

TECH TYFU: GWYNEDD AND YNYS MÔN VERTICAL FARMING CLUSTER

INFORMATION PACK



Menter Mon have bought 5 micro vertical farming units to pilot production of fresh produce in Gwynedd and Ynys Môn, such as speciality leaves, oriental vegetables and microgreens. Businesses or individuals based in Gwynedd or Ynys Môn can apply to trial the equipment. The units include two nutrient film technique (NFT) systems suited to grow crops such speciality leaves, and three flood and drain systems ideal for growing microgreens.

In 2020, up to 4 individuals or businesses are sought to become “Pioneer Growers” for the cluster. Each of the growers entering the programmes of support will be offered a pilot micro growing system from the project, free of charge for up to one calendar year. The grower will be responsible for purchasing all consumables including seed, nutrients and growing media, and for maintaining the hardware such as the water pumps and meters.

Menter Mon will work with the growers to facilitate the building of new supply chains for fresh produce with locally based partners e.g. distributors, retail outlets and restaurants. Other opportunities for sales will be evaluated. The development of supply chains will be led by the growers, and it is expected that some will continue to develop their own crop producing business after the trial period. Initial guidelines and assistance will be given to all growers, along with regular meetings and visits to other commercial UK growers to learn from experienced businesses. At the end of the growing season, growers who wish to continue to produce crops will be signposted to further support for scaling up production with their own vertical farming units.

Vertical farming unit details

VF 5207



Key facts

1530 x 880 x 2400mm (L x W x H)

3.5m² growing area per rack. 5 NFT gullies per layer, 132 plant sites (at standard planting hole ratio 20cm between centres).

Production example: 1716 plants per year @ 150gm - 257 kilos. Based on V-Farm Head lettuce 28 days, 12 crops / year.

Power Usage: 16 LED lights @ 20w - 320w power consumption 161KWH/28day cycle.

Features

Adjustable height lights. On wheels and easy to move around.

Supplied with integral tank, pump and light/pump controllers.

Light timer to alter day length.

Suitable for whole head crops e.g. Lettuce, spinach, pak choi & leafy herbs.

VF 5222



Key facts

1260 x 860 x 2400 (L x W x H)

4.6m² growing area per rack. Five trays on five layers measuring 1200x800mm.

Production example: 4.8m² of baby leaf or microgreens per crop.

Power Usage: 20 LED lights @ 20w - 500w power consumption 161KWH/28day cycle.

Features

On wheels and easy to move around.

Supplied with integral tank, pump and light/pump controllers.

Suitable for microgreens, baby leaf, medicinal or smaller crops on mats or plugs.

WHAT ELSE CAN YOU GROW IN A V-FARM?



Pioneer Growers - Selection criteria

We expect to be over-subscribed by applications to become a Pioneer Grower. To help you better understand how the selection process will work, we have listed below what we'd like to see growers offering in return for being offered a kit.

Successful individuals/businesses will need to:

- Demonstrate interest, commitment and willingness to engage in the pilot
- Show interest in growing hydroponically and engaging with the technology.
- Demonstrate basic understanding and give examples of opportunities to develop local supply chains to market and sell fresh produce.
- Have previously considered using hydroponics to grow crops commercially or have an interest in the potential of hydroponics.
- Have a suitable secure building or space available to house a growing unit.
- Have relevant insurance.
- Have registered or be willing to register with Farming Connect (where possible) See <https://businesswales.gov.wales/farmingconnect/>
- Be ready to register and complete a BioInnovation Wales training module on vertical farming. Training is delivered in a responsive and flexible format, through supported distance learning. See <https://bioinnovationwales.org.uk/>
- Agree to cover running costs and implement the growing schedule agreed with project staff.
- Participate in a positive and constructive manner in a Growers' Forum which will include activities such as study visits to other commercial hydroponic growing sites in the UK, workshops with specialists, hacks at each other's growing site, action learning sets and update sessions where growers can share experience and data from their growing unit.
- Show willingness to share growing experiences on social media on platforms such as Facebook, Twitter and Instagram.
- Be ready to review and evaluate their growing experience.
- Show willingness to collaborate with other producers in order to benefit farming and food production.

To apply to become a Pioneer Grower, please complete and return the project's short application form to luke@mentermon.com by March 9th, 2020. Selection of the first-year growers will be made in time to start growing sometime in March/April 2020. Applicants who are not offered a growing unit in 2020 may re-apply in year 2 and/or year 3 of the pilot.



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