Vegan-Organic Information Sheet #6 (60p)

Gardening for Wildlife

By Pauline Lloyd

BIRDS * BEES * BUTTERFLIES

How we can make our gardens and allotments more attractive to wildlife

Growing with concern for people, animals and the environment

Organic growing involves treating the soil, the growing environment and the world environment as a resource to be preserved for future generations, rather than exploited in the short term. Vegan-organics means doing this without any animal products at all, which is not difficult when you know how. *All soil fertility ultimately depends on plants and minerals - these do not have to be passed through an animal in order to work.* Fertility can be maintained by plant-based composts, green manures, mulches, chipped branch wood, crop rotations and any other method that is sustainable, ecologically benign and not dependent upon animal exploitation.

The guidelines below do not attempt to be fully comprehensive. *The extent to which you adhere to any system really depends on you, your conscience and circumstances.* We can only do our best with our available time and money. The Vegan-Organic Network has now published comprehensive Stockfree Organic Standards, which are available to commercial growers and can also be used as a reference for home growers. Of course, no one person or organisation knows everything about the subject, so constant co-operation and updating of ideas and information is needed.

Whilst conventional cultivation relies on synthetic chemicals and animal products, traditional organic production also generally relies on animal wastes and by-products. Both involve the exploitation of living creatures, and the inefficient use of land, water and energy resources. Vegan-organic methods minimise these drawbacks. Many people who are not themselves vegan or vegetarian are coming to appreciate that animal-free growing is the most sustainable system: it is the future of organics.

ENCOURAGING BIRDS INTO YOUR GARDEN

Why birds are important to the gardener

Birds are of particular importance to the vegan-organic gardener and allotment holder because they consume many plant-damaging creatures. They are, therefore, very useful to have around if you want to avoid using pesticides and other harmful chemicals. Thrushes, for example, eat slugs and snails and can thus prevent much damage to your crops. Wrens eat many types of insects and their larvae. Blue tits and great tits adore caterpillars and green woodpeckers will soon polish off a colony of ants. In fact many species of birds feed mainly on insects whilst they are breeding and then switch to a diet consisting mainly of seeds or berries in the autumn and winter. The parent birds are kept amazingly busy gathering insects for their young throughout the breeding season. Great tits, for example, can make up to 800 trips a day in order to supply their young with food, their diet consisting mainly of caterpillars. Now that's an awful lot of plant-damaging creatures!

Of course birds aren't always entirely good news for gardeners and if you are not careful they can do a fair amount of damage to your crops.

Pigeons, for example, are quite par-

tial to brassicas such as Brussels sprouts and fruit-eating birds can quickly devastate fruit trees and bushes. However, it is

Crossbill

usually possible to protect crops from such damage fairly easily. So on balance, having more birds around is a tremendous asset to the vegan-organic gardener and as well as being useful predators, birds are usually very entertaining to watch. Also, by making your garden more bird-friendly you will be helping to ensure birds survive and maintain their numbers. Birds' natural habitats - hedgerows, meadows and woodlands - are disappearing at an alarming rate and gardens are becoming an increasingly important substitute habitat for many kinds of birds.

Ways of attracting birds into the garden

There are many simple things that we can do to entice birds into the garden and encourage them to live and breed there. Basically, birds need water for bathing and drinking, a constant supply of food, shelter from the elements and nest sites. Water can be supplied by making a small pond with marshy edges or if that isn't possible by obtaining a birdbath or drinking dish and regularly changing the water. Nest boxes can be installed for breeding purposes and climbing plants (e.g. ivy, honeysuckle and clematis) and shrubs, especially prickly shrubs, will provide additional natural nest sites as well as berries for the birds to eat. A well-stocked bird table will provide food, but of course providing natural sources of food is even better, particularly on an allotment where maintaining a bird table would be much more difficult. With careful planning, it should be possible to provide a natural supply of food for birds for most of the year. Plants and shrubs, which provide fruit, berries and seeds are especially useful to birds and don't be in too much of a hurry to pull up your weeds as many of these will also provide food for birds.

Planting for birds

There are many trees, shrubs and plants that are especially attractive to birds, but of course the plants that you choose to grow will depend on the size of your garden/allotment, soil type, aspect and your own personal preferences. However, when selecting which plants to grow for birds, do try to choose plants that don't all produce food at the same time! (See Table 1.)

Trees

If you have a large garden you may wish to include some trees. Trees provide shelter, nest sites and perches for birds, but there are many trees that will also pro-

Table 1. Fruit and Seed Ripening Times

Name	Latin Name	Fruit Ripe
Alder	*Alnus glutinosa*	Catkins-Winter, Cones - Autumn
Ash	*Fraxinus excelsior*	October
Aubretia	*Aubretia spp.*	July-August
Beech	*Fagus sylvatica*	October
Blackthorn	*Prunus spinosa*	October
Bramble (Blackberry)	*Rubus fruticosus*	August-September
Butterfly Bush	*Buddleia spp.*	Autumn
Chickweed	*Stellaria media*	Most of Year
Cotoneaster	*Cotoneaster x watereri*	Autumn
Crab Apple	*Malus spp.*	Summer-Autumn
Dandelion	*Taraxacum officinale*	From June
Dog Rose	*Rosa canina*	September
Elder	*Sambucus nigra*	September-October
Evening Primrose	*Oenothera biennis*	Autumn
Forget-me-not	*Myosotis spp.*	July
Foxglove	*Digitalis purpurea*	Autumn
Groundsel	*Senecio vulgare*	Most of Year
Guelder Rose	*Viburnum opulus*	Autumn
Hawthorn	*Crataegus monogyna*	October-November
Hazel	*Corylus avellana*	October
Holly	*Ilex aquifolium*	October-December
Honesty	*Lunaria annua*	Autumn
Ivy	*Hedera helix*	November-December
Larch	*Larix* spp.	Spring
Lavender	*Lavandula angustifolia*	September-October
Michaelmas Daisy	*Aster novi-belgii*	November
Mistletoe	*Viscum album*	December
Oak	*Quercus robur* and *Q. petraea*	September-October
Pyracantha	*P. angustifolia, P. lalandei*	Winter
Rowan	*Sorbus aucuparia*	September-October
Scots Pine	*Pinus sylvestris*	Spring
Shepherd's Purse	*Capsella bursa-pastoris*	Summer-Autumn
Silver Birch	*Betula pendula*	September
Snapdragon	*Antirrhinum* spp.	Autumn
Spindle	*Euonymus europaeus*	Autumn
Spruce	*Picea* spp.	Spring
Sunflower	*Helianthus decapetalus*	Autumn
Teasel	*Dipsacus sylvestris*	September-October
Virburnum	*Viburnum* spp.	Autumn-Summer. A valuable source of winter berries.
Wild Cherry	*Prunus avium*	June
Wild Privet	*Ligustrum vulgare*	Autumn
Yew	*Taxus baccata*	Autumn

vide food. Oak supplies acorns and woodpigeons, nuthatches, jays and woodpeckers will eat these. Rowan's berries are popular with thrushes, fieldfares, redwings, bramblings, blackbirds and waxwings and the fruits of bird cherry (*Prunus padus*) and wild cherry (*Prunus avium*) are much loved by birds. Alder provides food for siskins, serins, redpolls, goldfinches and tits, both the cones and the catkins being eaten. Bullfinches eat the seeds of ash and beech mast is popular with bramblings, nuthatches, great tits, woodpeckers and chaffinches. Serins, goldfinches and bramblings like the seeds of silver birch and various insectivorous birds also feed on the many insects that live on this tree. Conifers such as scots pine, larch, spruce, and yew also supply food for birds and have the advantage that they do not lose their leaves in winter, thus providing all-year cover. Scots pine seeds are eaten by finches, woodpeckers and the Scottish crossbill. Blackcaps and various types of thrushes eat yew's berries and the seeds of larch and spruce are popular with finches, spruce seeds also being eaten by woodpeckers and European crossbills. Fruit trees such as apple, crab apple and plum are especially popular with birds. So why not plant some fruit trees or fruit bushes just for wildlife?

Hedging Plants

Hedges act as windbreaks and like trees provide shelter, somewhere to roost and nest sites for birds. Of particular value in a hedge are shrubs bearing berries such as elder, spindle (*Euonymus europaeus*), bramble, blackthorn, hawthorn, holly and wild privet (*Ligustrum vulgare*), which supply food for birds as well as shelter. In addition quite a few of these shrubs are spiny and offer good protection from cats and other predators. Hawthorn is popular with many nesting birds for this reason and whitethroats often nest in tangles of bramble. Waxwings and redwings will eat hawthorn's berries, whereas those of blackthorn are popular with thrushes. Holly and elder berries are loved by many types of birds, but are especially popular with blackcaps and thrushes. Hazel can also be used to make a hedge and its nuts are a valuable source of food for many mammals as well as for birds such as woodpeckers, jays, pigeons and nuthatches. Why not plant some honeysuckle (*Lonicera periclymenum*)? It will soon clamber over the hedge and thrushes, warblers and blackcaps will eat its berries. Dog rose (*Rosa canina*) and guelder rose (*Viburnum opulus)* produce hips and also do well in a hedge.

Useful Shrubs

The following shrubs should attract birds into your garden/allotment:

- **Berberis** (*Berberis stenophylla)* - Berries are mainly eaten by thrushes and blackcaps.
- **Cotoneaster** (especially *C. horizontalis, x watereri* and *C. frigida*) Waxwings, fieldfares, redwings and blackcaps will eat cotoneaster berries.
- **Pyracantha** - (*P. coccinea*, Pyracantha 'Mojave', Pyracantha 'Orange Glow'). Berries mainly eaten by blackcaps, waxwings and certain thrushes. Can be used to make a hedge.

Hedge at Hardwicke provides a good habitat for wildlife

• **Viburnum** - Waxwings like these berries. Can also be used to make a hedge.

• **Ivy** - Best grown up a fence, wall or tree. Woodpigeons, thrushes, warblers, blackcaps and robins eat ivy berries, which ripen in the winter.

• **Mistletoe** - **I**s an important garden plant, supplying berries at a time of year when food is normally in short supply.

• **Buddleia** - This shrub is tremendously popular as a nectar source for butterflies, but it will also provide seeds for bullfinches and other seed-eating birds.

Garden Plants

Many garden plants will supply seeds for seed-eating garden birds such as finches and linnets. These include evening primrose, michaelmas daisy, foxglove, aubretia, forget-me-not, sunflower, cosmos, snapdragon, wallflower, sweet william, lavender, sweet rocket, honesty, goldenrod, bird's-foot trefoil and globe thistle. And I recently left some purple sprouting broccoli to go to seed and found that the seeds attracted quite a few greenfinches!

Weeds!

As previously mentioned many plants that are generally classified as weeds are of tremendous food value for birds. Burdock, chickweed, cow parsley, clover, dandelion, groundsel, black medick, greater stitchwort, hogweed, fat hen, knapweed, shepherd's purse, plantains (e.g. ribwort and hoary plantain), stinging nettles, teasel and many types of thistles such as spear thistle and woolly thistle will all provide seeds for birds to eat. Thistle seeds are especially popular with goldfinches, linnets, siskins and serin whereas goldfinches will eat the seeds of dandelions, groundsel, knapweed and fuller's teasel. Dock, stinging nettle and meadow cranesbill seeds are popular with bullfinches.

Supplementary Feeding

Although it is far better to provide food for birds by growing plants in your garden that they can eat, this natural food supply can, if necessary, be supplemented by regularly offering various household scraps and nuts and seeds. If offering supplementary foods provide a wide variety of foods at different levels - on the ground, in feeders and on a bird table. Scraps of bread (provided it isn't stale), cooked rice and lentils, dried fruit such as raisins and sultanas, apples, oranges

and grapes, coconut halves, mashed potatoes, peanuts, vegetable suet, millet and black sunflower seeds are all suitable foods to offer to birds. It is also possible to purchase ready-made up high-energy bird food mixes by mail order from companies such as CJ Wildbird Foods.

Seed Mixtures

A quick way of planting up an area of your land for birds is to purchase a ready-made-up mixed packet of seeds of varieties of plants that are especially attractive to birds. The John Chambers' Wildflower Seeds catalogue sells a 'Wild Bird Garden Wildflower Mixture' (ref no. 21102) and a 'Wildlife Mixture for Birds' (ref no. 21272 and 21274), both of which contain seeds of seed-producing plants that are attractive to birds and they also offer a 'Meadow in a Can' (21426) which can be used to create a meadow especially for songbirds. Similarly, The Organic Gardening Catalogue offers a 'Wild Bird Mix'. (See Resources.)

GARDENING FOR BUTTERFLIES

Many British butterflies are currently in decline. Of our 59 resident species, 15 have declined by more than 50 per cent and five have become extinct according to a recent comprehensive survey carried out by Butterfly Conservation. And it appears to be species with specialist requirements that are particularly vulnerable: the generalists tend to survive. Road building, house building, changes in farming practice and the cessation of traditional woodland management techniques such as pollarding and coppicing have all helped to destroy their natural habitat. But by setting up a butterfly area in our gardens we can do much to reverse the damage and ensure that these beautiful creatures survive. And I am sure that you will find that butterfly gardening is a most rewarding occupation! For butterflies are not only attractive to look at and interesting to watch, they are also important pollinators and are therefore extremely useful creatures to have flying around your garden. Large numbers of butterflies won't just simply come into your garden, though. You will need to entice them in and once they are in your garden, you must encourage them to stay. But, this is not nearly as difficult as it may first seem, providing you can meet their requirements.

So what then do butterflies need? First of all, butterflies need a constant supply of nectar. So, when setting up your butterfly area you will need to provide as many different nectar plants as possible, some flowering in spring, some in summer and some in the autumn. Secondly, if you want butterflies to breed in your garden, or on your allotment you will need to provide a selection of caterpillar food plants as well. In addition, butterflies need warmth and shelter, so a butterfly border is best sited in a warm, sunny position and shelter is easily provided by means of a fence or hedge. It is also a good idea to provide hibernating homes for your butterflies - hedges and ivy are ideal for this purpose.

The butterfly hedge

As previously mentioned hedges act as windbreaks and provide shelter and hi-

bernation sites for butterflies. However, some hedging plants are especially useful because they also provide nectar for butterflies and/or food for their caterpillars. The catkins of sallow (pussy willow), for example, will provide early nectar for the small tortoiseshell, brimstone, comma and peacock butterflies when they come out of hibernation. And sallow is also the caterpillar food plant for the larvae of the purple emperor and the Camberwell beauty butterflies and for many moth larvae. Purging buckthorn is another good hedging plant, providing nectar for the brimstone butterfly and food for its caterpillars. Holly grows well in a hedge and is of course the caterpillar food plant for the holly blue, whereas blackthorn *(Prunus spinosa)* supplies food for the caterpillars of several species of hairstreak. However, don't forget that the eggs over-winter on blackthorn twigs, so don't cut your hedge at this time of year! Bramble has excellent all-round wildlife value, not just for butterflies. It provides nectar for many species of butterfly including the speckled wood, ringlet, hairstreak, white admiral and gatekeeper and is also a caterpillar food plant for the green hairstreak and grizzled skipper. And finally there's privet. Grow the wild variety (*Ligustrum vulgare*) and keep a look out for red admirals, hairstreaks and commas feeding on its nectar!

So as you can see, if you have enough room it is well worth including a hedge in your garden. But as well as the larger hedging plants mentioned above, you could grow many kinds of wild flowers underneath your hedge in order to at-

Stinging nettles are a great habitat for beetles

tract butterflies. For example, bugle (*Ajuga reptans*), lesser celandine (*Ranunculus ficaria*), primrose and red campion are all used by butterflies as a source of nectar. Whereas hedge mustard (*Sisymbrium officinale*), garlic mustard (*Alliaria petiolata*), hedge woundwort (*Stachys sylvatica*) and sweet and dog violet are important caterpillar food plants, mainly being used by the orange tip and various species of fritillary. Traveller's joy (*Clematis vitalba*) will also grow well in a hedge and provide nectar for butterflies. Or try including some wild honeysuckle (*Lonicera periclymenum*) which is the caterpillar food plant for the white admiral and the marsh fritillary and will also supply butterfly nectar and nectar for certain moths.

Cultivated plants of special value to butterflies

One of the best types of cultivated plant for attracting butterflies into your garden is buddleia, also known as the 'Butterfly Bush'. At least ten species of butterfly have been recorded feeding on this plant. Reaching up to seven metres in height, buddleia is a shrub that is best grown against a wall in a sunny position. *Buddleia davidii, B. globosa, B. crispa* and *B. x. weyeriana* are all attractive to butterflies and by selecting more than one species it should be possible to extend the flowering season from May to October. Although much smaller, *Verbena bonariensis* (or vervain) is nearly as good as buddleia for attracting butterflies. For a supply of autumn butterfly nectar you can't beat Michaelmas daisies. However, not all types of Michaelmas daisy are equally attractive to butterflies, so it's often a good idea to start off with a mixed packet, although the variety 'Barr's Pink' is supposed to be especially good for butterflies and should attract peacocks, commas and small tortoiseshells. Ice plant (*Sedum spectabile*) also provides late nectar, flowering from September to October. But avoid the variety 'Autumn Joy' which isn't attractive to butterflies. Many species of Hebe also make excellent butterfly plants. Try *H. albicans, H. speciosa, H. brachysiphon, Hebe x fransiscana* or 'Hebe Midsummer Beauty' which will all attract butterflies. However, by far the best varieties to use are 'Hebe Great Orme' and *Hebe xandersonii variegata*.

There are of course many other cultivated garden plants of value to butterflies. These include false goat's beard (*Astilbe* spp.), dahlias, cosmea (*Cosmos bipinnatus*), coreopsis, caryopteris, yellow alyssum (this is the 'Gold Dust' variety of *A. saxatile*), goldenrod (*Solidago canadensis*), heliotrope 'Cherry Pie' (*heliotropium peruvianum*), both African and French marigolds, lilac, shasta daisy, wild marjoram (*Origanum vulgare*), sweet william and sweet rocket (*Hesperis matronalis*). For attracting white butterflies into your garden try nasturtium, hyssop or the old English varieties of lavender. And of course you can't beat the cultivated cabbage! If you are thinking of making a rockery or a dry wall, then the 'Purple Cascade' variety of aubretia, arabis and red valerian are all good plants to use in this situation and will provide valuable nectar for butterflies.

Wildflowers of value to butterflies

Many of our native wildflowers are very attractive to butterflies and can easily be grown in a garden or on an allotment. Buttercups will provide butterfly nectar, as will dandelions, the latter being used by species such as the painted lady and brimstone. Many types of thistles are extremely popular with butterflies, especially globe thistle. Ivy is an excellent source of autumn nectar for red admirals in my garden and is also used by the painted lady and comma. In addition the brimstone butterfly often hibernates in ivy. And of course the holly blue caterpillar uses it as an alternative caterpillar food plant to holly. The stinging nettle (*Urtica dioica*) is a caterpillar food plant for many butterflies including the red admiral, peacock, comma, painted lady and small tortoiseshell. Bird's-foot trefoil is a valuable caterpillar food plant for many types of blue butterfly and caterpillars of the Duke of Burgundy fritillary eat cowslip and primrose. Vetches are used both as a source of nectar and as a caterpillar food plant by many species of butterfly, as is clover. Lady's smock (also known as cuckooflower) is ideal for growing beside a pond or in other damp areas. It provides butterfly nectar for the adult orange tip as well as food for its caterpillars. Wild thyme (*Thymus drucei*) is much loved by many butterflies, especially when it is grown in large patches. Other wildflowers that will supply nectar for butterflies include ragworts (*Senecio* spp.), ragged robin (*Lychnis flos-cuculi*), selfheal (*Prunella vulgaris*), red campion, white campion, bladder campion and hemp agrimony.

Grasses

And finally I must mention that grasses are important to many kinds of butterflies. Grasses (such as false brome, tufted hair grass, cock's foot, meadow grass, the fescues, Yorkshire fog, timothy and common bent) are important caterpillar food plants for a number of butterflies, being especially important to the caterpillars of some of the brown butterflies and to several species of skipper. Such grasses can be used to create a hayfield or meadow. Wildflower seeds such as those of yarrow, meadow buttercup, meadow crane's-bill, ragged robin, cowslip, selfheal, red clover, black knapweed, meadowsweet, or oxeye daisy can be sown in with the grass seed, the flowers being a source of butterfly nectar as well as making the meadow look more attractive. However, if you do decide to include flowers in your hayfield, it is often a good idea to purchase a ready-made up wild meadow mixture from a specialist seed catalogue because some of the grasses mentioned above are too vigorous for use in a flowery meadow. Such a 'Butterfly Meadow' mixture (ref no. 21172) can be purchased from John Chambers - see Resources for address details.

GARDENING FOR BEES AND HOVER FLIES

Hover flies

There are hundreds of different species of hover flies in Britain, most of which regularly visit gardens. In looks hover flies resemble bees and wasps, but unlike bees and wasps they do not sting. Hover flies are of great importance to the vegan-or-

ganic gardener because their larvae eat considerable numbers of aphids and are also important in pollination. It therefore makes a lot of sense to encourage hover flies into your garden and this can be done quite easily, by providing lots of the flowers that the adults like. And hopefully once the adults are in your garden, the females will lay their eggs in any aphid colonies that they find living there!

Hover flies like many types of flowers, but tend to prefer open flowers with readily accessible nectar. Two plants that I have found to be especially good for attracting hover flies into my garden are the beautiful yellow and white poached-egg-flower (*Limnanthes douglasii*) and the French marigold 'Naughty Marietta'. Both of these are annuals and are very easy to grow. They do well in tubs and other containers and also look nice when planted at the front of flowerbeds. However, if you have some spare room in your raised beds, then do plant some amongst your fruit and vegetable crops. For not only will their flowers add colour and interest to your beds, but they will also encourage bees and other pollinating insects to visit them and thus help to increase crop yield. Convolvulus, especially the annual blue convolvulus (*Convolvulus tricolor* 'Blue Ensign') is also very attractive to hover flies, as are many yellow flowers such as sunflowers, buttercups, goldenrod and tansy. Other good hover fly plants include nasturtium, fennel, evening primrose, poppy, alyssum, angelica, aubretia, bramble, bugle, nemesia, candytuft, ivy and hogweed. Also it is well worth planting the green manure crops, buckwheat and phacelia.

Bees

Many species of bees are under considerable pressure. For example, the bumblebee is in serious decline, a decline almost certainly caused by modern agricultural practices. Bumblebees need large areas of flowers throughout the summer in order to feed and nest, but many of our former meadows have been ploughed up, or are now being used to graze sheep and cattle instead. And it is this loss of meadow, along with the associated loss of meadow flowers such as red clover and bird's-foot trefoil, which is believed to be largely responsible for the decline in bumblebee numbers. One species of bumblebee may already be extinct, with a further nine species close to extinction or threatened. And it is not just the bumblebee, which is suffering from the loss of flowers and suitable natural nest sites. Of the 267 species of wild bee native to Britain, 25% are listed in the *Red Data Book* as endangered.

Yet bees are of vital importance to the vegan-organic gardener, indeed to all gardeners and food growers, because they are needed for the pollination of many crops, fruit trees and flowers. By providing flowering plants in our gardens that are attractive to bees, we can not only help to ensure that bees survive, we can also substantially increase the yield we obtain from our fruit trees and other crops.

Planting for bees

There are numerous plants that are attractive to bees. In fact many plants go to a lot of trouble to make themselves highly attractive to bees and other polli-

nators, often developing special adaptations especially for this purpose. Scent, bright colours and the production of nectar are all adaptations, which have been developed to encourage pollinating insects to visit the plant's flowers. The insects are supplied with food and in return the plant is pollinated, thus ensuring that the fruits and seeds set and allowing the plant to reproduce successfully.

The following plants are all good bee plants and some of these plants will also provide nectar for butterflies. The ones that are underlined are particularly good for attracting bumblebees.

Herbs

Easy to grow and often edible, herbs are ideal for growing in the vegan-organic garden. Many herbs make excellent bee plants. Basil, fennel, bergamot, chives, hyssop, lemon balm, thyme, catmint, apple mint, wild marjoram, rosemary, borage and lavender are all very attractive to bees.

Garden Flowers

For a supply of early nectar, try planting some aubretia, primulas or polyanthus. Bumblebees that have just come out of hibernation will visit these plants. The bright yellow, St John's wort is extremely attractive to bees and makes a good ground-cover plant, although it can be invasive and rather difficult to get rid of. Sunflowers are good fun to grow and popular with both bees and children. Many types of marigolds are attractive to bees, including the variety of French marigold called 'Naughty Marietta',

Flowers and herbs attract pollinators and predators

which will also attract bumblebees. The electric-blue flowers of green alkanet (*Pentaglossis sempervirens*) are extremely popular with bees and may even be visited by an occasional white butterfly. Often though, it is the simple 'cottage garden' plants that will be the most successful in attracting pollinating insects such as bees into your garden: hollyhocks, convolvulus, snapdragons, sweet rocket, forget-me-not, alyssum, coreopsis, delphiniums, wallflowers, foxgloves and poached-egg-flower, being ideal for this purpose. But other useful garden flowers include crocus, ceanothus spp, yarrow, globe thistle, goldenrod, heather, ice plant (S*edum spectabile*), pheasant's eye (*Adonis annua*), nemesia, and thrift.

Shrubs

Hebe and buddleia will both attract

bumblebees into your garden. Other shrubs and climbers of value to bees include hawthorn, ivy, honeysuckle, lilac, dog rose, guelder rose, gorse, pyracantha, verbena and bramble. Take care when using bramble though, as it can be rather invasive and it isn't easy to get rid of!

Wildflowers

Bird's-foot trefoil *(Lotus corniculatus)* is an especially useful plant and is of vital importance in ensuring that the bumblebee survives. Once common in the flowery meadow, bird's-foot trefoil will supply nectar for both bees and butterflies and will grow well in a mini-meadow, rockery, or even in your lawn. However, there are many other wildflowers *that are attractive to bees. These include* buttercup, dandelion, hedge woundwort, mallow, teasel, thistles, greater knapweed and vetch. Dead nettles are also excellent for bees - both red and white dead nettles and the related yellow archangel can be used.

Green manure crops

It is better to plant green manure crops rather than leaving soil bare. Green manure crops can help to prevent soil erosion and generally do a good job in keeping down the weeds. Normally green manure crops are grown for soil improvement purposes rather than as wildlife plants and they are usually cut or dug in before they flower. However, if they are left uncut and are allowed to flower, green manure crops such as phacelia, lucerne and clover can be very attractive to bees. Clover is a particularly good green manure crop to grow because it will also fix nitrogen. All types of clover can be used, but bees especially like red clover (*Trifolium pratense*) and crimson clover (*Trifolium incarnatum*). So, when growing green manure crops, don't cut or dig in the whole crop, leave a small patch standing for the bees and other wildlife. Or alternatively sow the seed in an uncultivated area where it can be left to flower. *Soft crops such as clover or alfalfa could probably be left to flower on cultivated ground without much loss of efficiency, but cut the crop before the seeds form unless you want them to self-sow.*

Seed Mixtures

The easiest way of providing a wide range of bee plants in your garden is to purchase a ready-made up mixture of suitable seeds. John Chambers offers a 'Honeybee Wildflower Mixture' (21074), a 'Bumblebee Wildflower Mixture' (21048) and packets of small (21266), medium (21268) and large (21270) bee plants, as well as a 'Mini-Meadow Mixture' (21434A). Similarly the Organic Gardening Catalogue offers a 'Bumblebee Mixture'. (See Resources for address details.)

Other things you can do to help bees

By providing a wide selection of flowering plants which are attractive to bees you will encourage bees into your garden/allotment, but that is not all that you can do. It is now possible, for example, to supply nests that will provide homes for several of our wild, native bees. And by installing these artificial nests in your garden you can help to reverse the de-

cline in bee numbers caused by the loss of their natural nesting sites. These bees normally nest in pre-existing cavities such as those found in hollow plant stems, in dead wood and in old walls. The nest kit mimics such natural nest sites. Bees that will live in these artificial nests include several mason bees and several leafcutter bees. However, the commonest user of these artificial nest boxes is *Osmia rufa,* the red mason bee.

The red mason bee

The red mason bee is an excellent pollinator of fruit crops, many garden flowers and vegetables and is therefore of immense value to the vegan-organic gardener. And because this bee does not store honey in its nests and therefore does not have huge resources to defend, it tends to be very docile, making it quite safe with children and pets. But as well as its non-aggressive nature, the red mason bee has several other advantages over the honeybee as a managed pollinator. First of all it can fly at lower temperatures than the honeybee and visits far more flowers and trees in a given time. Secondly, it grooms itself more inefficiently and so when it visits another flower the chances of pollination occurring are that much higher. Finally, its period of peak activity coincides with the flowering of all the major orchard fruits. If you attract these bees into your garden, you will soon notice improved fruit crops of apples, pears, plums, strawberries and raspberries.

Fruits in the hedge provide food source for birds

The bee-nesting cylinders and a book explaining how the red mason bee can be used as a pollinator in gardens, orchards and allotments can be obtained by mail order either from the Oxford Bee Company or from the CJ Wildbird food catalogue. The bee-nesting cylinders should be placed in a sunny, sheltered, south facing position before the early spring, when the female red mason bees will be out searching for somewhere to nest.

Wildlife Sources

Further Reading

Some of these books are available from John Chambers or the Organic Gardening Catalogue (see resources section).

1. *Attracting Birds to Your Garden* by Stephen Moss and David Cottridge. ISBN 1859740057.
2. *Garden For Birds* by Nigel Matthews. ISBN 1851168052.
3. *Garden Plants Valuable to Bees* (International Bee Research Association). This book lists 424 garden plants of value to bees. ISBN 0860981045.
4. *The Red Mason Bee* by Christopher O' Toole. ISBN 0953990605.
5. *Attract Wildlife* by Richard Jones. 48pp. ISBN 1904601030.

Resources

1. High-energy bird food is available from **CJ Wildbird Foods**, The Rea, Upton Magma, Shrewsbury, SY4 4UR. Tel: 0800 731 2820 for a catalogue, or go to www.birdfood.co.uk. All CJ Wildbird Foods products have been fully endorsed by the RSPB and are free of pesticides, but please note that some of the fat products contain beef suet and are not vegan.
2. Wild Bird Mix - A mixed packet of seeds of plants attractive to birds. Available from the **Organic Gardening Catalogue**, Riverdene Business Park, Molesey Road, Hersham, Surrey, KT12 4RG. Ring 0845 1301304 if you would like a catalogue, or go to www.organiccatalog.com. Also sell a bumblebee and butterfly mixture.
3. **Chiltern Seeds**, Bortree Stile, Ulverston, Cumbria, LA12 7PB. Tel 01229 581137; www.chilternseeds.co.uk. Offers a selection of seeds of plants attractive to bees and butterflies.
4. **John Chambers**, 15 Westleigh Road, Barton Seagrave, Kettering, Northants. NN15 5AJ. Tel 01933 652562. Sells a wide selection of seeds of plants attractive to bees, butterflies and birds.
5. Bee Nesting Cylinders - large £19.95, small - £9.95. Available from: CJ Wildbird Foods, The Rea, Upton Magma, Shrewsbury, SY4 4UR. Tel: 0800 731 2820 for a catalogue, or go to www.birdfood.co.uk. (Carriage is £3.00 on orders under £15.00.) Bee-nesting cylinders can also be purchased direct from: The Oxford Bee Company, Ark Business Centre, Gordon Rd, Loughborough, LE11 1JP. www.oxbeeco.com. Tel: 01509 261654.

The Wildlife database

We are in the process of compiling a database, containing data on plants of special value to wildlife. If you find that a particular plant, tree or shrub in your garden is especially attractive to birds, butterflies, hover flies or bees, then we would appreciate it if you could e-mail the details through to Pauline Lloyd at: paulinelloyd1@btinternet.com. Please give details of the plant's name (Latin name and variety too, if possible) and the species of animals you have seen using it, providing accurate identification of the animal if possible. A photo would be even better! State what the animal was doing on the plant, e.g. feeding on the nectar, eating its seeds or berries etc. We hope eventually to be able to offer this database for download off the Internet.

The Vegan-Organic Network

The Vegan Organic Network is a registered charity (registered charity number 1080847), providing education and research in vegan-organic principles and has an international network of supporters. VON supporters enjoy a wide variety of contacts and can obtain advice on cultivation techniques. The magazine *Growing Green International* is sent to supporters twice a year. For more information and details of how to join, please contact:

VON, 58 High Lane, Chorlton, Manchester M21 9DZ
Email: info@veganorganic.net

General enquiries and advice on growing:
Phone: 0845 223 5232
Email: advice@veganorganic.net
Website: www.veganorganic.net

Vegan-Organic information sheets

This is one of several sheets produced on various topics by the Vegan-Organic Network. These are aimed mainly at those with allotments, kitchen gardens or other small growing areas, although many of the techniques will also apply to larger-scale situations. We welcome feedback on this information sheet and any other related topics. The information sheets currently available are: #1 Propagation and Fertilisers; #2 Growing Beans for Drying; #3 Growing on Clay Soils; #4 Vegan-Organic Growing - The Basics; #5 Fungi - FAQ: #6 Gardening for Wildlife; #7 Growers' Guide to Beetles; #8 Green Manures; #9 Chipped Branch-Wood; #10 Composting.

These are available on request. Please send £5.00 per set, or 60p each (£6 and 75p respectively if outside the UK). The sheets are also available free on our website.

Issued March 2005. This advice is given as guidance only, with no responsibility for any results, due to the nature of the processes involved!