

## WATER

Butterflies also require water and the right amounts of salts and minerals. You can make a **mudpuddle** from a simple dampened circle in the ground covered in wet mud or dirt. Do not use potting soil or dirt treated with fertilisers. Add small stones, pebbles, or sticks around the mudpuddle to provide butterflies places to land and drink. You can also make a **sandpan** by placing a wide circular or elliptic pan or an inverted lid inserted into the soil and filled shallowly with sand. Also, you can use a large stone with a cavity filled with water to make a good butterfly drinking fountain.

## SUNSHINE

A butterfly garden requires plenty of sun. Butterflies only fly in warm weather or when they have gained enough energy. Butterflies require sunlight to increase their body temperatures and warm their wings each day, typically in the early morning hours. They regularly bask in the sun by perching on stones. As butterflies warm up throughout the day, they become more active and obtain the energy they need to fly and search for food and mates. Make sure the butterfly garden has plenty of open sunny places. Large stones, boulders, or walls make perfect basking sites and provide radiant heat. Dark-coloured stones are also recommended because they heat up more readily in the sun. Place stones and boulders in the sunniest locations in the garden.

## SHELTER

A butterfly garden is incomplete without shelter, where butterflies can hide when the weather becomes cold, windy, or overcast. Trees, shrubs, and vines make good shelters, protecting butterflies from cold gusty winds and providing them with places where they can congregate and roost communally. A tree windbreak could be planted at a location where wind gusts are strongest. Try to use plants that can serve as both food and shelter. These host plants also make good windbreak trees and living hedges:

- oleaster (*Elaeagnus angustifolia*)
- buckthorns (*Rhamnus spp.*)
- elders (*Sambucus spp.*)
- oaks (*Quercus spp.*)
- walnut (*Juglans regia*)
- poplars (*Populus spp.*)
- willows (*Salix spp.*)
- hawthorns (*Crataegus spp.*)
- almonds and cherries (*Prunus spp.*)
- wild roses (*Rosa spp.*)
- blackberries (*Rubus spp.*)
- serviceberries (*Sorbus spp.*)
- jujube (*Ziziphus jujuba*)
- caper (*Capparis spinosa*)



- wild grapevine (*Vitis vinifera*)
- pomegranate (*Punica granatum*)
- lote tree (*Celtis australis*)
- honeysuckles (*Lonicera spp.*)
- wild jasmine (*Jasminum fruticans*)
- wild ivy (*Hedera helix*)
- morning-glories (*Ipomoea spp.*)
- traveller's joy (*Clematis vitalba*)
- fig (*Ficus carica*)
- citrus trees (*Citrus spp.*)
- acacias (*Acacia spp.*)

## NECTAR

When you visit our butterfly garden, please swing by the summer wildflower nursery and get one of our original handmade glass nectar feeders, a great accent to your butterfly garden. Nectar feeders will provide your butterfly garden with a year-round supply of nectar, particularly between blooming times. Follow these directions on how to use our glass feeder:



- make a nectar solution with 1 part sugar and 9 parts water
- boil the solution a few minutes, stirring frequently, and then let cool
- open the lid and pour in the solution
- place the feeder on a tree branch so that the sponge faces downwards, tying the knot tightly
- make sure the tree is located in a sunny, sheltered location away from the wind
- do not use honey or other sweet substances in place of sugar

**Want to know more?** Please buy our wonderful book, *Butterfly Gardening in Lebanon*, from the gift shop the next time you visit. **Have any questions?** Please contact butterfly garden manager and director, the lepidopterist and butterfly expert Husein Ali Zorkot, mobile: +961 76 371 382, email: [huseinspnl@gmail.com](mailto:huseinspnl@gmail.com), or visit our website *LEPIDOPTERA LIBANOTICA/Butterflies and Moths of Lebanon* at <http://butterflies.spnl.org>



## Making Your Own Butterfly Garden: A Startup Guide

Husein Ali Zorkot

You can make your own fantastic butterfly garden, anywhere at home, on a balcony, patio, hedge, or next to a lawn. You can also modify the ordinary garden you have into an ecofriendly, sustainable butterfly garden. All you need are butterfly plants, water, sunshine, and shelter! As simple as that.



## BUTTERFLY PLANTS

A butterfly garden is a type of garden where particular plants are grown to attract and maintain the presence of butterflies. These plants are called **butterfly plants** and consist of **host plants** and **nectar plants**. Host plants are the “life cycle plants” on or near which the butterfly either lays its eggs or develops as a caterpillar, usually eating off the leaves until pupation time. Nectar plants are the actual “food plants” that attract the adult butterfly to the garden with nectar, its major type of food. The nectar plant *attracts* the butterfly, while the host plant *maintains* the butterfly’s presence year upon year. Nectar is a honeydew-like liquid produced in the nectaries of flowers and is the primary food for adult butterflies, the high sugar content giving them the energy to fly. Nectar plants represent a wide range of bright, colourful species of wildflowers that bloom throughout the spring, summer, and autumn months when butterflies are active. Nectar plants encourage a continuous presence of butterflies by providing a steady supply of nectar, the major energy source for adult butterflies. Do not choose cultivated plants, because these plants were bred for their appearance, not for their fragrance or the amount of nectar they contain.

Choose **native plants** because they:

- represent the country’s native flora and biodiversity heritage and thus mimic the butterfly’s environment
- are typically not invasive and do not hybridise
- contain more nectar than cultivated plants

A good selection of nectar plants along with the right host plants will be successful in promoting butterflies to your garden. Some plants are also both host plants and nectar plants. These plants make things simpler for butterflies, they reduce the time of having to fly far from the safety of their host plants in search of nectar. These are some good native plants:

- elecampanes (*Dittrichia spp.*) autumn
- knapweeds (*Centaurea spp.*) summer
- daisies (*Glebionis spp.*) spring or summer
- plumed-thistles (*Carduus spp.*) spring
- horse-thistles (*Cirsium spp.*) summer
- scabious (*Scabiosa spp.*) early summer
- eryngos (*Eryngium spp.*) late summer
- bishop’s-weeds (*Ammi spp.*) summer
- mignonettes (*Reseda spp.*) spring
- stonecrops (*Sedum spp.*) spring or summer
- cinquefoils (*Potentilla spp.*) summer
- milk-vetches (*Astragalus spp.*) summer
- medicks (*Medicago spp.*) spring and early summer



- birdsfoot-trefoils (*Lotus spp.*) spring
- brooms (*Cytisus spp.*) summer
- restharrow (*Ononis spp.*) late spring and summer
- clovers (*Trifolium spp.*) spring
- vetches (*Vicia spp.*) spring
- vetchlings (*Lathyrus spp.*) spring
- storksbills (*Erodium spp.*) early spring
- geraniums (*Geranium spp.*) spring or summer
- forget-me-nots (*Myosotis spp.*) spring and early summer
- heliotropes (*Heliotropium spp.*) summer
- marjoram (*Origanum spp.*) summer and autumn
- thymes (*Thymus spp.*) summer
- mints (*Mentha spp.*) summer and autumn
- lavenders (*Lavandula spp.*) summer and early autumn
- woundworts (*Stachys spp.*) spring or summer
- knotweeds (*Polygonum spp.*) summer and autumn
- wild garlics (*Allium spp.*) late spring or summer
- wild cabbages (*Brassica spp.*) spring



## Here is some helpful advice:

- Plant in a location with enough drainage
- Plant in the spring or autumn, in milder weather
- Do not plant in the summer heat or winter cold
- Make sure your butterfly garden has enough blooms from mid- to late summer, when butterflies are really active
- Always choose a good assortment of wildflowers, aromatic herbs, grasses, vines, and trees
- Choose a combination of nectar and host plants
- Plant plenty of colourful wildflowers, because butterflies are attracted to red, yellow, orange, pink, and purple
- Plant wildflowers with clusters of flowers, short tubular flowers, and flowers with large, flat petals because they produce a lot of nectar
- Do not plant wildflowers with double flowers, which don’t produce much nectar, or drooping flowers, which do not provide satisfactory perching places for butterflies
- Arrange plants so that they bloom rotationally; when one plant finishes flowering, the next one starts in sequential succession, keeping the butterfly garden productive year round
- Plant flowers in groups and in layers at different heights
- Group plants in clusters of odd numbers, threes, fives, sevens, etc., and according to colour, yellow with yellow, red with red, etc.
- Plant combinations of annuals, perennials, and biennials
- Select plants of different shapes and sizes; large groups of one colour are more attractive to butterflies
- Arrange plants into blocks of one species and colour 1 m by 1 m
- Plant host plants and nectar plants next to each other, because butterflies prefer to feed adjacent to where they lay their eggs
- Try to plant as many host plants as possible and spread them out throughout the garden
- Do not use any kind of herbicides, fungicides, pesticides, or broad-spectrum insecticides
- Keep the garden **organic**, encouraging a wild population of ladybugs, hoverflies, lacewings, honeybees, bumblebees, carpenter bees, moths, dragonflies, and other beneficial animals
- Do not be overly concerned with weeding, because many **weeds** are butterfly plants, and do not clean up in autumn or winter, wait until springtime; leaves, logs, and other types of debris are perfect shelters and hiding places for butterflies in cold weather

