Factsheet

Organic Perennial Propagation

The appropriate propagation technique for perennial plants can vary significantly from species to species and with the needs of different growers' operations. To assist growers in understanding the complexities of the types of propagation and how these can be applied to the organic standards, this brief guide has been produced as an introduction for new growers and a quick reference for existing growers.

The examples in the photographs were provided by Taw Valley Organics and are of ornamental species, but the techniques here apply to both ornamental and edible crop perennials.

There are many ways to propagate perennials and within this factsheet we will cover the following:

- Seed
- Transplants
- Cuttings
- Grafting
- Non-Soil Based Propagation
- Division

Throughout this factsheet references are made to the Soil Association Organic Standards for Farming and Growing (Version 1.1 dated 12 May 22 at the time of publication). Prior to propagation, please consult the latest standards at the link above and speak with your certification officer if you need any clarification.

Seed

Use of Organic Seed - When propagating from seed, attempts must be made to source certified organic seed where a suitable variety is available. Organic seed availability can checked on the national organic seeds database. Here is the link to the GB database OrganicXseeds United Kingdom (Great Britain) . There is a separate database for growers in Northern Ireland.

The production of organic seed is covered in Section 2.7.1 of the standards and this applies to both annuals and perennials.

- To produce seed from annuals, the mother plant is required to have been grown to organic standards for at least one generation.
- When producing organic seed and propagating material from perennial plants, the mother plant must be grown to organic standards for **two seasons** prior.

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Non-organic, Not Chemically Treated Seed (NCT)

In instances where organic seed cannot be sourced, permission to use non-organic, NCT seed will need to be applied for and approved by the certification officer prior to purchase.

Permission can also be applied for to use non-organic Vegetative Propagation Material (VPM) such as stem and cuttings, tubers, bulbs, corms, bulbils, rhizomes and runners. VPM is any growing part of a plant that can be used to asexually reproduce a whole plant and includes, for example, asparagus and rhubarb crowns, or unrooted strawberry runners.

Figure 1. Seedlings (Aster, Salvia, Nepeta, Veronica, Phlox, Delphinum, Aconitum, Cornus, Buddleja) Taw Valley Organics

Transplants

Transplants are defined as complete growing plants that are transferred from one place to another and replanted.

Note that permission can **NOT** be approved for the use of non-organic transplants (for example, rooted strawberry runners) but can be approved for non-organic Vegetative Propagation Material (for example, unrooted strawberry runners).

If you plant non-organic transplants on your land, then that area will have to undergo a 3-year conversion period to organic, before any crop (or propagation material) can be harvested and sold as organic.

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Methods of Vegetative Propagation

Cuttings – Cuttings are taken in the form of vegetative cuttings or root cuttings. Vegetative and root cuttings can be taken from plants that were purchased as non-organic, however the cuttings require approval prior to use and are to be grown on according to the organic standard. Once the cuttings are grown on in line with the organic standards, then these plants can then be labelled and sold as organically certified plants.

Figure 2. Root cutting (Verbascum 'Violetta'): Taw Valley Organics

Figure 3. Cutting Aster, "Monch"): Taw Valley Organics

Layering

This usually refers to placing a growing part of a plant in contact with the soil. Roots then develop where it is touching and the stem with the new roots can be detached for transplanting as a new plant. Typical examples are blackberries (tip root layering), rosemary and thyme. Strawberry stolon propagation could also be considered as layering.

In terms of organic approval, layering is treated as described earlier: an unrooted cutting is Vegetative Propagation Material, but if it is rooted into soil or a pot and then detached, it is classed as a 'whole plant'. Converted or organic plants growing in organic land can be layered in situ to produce an organic transplant.

Grafting

This requires two elements; (i) the root stock and (ii) the scion, the flowering bud or shoot that is joined onto the stock.

- Root stock: If organic root stock is not available then permission to use non-organic root stock is required as this falls into the category of Vegetative Propagation Material.
- Scion: This cutting is required to be from an organically certified plant as this is also VPM. Similarly, if the scions are not of organic origin then you can apply to your certification officer for permission to use non-organic scions.

Whole Plant Propagation

Division

Division refers to when plants are physically split: part of the original plant is re-potted and then sold or relocated, while the remainder is replaced back into the stock garden.

Grasses and some herbaceous and edible perennials require divisions for successful propagation. This is because some varieties are bred to be sterile and therefore will not bear seeds. Others may have been propagated originally from gathered seed and so it would not be possible to grow them 'true to type' through subsequent seed propagation. Or it may be simply advantageous and faster to use division to propagate a plant that is difficult to start from seed.

Divisions of this sort are 'whole plants' rather than VPM. For a plant of non-organic origin to be divided and produce organic plants, the stock plant would have to convert in the ground for 3 years from planting, and not in pots, before organic divisions can be taken.

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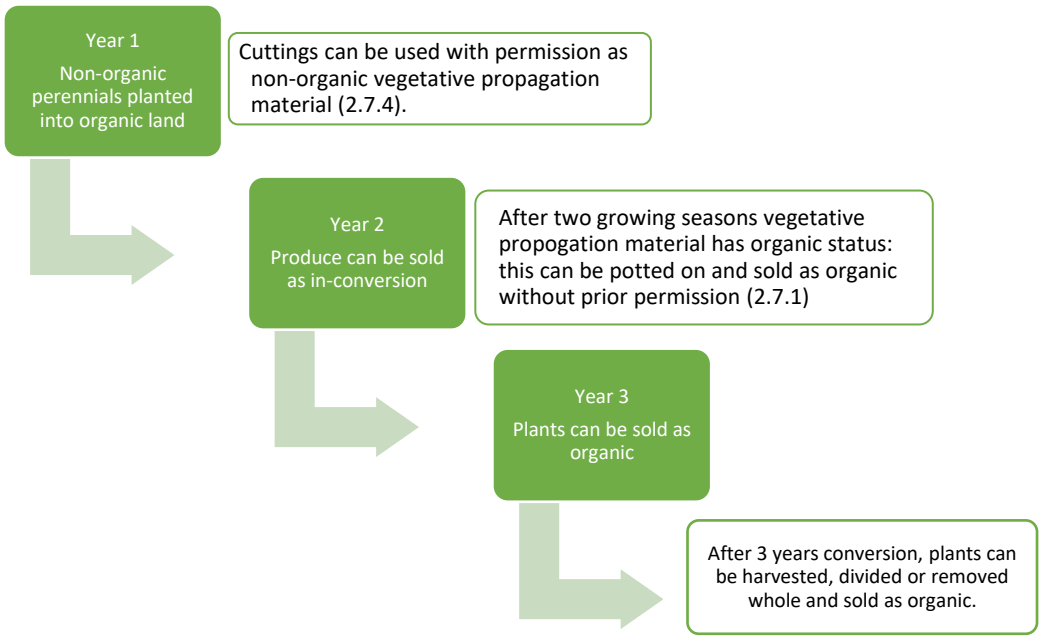
Figure 4. Timeline for Derogations and Non–Organic Perennial Plants



Non-Soil Based Production

Many nurseries will purchase non-organic stock plants that remain in pots and are simply used for taking cuttings. These potted stock plants will always remain non-organic and the cuttings from these plants will always require prior permission. Record keeping of purchases is paramount when it comes to inspection and certification.

Micropropagation

This uses plant tissue culture in a laboratory environment to rapidly multiply stock plant material and produce a large number of progeny plants. It is usually used for plants that do not readily grow from other vegetative means, or that do not produce seed. It is also useful where viral infection is a concern, or where there are very limited stocks of the mother plant. Micropropagation produces whole plants for transplant and so it is not possible to get permission to use non-organic micropropagated plants. In principle, it may be feasible for this technique to use approved propagation media and so obtain certification. However, at the time of writing, we are not aware of any UK micropropagation facilities that have organic certification. Please consult your Certification Officer first for advice if you are considering using micro-propagated plants.

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Due to the complexities and diversity within perennial propagation, labelling of plants can vary and can sometimes be confusing.

Transplants intended for organic crop production may be labelled as 'suitable for organic production' but may not be described as 'organic'. They must be grown in a substrate consisting of ingredients in section 2.5.2 of the standards.

Plants (both edible and ornamental) that are not transplants for organic crop production and are intended for sale as organic to the final consumer in the pots, should be grown to the additional requirements in point 3 of standard 2.7.10 :

- the substrate is made of at least 51% (by fresh weight of the end product) of materials from organic farming origin
- no more than 49% of the substrate is made up of non-organic manure and compost which meets standard 2.5.2
- the substrate provides more than 50% of their nutrient needs, until the point of sale
- you make sure the substrate is biologically active
- you meet all other relevant standards
- the entire plant and the pot are sold together
- you do not use peat or slaughterhouse wastes
- you do not use soil from organic farms.