder. This leaves some honey in the lower boxes, but not enough to feed the bees through the winter, so give them a syrup feed from fall.

## SWARMING

**If you inspect your bees regularly and follow the procedure outlined above, experienced beekeepers would claim that there is no reason for bees swarming.**

Bees will only swarm if the hive becomes overcrowded or if a new queen hatches. If the bees do swarm, about half of them will leave

*Your honey will have some of the flavor of the flowers the bees fed on, although in most small farms and gardens, they will have flitted from plant to plant, giving no particular taste.*

the hive with the queen. They will cluster nearby and, unless they are collected by a beekeeper, move off a day or two later. If you lose sight of the bees, another beekeeper may collect and claim them.

### Collecting a swarm

Place a white sheet on the ground beneath the swarm. Hold a strong cardboard box or straw basket directly under the largest part of the swarm and shake the branch or bush where the bees are resting. This will cause most of the bees to fall into the box. Invert the box over the sheet and prop up one side with a small stone. After an hour or so, all the bees should be in the box.

Return at dusk and wrap the box in the sheet, then take the swarm to a new hive. Place a board in front of the hive, sloping up to the entrance. Spread the sheet over the board and shake the bees out of the box. Bees run uphill when they are scared, so they will run up into the hive.





## Mushrooms

It is imperative to be able to identify mushrooms if you intend to gather them for eating, and the best way to learn to do this is to spend time collecting with someone already experienced. Contact your local mycological society or mushroom club.

Most mushrooms are found in their greatest numbers in forests where the ground is rich in leafmold and, therefore, humus. In general, they like warm and damp, but not water-logged, conditions. Edible species appear from spring through fall, depending on the type. For instance, porcini mushrooms are available for gathering in spring and fall, but morels are found only in early spring.

### Meadow mushrooms

The most important exceptions to the forest habitat are the meadow mushroom and the horse mushroom, and these are among the most coveted and sought-after of all wild, edible fungi.

Both field and horse mushrooms are found in meadows and pastures. The horse mushroom, as its name suggests, likes grassy fields frequented by horses, but also cattle. Look for it near cowsheds or horses' shelters in fields and along riding trails. They often, although not always, appear year after year in the same spot.

### Safety tips and rules for picking

In the Pacific Northwest and parts of California, commercial mushroom gathering has led to the imposition of collection limits either at the state level, or by local Parks departments, or the Provincial Forest Service.

Your local mycological society will be aware of any restrictions on collecting in your area, so to avoid possible fines, check if there are such restrictions in place and collect mushrooms in a sustainable manner.

There are some simple, but essential, points to remember when collecting mushrooms. Always follow these rules to keep yourself safe and healthy—and above all, never pick or eat anything you cannot identify.

Harvest mushrooms by twisting them by the stalk so they break free at the base. Pulling them out of the ground destroys the whole plant and stops it growing back; cutting them with a knife will hamper your identification, as the base of the stem is often a guiding feature.

Collect them on a fine day, not when it is raining, as mushrooms will deteriorate quickly if picked when they are wet. Use waxed paper bags or put them into an open container—a shallow basket is ideal; a plastic bag is not, as it provides the perfect conditions for very quick decomposition.

The mushrooms you collect should be mature, but not so old that they are beginning to decay. Do not pick young mushrooms, the tops of which are still bunched or buttoned; a poisonous species could easily be mistaken for an edible one.

Pick only perfect specimens; not those that are ragged, torn, or slimy. Go through them again when you get home, and discard any that you feel are suspect. Cook or dry mushrooms (see page 209) as soon as possible after collecting—and wash them very thoroughly first.

*A cluster of edible parasol mushrooms this large on the forest floor is a lucky find. Mushrooms can be found in the same spots year after year.*





## Food from the Seashore

The shellfish, and the mollusks in particular, that live on the rocks or in the sand or tidepools at the water's edge are easy to gather, with no special equipment. You will also find many edible plants living close to the sea, which make the perfect accompaniment.

Pick your time and place for coastal foraging. Most shellfish are best looked for in tidepools and intertidal zones as low tide approaches. Once the water has ebbed away, they cling tightly to their rocks and are almost impossible to pry off.

State, provincial, federal, and local authorities all monitor shellfish to ensure that they are safe to catch and to ensure that they are not overharvested. Notices are usually posted in areas where there are known shellfish hazards, such as a rise in bacteria or algae levels in the water. However, before eating any shellfish, be sure you know it is safe and legal to harvest and eat in the area. If you are visiting a coastal area, look for recreational shellfish reserves if possible.

### Mollusks

Shellfish, and mollusks in particular, should always be treated with caution but, by and large, they do not deserve the reputation they have for causing food poisoning. They feed by pumping water through their shells, filtering out the food particles as they do so, and any bacteria contained in the water tends to be retained. For this reason, mollusks found near sewage outlets should always be left alone, and it is wise

to do the same with those living on piers, boardwalks, or other possible sources of pollution. Collect them only from clean, unpolluted stretches of water.

Some people advise against collecting mollusks during the warmer summer months. This is their breeding season, so they will necessarily not be in prime condition, and the warmer temperatures of the water can increase the chances of dangerous bacteria multiplying.

The other important point about shellfish of all kinds is that they decompose very quickly. Never collect any that are already dead (if the shell is open, or if they do not hold fast to their rocky stronghold, this is a sure sign). They should be alive at the moment of cooking, which should be done as quickly as possible after collection. Wash them very well first.

### Clams

A great favorite, clams are most frequently found in the muddy sands exposed between tides. They are among the largest of the mollusks, and usually live quite deep beneath the surface, so you will have to dig for them. On the Atlantic coast, softshell steamers and hardshell quahogs are the most common species, followed by surf and razor clams. On the Pacific coast, clams vary from manila to Pacific littleneck to tiny, tender butterclams.

Clams are often difficult to pry open. Insert a sharp knife (preferably a special oyster-shucking knife) between the shells at the hinge and twist it. Cut off and discard the fleshy siphon. Alternatively, they can be persuaded to open by shaking the shells in a saucepan over a medium heat for a few minutes.

You can steam, grill, or fry clams. To steam them, place in less than an inch (2.5 cm) of water—seasoned with wine, lemon, garlic, and herbs—and bring to a boil. Simmer until the shells open; throw away those that don't open. You can eat them like this, fry them, or add them to chowder, stews, or pasta sauces.

Giant geoduck clams are found in the Pacific Northwest. They must be dug from the sand from a depth of up to 3 ft (1 m) at low tide. The meat can be used for stews, pasta sauces, or ceviche.

### Limpets

These single-shelled mollusks cling to rocks, docks, piers, and other structures, but should be gathered only from clean rocks that are washed daily by the incoming tides. Pry them free with a knife and soak them before cooking. They are much tougher than clams and will need long, gentle simmering if they are not to be rather chewy.

### Mussels

Northern blue mussels are found primarily on the east coast, though they can also be found on the Pacific coast, along with California mussels. These bivalves are found on rocks close to the shoreline. Because they are so susceptible to pollution, be especially sure that you only gather them from waters that are not under quarantine. Take them only from the low rocks that are washed by each tide. Discard any with broken shells, or those that do not close immediately if the shell is tapped.

Scrub the shells and soak them for five or six hours in cold water, preferably with a handful of oatmeal added. The mussels will feed on this, excreting the dirt in their shells. Discard any that open or float to the



surface at this time then cook by steaming over a gentle heat or by baking them.

### Oysters

There are many opinions on the relative merits of various east coast versus west coast oysters, but no matter what your preference, you will have to be aware of harvesting

limitations and quarantines, especially for red tide (a type of naturally occurring algae bloom). If you do find oysters, do not let your enthusiasm mar your judgement—if they are in polluted waters, leave them alone.

Oysters live in shallow waters, often near or attached to rocks or stones. To eat them raw; pry open

*Only gather mussels from places that are free from pollution. Discard any that are open or that open when soaked in water before cooking, as they are likely to be bad.*

the shell open by inserting a sharp, strong knife at the hinge, twist it, then use it to free the oyster from the outer shell. Add a squeeze of lemon juice and swallow. Oysters can also be used in recipes for other shellfish.

### Scallops

The edible portion of a scallop is actually the muscular tissue that holds the shell together. Sweet bay scallops are found in seagrass beds and can be harvested by wading through the shallow water with a net and a bucket.

In some places, scallops can only be harvested by diving or dip netting. Check with the local experts before you begin.

## COASTAL PLANTS AND SEAWEED

**Some coastal plants and seaweeds are edible and delicious. They are particularly well-suited to eating with the fish and shellfish found living alongside them.**

Seaweeds are rich sources of iron and minerals. They are often treated with the same suspicion as mushrooms, but, like them, they can provide a tasty, free meal. However, as with any wild-gathered food, be sure you know what you are harvesting before you eat it.

Seaweeds are an essential ingredient of many Asian dishes. Always wash seaweeds very thoroughly in cold running water before cooking them; they are likely to be salty and gritty.





## Preserving Fruit

The only fruits that can be kept raw for longer than a month are the later varieties of apple. All other fruits must be preserved if you cannot eat them fresh from the tree or bush.

The most common ways to preserve fruit are freezing and canning. Pickling, jam, and jelly-making are other methods useful for using up a glut of fruit. A few fruits may also be dried.

### DRYING

**This method is particularly suitable for apricots, peaches, and plums, but apples, pears, and grapes may be dried too.**

The principle of drying fruits is much the same as that for drying vegetables (see page 208), although if you use an oven rather than a dehydrator, do not let the temperature of the oven rise above 120°F (50°C) for at least the first hour, otherwise the skins will either harden or burst apart.

You can also dry fruits at normal air temperature. Prepare the fruits as you would for dehydrating for oven drying then spread them on wire racks or thread onto lengths of dowel and leave in a warm, dry place until shriveled and dry.

#### Using dried fruits

You can use dried fruits just as they are or snack on them like chips, but for cooking they are often brought back to a more moist state. Soak the fruit in water, with sugar added if you like, until the pieces are soft and ready to use.

### BEST METHODS FOR STORING FRUIT

The most successful and usual method of preserving or storing fruit is given in the chart below.

FRUIT	METHOD OF STORING OR PRESERVING
Apple	Store later varieties wrapped in waxed paper in boxes; otherwise freeze or dry
Apricot	Can be kept for up to a month in wooden trays in a cool, airy place, providing they were only just ripe when picked. Otherwise, freeze, can, pickle, or make jam
Blackberry	Freeze, bottle, can, or make jam
Black currant	Freeze, can, or make jam or jelly
Blueberry	Freeze
Crabapple	Pickle, or make jam or jelly
Cherry	Freeze, can, or make jam
Red and white currant	Freeze, can, or make jelly
Fig	Freeze, can, or make jam
Gooseberry	Freeze, can, or make jam
Grape	Dry, or make jelly or wine (see page 230)
Lemon	Can or make jam
Loganberry	Freeze, can, or make jam
Melon	Freeze
Peach and nectarine	Freeze, can, or make jam
Pear	Freeze, can, dry, or make jam
Plum	Freeze, can, dry, or make jam
Quince	Make jelly
Raspberry	Freeze, can, or make jam
Rhubarb	Freeze or can
Strawberry	Freeze, can, or make jam

#### Apricots, peaches, and plums

Choose the largest varieties and unblemished fruit. Wash the fruit if necessary, then halve it and remove the pits. If you do not have a dehydrator, cover wire racks with cheesecloth or foil and lay the fruit out on these, in single layers, not touching. Place in an oven heated to the temperature recommended opposite and leave until the skins start to shrivel then raise the temperature very slightly.



Plums can be frozen, canned, dried, or used to make jam. Cut them in half and remove the pit before preserving them.



Thread apple rings onto a length of wooden dowel and hang it somewhere warm and dry until the fruit is ready.

### OVEN-DRYING FRUIT

**Commercially dried fruit is often prepared using varieties specially developed to retain their color when dried. Don't despair if your own efforts look less than perfect—they will still taste delicious. You can follow these steps for drying root and tuber vegetables, too. Blanch vegetables, except for tomatoes, sweet peppers, okra, mushrooms, beets, and onions, before drying. For mushrooms, remove the stalks.**

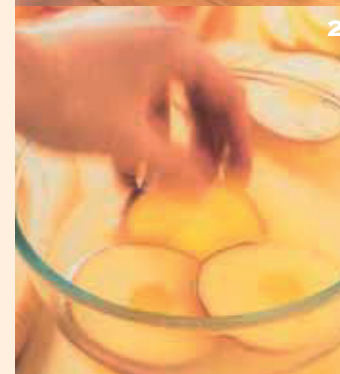
**1** Start with only good quality, firm, blemish-free fruit that is just ripe. Peel, core, and slice as necessary, cutting very thin and even slices.

**2** For fruits that discolor, such as apples and pears, dip the slices in a weak solution of lemon juice: 6 tablespoons of lemon juice to 1 pint (500 ml) of water.

**3** Lie the slices on cheesecloth-covered racks over a foil-lined baking sheet, making sure that they do not touch. Arrange halved fruits cut-side down. Put the oven on its lowest setting, put the fruit in, and leave the door slightly ajar.

**4** Dry for the times given in the table (right), turning midway through and switching the position of trays in the oven. The food is ready when it is dry and leathery.

**5** Leave to cool completely before storing. Pack slices in airtight containers, layered between parchment paper, and store in a cool cupboard.



### OVEN-DRYING TIMES FOR FRUIT

With your oven on its lowest setting, dry sliced and prepared fruits (and vegetables) as follows

FRUIT	TIME
Apple rings	6–8 hours
Apricots, halved and pitted	36–48 hours
Bananas, peeled and halved lengthwise	10–16 hours
Berries, left whole	12–18 hours
Cherries, pitted	18–24 hours
Herbs, tied in bundles	12–16 hours
Peaches, peeled, halved, and pitted	36–48 hours
Peaches, sliced	12–16 hours
Pears, peeled, halved, and cored	36–48 hours
Pineapple, core and cut to ¼ in (5 mm) rings	36–48 hours
Plums, halved	18–24 hours
Vegetables, ¼ in (5 mm) slices	2 hours
Vegetables, ½ in (10 mm) slices	7–8 hours