

## Tyfu Cymru: Technical Advice Sheet

### Veg Network Webinar – 22<sup>nd</sup> April



#### General Comments

**Manure Applications** – Manures can be an excellent way of enhancing soil structure and providing nutrients for the crop, particularly in organics. Horse manure is not as rich as chicken litter, but has a good nitrogen content. Before using manures it is best to compost it in covered heaps which are turned often when temperatures reach 60°C. Covering the heap will prevent nutrients from being leached by rainfall, and effective composting will kill off any weed seeds to prevent spreading them on your land. It might be worth checking for any herbicide carry over – sow a few pea or beans in a tray and look for germination before applying to your land.

**Irrigation** – The continuing dry weather means irrigation may be needed, especially on recent transplants. Leaky hose and trickle irrigation are the most effective at slowly irrigating the soil, but be careful about timing applications – the upper soil profile may be dry, but cold and wet lower down. Early irrigation will support transplants while they develop a root structure and can draw up water from deeper in the soil as it gets dryer later in the season.

**Weed Control** – Weed control should be a priority, especially before planting or during crop establishment. Grassy/weedy patches should also be controlled as they can provide a reservoir for leather jackets – if you're seeing damage on your crops this is like from adults from last year. Couch grass can be a particular problem, but its best to cut and lift this often to limit establishment. Ideally old school spring tined machines are used as these drag up the rhizomes. Do this at the start of a dry spell. Ince worked let the surface rhizomes dry up. When or if the couch comes again repeat. It's best to plant short-cycle crops like salads in areas near couch grass beds as control will be easier than year-long or perennial crops.

**Planning Rotations** – Rotation planning can help you maximise the returns on your land. It's best to plan hungrier crops earlier in the rotation – potato and sweetcorn – after you have manured. You can plan by family group to reduce disease risk, but it may be best to plan according to harvest time. Try to plant crops that are harvested at similar times to the same areas of land to make crop work and harvesting more efficient. Also consider planting density and make sure you plan for suitable seed or transplant rates so as to maximise the amount you can harvest.

**Meshes** – When planting out, consider planting under a fine mesh where possible, such as WonderMesh, Agromesh and Enviromesh. These can be particularly useful to prevent pest damage (e.g. flea beetle, carrot fly) as well as birds, rabbit and deer. The mesh will also create a microclimate, warming plantings and speeding up germination and early growth. It is best practice to lay the mesh out alongside the crop before planting, and then pull over as you plant. The mesh can either be dug in with soil or anchored down with sandbags. Mesh should be left in place until harvest to avoid pest damage. The crop should be able to support the mesh, and while you might lose a plant or two when taking it over it will be negligible compared with the pest damage that can be avoided.



Flea beetle on Brassica crops

### Celeriac

Celeriac can be a good crop to grow for cold storage – you can plan to harvest when the root is roughly rugby ball-sized in October/November, then cold store in high humidity for sale into the following spring if required. Celeriac needs a long season to reach good size, it's recommended that you buy in F1 hybrid plants from a propagator to give your crop a good head start. Celeriac and celery are both at risk of *Septoria* which causes chlorotic patches on the leaves which turn necrotic. The appearance of leaf spots can be an early warning, it is best to apply a fungicide treatment (e.g. Amistar - EAMU 2198/19) when these first appear. For organic growers an application of bicarb may prove effective, and a foliar feed may enhance resistance to the disease.

*Septoria* symptoms on leaves of celery.



### Alliums

White rot in onion caused by *Sclerotium* can develop in late spring and early summer, especially in autumn-planted bulb onions. White rot can be difficult to control, even with conventional fungicides. Good crop hygiene is essential – be careful to remove infected debris to prevent contamination of healthy crops. Sclerotia produced by the fungus can persist in the soil for many years, although it has been reported that spreading onion waste over weakly-infected soils can trigger the sclerotia to germinate and die without a crop to infect.



### Carrots

When planting carrots and parsnips, Emerger (Bayer) can be used as a pre- and post-emergence herbicide – this can also be used in crops of carrot, celeriac, parsnip, leek and salad onion under EAMUs 1100/2020, 1101/2020 and 1102/2020. It's recommended that you avoid planting celery/celeriac close to carrots – these are attractive to carrot fly and can act as a reservoir for this pest, increase risk of damage to your carrot crops – and you should aim to separate new crops from those that have been overwintered if you are aiming for year-round supply. For conventional control, Hallmark (lambda-cyhalothrin) can be effective.

Forking in carrots and parsnips are caused by a range of free-living nematodes stubby root nematodes (*Trichodorus/Paratrichodorus*) of needle nematodes (*Longidorus*). Nematicides can be of limited use Vydate granules are used in non-organic systems and garlic oil can be an option for organics when applied planting, you'll need to place it near the seeds.



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### Asparagus

Asparagus is an attractive crop for Welsh growers, including for organic systems. It's low yielding (around 2 tonnes per acre) but achieves a high market price (£12/kg) which will sell well in farm shops or to add to veg boxes, and is a good crop to fill the gap between winter crops finishing and spring crops starting. . Asparagus crowns can be planted in the spring, at a depth of 15cm in furrows, at around 25k/ha (although some varieties

can be planted at a higher density). Weed management is important, especially in establishing crops – see the Tyfu Cymru factsheet on asparagus for recommendations. Asparagus does not suffer from any significant pest or disease damage. Slugs can be a problem, with underground activity leading to spears emerging bent. Slugs can be controlled with ferric phosphate, or with a nematode application (Nemaslug) applied at a rate of 1000L/ha on wet nights. Frosts can also lead to bent spears, and the best harvests are seen once the weather warms moving into May.

### **Brassicas**

You should be sowing now for winter crops of Brassicas. Irrigation can be important during transplant establishment, especially on lighter soils, and you should check with wind damage at this stage. Careful attention must be paid to weed control, and while early disease symptoms (e.g. ring spot, dark and light leaf spot) will remain drier weather will slow further infection and development. You should also monitor closely for any slug damage after rain. Some tenderstem-like varieties can be planted all year (e.g. Montebello) that give good yields and can be sold at a high value.

### **Rhubarb**

Rhubarb is another hardy crop that will give good yields for 5+ years after planting. Timperly Early can be harvested from March to October, and will respond well to feeding and topping off of early foliage. Early season nitrogen feed is particularly important for a good harvest this season. Early season weed control in rhubarb is essential – consider applications of Dow Shield 400 (EAMU 2582/19) and Flexidor (2598/19) which is particularly effective against a range of broadleaf weeds. Rhubarb may flower but the triggers are unclear – it is best to remove these as soon as you see them in your beds.

### **Pumpkins & Squash**

You should consider ordering pumpkin and squash plants from propagators now for later planting. You will also need to consider creating a stale seed bed to remove any weed pressures – see the Tyfu Cymru factsheet on pumpkin herbicides for advice on weed control. Careful selection of varieties can be important in maximising your yields. Squash will store well if kept dry (and without chilling) through the winter into the spring, giving a long marketing window. You may also wish to think about a range of squash types to appear to your customers. Suppliers such as CN Seeds offer a range of F1 hybrids. The squash Amoro, kabocha class is good and produces many squashes a plant on some sites. Crown Prince is a tough skinned blue type that keeps well. Don't store Pumpkins family at low temperatures, they don't like it and it's best to avoid washing when lifting from the field to avoid rots.

### **IPDM in Lettuce**

IPDM programs should be started in early spring – you may wish to consider an aphid parasitoid mix, and reapply this every two weeks and can offer a good level of control once established. Needs to be in protected crops to maximise success.

### **Disclaimer**

Every effort is made to ensure the accuracy of information and recommendations given in these notes. All applications of crop protection chemicals should be made in accordance with label recommendations, which should be consulted before spraying. Some of the pesticides mentioned in these notes may not be supported by label recommendations for their use on pumpkin crops but are permissible via Extension of Authorisation for Minor Use (EAMU) in the UK under 'The Revised Long Term Arrangements For Extension Of Use (2002)'. In these cases, the use of the pesticide is at the risk of the user and Tyfu Cymru does not accept liability for any loss or damage caused by such use. The references to on-label approvals and EAMUs for use of pesticides in pumpkin crops and are correct at the time of writing. These are subject to change and approval may be withdrawn at any point. It is the grower's responsibility to check approvals before use of pesticides. If in doubt a grower should seek advice from a BASIS qualified advisor - this is available free of charge for eligible growers through the Tyfu Cymru program, please contact us to arrange an appointment – email/telephone advice is also available.