

# fertiss

## Ready to use propagation plugs

### Introducing Fertiss

FERTISS are ready to use plugs dedicated to the propagation of young plants raised from cuttings, seed or for weaning micropropagated material.

The FERTISS mix is wrapped in a non-woven mesh that is quickly and easily penetrated by roots; as soon as roots appear plants can be handled, graded and potted.

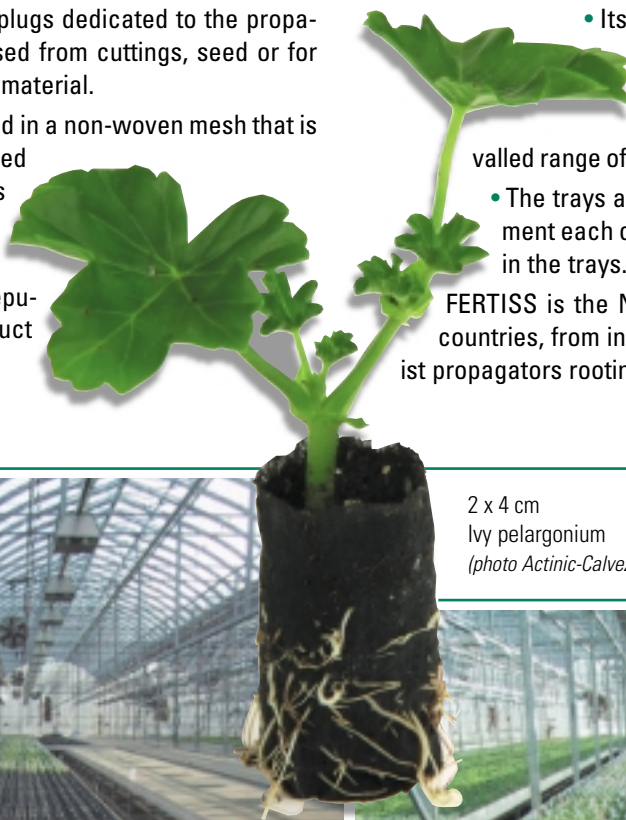
FERTISS has earned its reputation as a top quality product because:

- Its performance is excellent, optimising rooting speed and percentage take.

- FERTISS is available in an unrivalled range of plug sizes and tray configurations.

- The trays and plugs are designed to complement each other, with excellent air circulation in the trays.

FERTISS is the No. 1 choice of growers in many countries, from individual growers to large specialist propagators rooting millions of plugs each season...



2 x 4 cm  
Ivy pelargonium  
(photo Actinic-Calvez)



## From own fill trays...

When growers are filling their own propagation trays they need to consider which tray to use, which substrate works in the tray and how to fill the trays accurately, uniformly and consistently. All of this takes time and skilled staff.

Cultivation has to be long enough to allow a full root ball to hold the plug together (some plants never achieve this). This can slow the propagation cycle and upset production programs.

Grading is difficult in own-fill trays but is necessary as some crops root unevenly and development varies widely within and between trays, particularly important for machine transplanting. Finally, potting-on is a critical operation, extracting plugs from the trays can be slow and often damages young roots, this will result in plants growing away unevenly with a potential for considerable losses.

In these days of low margins and tight production schedules any of these problems can upset systems and affect profitability.

3 x 3 cm  
Lavender  
*(photo  
Actinic-Calvez)*



3 x 3 cm  
Polemonium  
*(photo  
Actinic-Calvez)*



## ... to the Fertiss solution

FERTISS has the answer to all of these potential problems and can simplify propagation.

### A READY TO USE AND FRESH PLUG

FERTISS plugs are manufactured to order for optimum freshness on the nursery; they can be used without initial watering, although for very soft material it is best to lightly moisten the surface first. (See also "composition" and "user guide").

### CUTTINGS ARE EASY TO STICK

FERTISS has a consistency which makes sticking easy and gives good support for the cutting in the plug. There is usually no need for a pre-made dibble hole which can create an air gap at the base of the cutting which may slow callus formation and delay rooting.

### ACCELERATED PRODUCTION

The ideal balance between air filled porosity, water retention and close contact between the compost and the cutting ensure rapid rooting. The young plants are easily transplanted as soon as roots appear through the webbing. The speed of rooting allows more batches to be propagated in the same area reducing unit costs considerably, making optimum use of heated beds, skilled staff, water etc.

### UNRIVALLED ROOTING PERCENTAGES

For most subjects rooting can be close to 100% and very even across each batch.

### THE ADVANTAGES OF AIR PRUNING

The tray design allows air to move easily around the plugs; once roots have penetrated the webbing into the air gap their growth stops, secondary roots and root initials develop in the plug. This "Air Pruning" process reduces root spiralling in the plugs and speeds establishment after potting.

### EASY GRADING OF PLANTS FOR SHIPMENT OR TRANSPLANTING

The tray's design makes sorting and grading of rooted plugs very easy. FERTISS plugs are all available in trays which are compatible with Danish trolleys, American and Euro standard systems. The plugs are ideal for mail order sales.

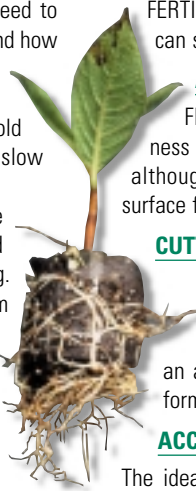
### QUICK AND EASY POTTING

The shape and consistency of FERTISS plugs help make potting easy. Some FERTISS plug trays have been designed specifically for use in mechanical transplanting systems.

The dense rooting system encouraged in FERTISS, especially through the sides of the plugs, gives greater stability to the cutting and developing young plant.

Compared to non-organic rooting media, the natural composition of FERTISS (made without glue or synthetic additives) will help avoid transplanting shock and speed adaptation to a new environment.

3 x 3 cm  
Bidens  
*(photo  
Actinic-Calvez)*





## Suggested uses of Fertiss

Since its launch during the mid 1980's, the range of uses for FERTISS has dramatically increased, at the same time the choice of tray and plug size has expanded to meet customer requirements and market demands in many countries.

Originally FERTISS was made for Pelargonium propagators. Nowadays FERTISS is used for many diverse crops including tender perennials, hardy nursery stock, herbaceous perennials, and is well suited to weaning micropropagated plants, hops, pharmaceutical crops and many more...

### Tender perennials and bedding



#### FERTISS 452.00

4 x 4 cm  
25 per tray  
Zonal Pelargonium  
South west France  
*(photo Actinic-Calvez)*

#### FERTISS 442.10

3 x 3 cm  
25 per tray  
Petunias  
Baden Wurtemberg



#### FERTISS 452.00

4 x 4 cm  
25 per tray  
Lilacs young plants  
(from microprop.)  
France 49  
*(photo Actinic-Calvez)*

#### FERTISS 443.10

3 x 3 cm  
100 per tray  
Dianthus ready for dispatch  
Devon UK



### Hardy ornamental nursery stock



#### FERTISS 481.10

4 x 6 cm  
54 per tray  
Micropropagated roses  
Austria – Inn valley

#### FERTISS 453.00

4 x 4 cm  
35 per tray  
Hosta from microprop  
Cambridgeshire UK



#### FERTISS 443.10

3 x 3 cm  
100 per tray  
Dianthus  
Devon UK

#### FERTISS 451.00

4 x 4 cm  
100 per tray  
Shrubs and perennials  
ready for dispatch  
Cambridgeshire UK



## Plug composition

### THE MIX

• FERTISS is made of: Fine blond sphagnum peat, Perlite and Vermiculite, a natural compost which adapts well when potting-on. It is a clean, natural, "live" product where the natural structure of the medium has not been damaged or sterilised. It retains its natural healthy balance of soil organisms, making the compost less vulnerable to colonisation by harmful pathogens.

- The pH is balanced at 6.
- The plugs have a low conductivity and contain no fertiliser in the standard product.

Fertil recommend liquid feeding as callus has formed (or earlier for "hungry" crops).

It is possible to adapt the basic mix by adding Fertiliser, adjusting the pH etc... but it is always worth trying the standard mix to see just how adaptable it is.

### THE WEB

- is very fine
- is easily penetrated by roots
- is biodegradable and breaks down readily and quickly.

## Quality control

In order to offer a consistent product, quality checks are performed at each step of production. They begin with the receipt of raw materials and run right through to systematic growing trials.

Several parameters are checked in the production workshop during manufacture, these are double checked in the laboratory. pH, conductivity and density are measured twice for each cubic meter of compost produced. Each consignment is identified by a unique batch number for easy tracking.

## Users guide

A comprehensive user guide is attached to each delivery (a yellow pamphlet). It is important to read this as it recommends storage conditions and suggests water management strategies, the key to success. During trials in the propagation house it is important to adapt the propagation regime to suit the FERTISS system for best results, easy with experience!



3 x 3 cm  
100 per tray  
*(photo Actinic-Calvez)*



2 x 4 cm  
240 per tray  
*(photo Actinic-Calvez)*



4 x 4 cm  
25 per tray  
*(photo Actinic-Calvez)*

## Choosing the right trays

### THE SEVERAL CONFIGURATIONS

The FERTISS plugs are available in many sizes and tray formats.

- FERTISS plugs can be supplied without trays in bulk boxes.
- Available ready to use in trays, each tray is designed for the plugs with a good range of plant density and tray layouts.

### THE "MODULO" FERTISS TRAY

The modulo FERTISS tray is a strip configuration, with just two lines of plugs. This brings the advantage of being able to space plants more widely as they grow but still pack densely for transport.

### HOW TO CHOOSE

Select the plug volume needed by the crop, taking into account the size of the cutting and how long it will be kept in the plug (see table).

- Select the plant density per area you need to achieve.
- Do you require square set or staggered rows in the trays?

If we do not have the right tray for your needs we can develop new formats (especially for large volume users).

Now select the appropriate product code.

Fertil always recommend making a substantial trial to confirm and fine tune FERTISS to your exact cultural requirements.

### MOST COMMON PLUGS

Plug	2 x 4	3 x 3	3 x 4	3 x 5	3.2 x 3.5	4 x 4	4 x 6	4 x 8
Volume cm <sup>3</sup>	13	18	23	29	28	40	60	80
Length in mm	40	30	40	50	35	40	60	80
Diameter in mm	20	27	27	27	32	36	36	36

## Packaging

Available in boxes or on pallets, ready to use in trays or without trays, loose in boxes.

Do not hesitate to give FERTISS a trial and join the world wide family of happy FERTISS users!

**fertil**