Support Scheme For Renewable Heat

Phase 2 of the Support Scheme for Renewable Heat was officially open for applications on June 4th. The long awaited scheme was announced by Minister for Communications, Climate Action and Environment Richard Bruton. Phase 2 of the scheme will provide operational support for biomass boilers and anaerobic digestion heating systems. This scheme is of huge interest to the mushroom sector as there are large heating requirements on mushroom farms. Unfortunately, this scheme will not apply for all mushroom enterprises as the scheme only applies to businesses converting from oil/gas to biomass. Many farms are already heating with biomass and will not qualify for the scheme which is very unfortunate as there is no grandfathering. Growers who are expanding or growers who are using oil in combination with biomass will be considered for the scheme as there is the opportunity to displace the use of oil.

The objective of the scheme is to replace fossil fuel heating systems with renewable heating technologies to contribute to meeting Ireland’s 2020 renewable energy targets whilst also reducing greenhouse gas emissions. Phase 1 of the scheme was launched in September 2018 which was an installation grant for heat pumps of 30%. Phase 2 of the scheme that is of
particular interest as it encourages farms/growers to install renewable heat technologies with tariff payments made based on heat output. See the table below which is used to calculate the tariff payment for each business which is accepted into the scheme:

<table>
<thead>
<tr>
<th>Tier</th>
<th>Lower Limit (kWhr/yr)</th>
<th>Upper Limit (kWhr/yr)</th>
<th>Tariff (c/kWhr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>300,000</td>
<td>5.66</td>
</tr>
<tr>
<td>2</td>
<td>300,000</td>
<td>1,000,000</td>
<td>3.02</td>
</tr>
<tr>
<td>3 &amp; 4</td>
<td>1,000,000</td>
<td>10,000,000</td>
<td>0.50</td>
</tr>
<tr>
<td>5</td>
<td>10,000,000</td>
<td>50,000,000</td>
<td>0.37</td>
</tr>
<tr>
<td>6</td>
<td>50,000,000</td>
<td>N/A</td>
<td>0.00</td>
</tr>
</tbody>
</table>

For many mushroom growers, applying for the scheme and converting to renewable technologies is an easy decision given the significant saving to be made on both fuel and the SSRH operational payment. For example, a typical mushroom unit using 90,000 litres of Kerosene per annum has the potential to save €16,512 each year on fuel costs by switching to biomass wood pellets. The farm would also be entitled to an SSRH operational payment of €32,556 per annum based on heat output for the farm of 815,760 Kwh. In total the farm would save €49,068 per annum by switch from an oil boiler to biomass heating boiler as can be seen below:
Investing in a biomass boiler would result in a relatively short return on investment which makes the scheme a no brainer for many mushroom growers. In terms of carbon footprint, businesses will significantly reduce CO₂ emissions. For the mushroom unit displacing 90,000 litres of kerosene per year, this reduces CO₂ emissions produced by 210 tonnes. Actions like this will substantiate your farms sustainable credentials.

Carbon tax is expected to rise in this year’s budget as Ireland aim to reduce greenhouse gas emissions by 20%. The Climate Change Advisory Council, has strongly recommended Ireland incrementally increase the carbon tax to €80 per tonne by 2030 to make a meaningful reduction in rising carbon emissions. An increase in carbon tax which currently is €20 per tonne of carbon will lead to a further increase the price of fossil fuels. For the example above using 90,000 litres of kerosene per year, they are currently paying €4,200 per annum in carbon tax and if carbon tax does eventually rise to €80 per tonne this will result in the farm paying €16,800 per annum. All these factors make the SSRH scheme more attractive and sensible from a commercial point of view.

For those interested in applying for the scheme, you can start the application process by submitting an online application form at the following link on the SEAI website. I have
compiled a factsheet in relation to heat energy requirement on mushroom farms in Ireland. This factsheet provides an industry heat energy benchmark for a typical mushroom farm. Each applicant to the scheme must provide evidence of efficiency of the heat use proposed through submission of the industry Benchmark. This document is required by SEAI as part of the Technical Submission form. You can find this document on the Teagasc mushroom webpage at the following link.

---

**Sporgon Label Change**

Sporgon 50 WP Republic of Ireland label has changed to come in line with the UK label. The old label (pcs number 91288) has been revoked from 31st of March 2019. This product can be sold until 30th September 2019 and can be used by growers up to 30th September 2020. The new label has the following changes which are important to note:

- maximum dose changed from 1.2g/m² to 1g/m²
- harvest interval is changed from 4 days to 10 days
- number of applications has decreased to 1 application per crop
- Mycogone (wet bubble) not supported on the label with the new rate.
As can be seen on the photo above the **new PCS number is 05094**. I recommend growers adhere the new label instructions for use to avoid any issues in upcoming audits.

---

**Fly Control**

Fly populations are high currently and will remain so throughout the summer. Growers need to be attentive and monitor fly activity on farms. Please note the following action points:
- After the house/tunnel is filled, close the door immediately. I recommend to fog with Pyrethrum 5EC after closing the doors. Recommended rate is 0.05-0.10ml/m² along with 2-4 litres of water per 1000m³.

- Seal doors and tunnels, change filters and check fly mesh as they may need maintenance. Growers with poorly sealed tunnels can also use fly sticky paper around perimeter of the doors or spray glue to trap flies walking into the tunnel. **This is the first physical barrier in fly control.**

![Poorly sealed tunnel](image)

- Keep tunnel doors closed during cropping and harvesting. Highlight the importance of keeping doors closed on the farm to all employees. Restrict access of farm staff to case run/pinning tunnels.

- Monitor fly levels using traps, and note timing of emergence, as a guide for correct intervention, particularly if using nematodes for sciarid fly control.

- Vegetation around mushroom units is attractive to flies and provides shelter
where fly populations can establish and breed.

- Mushroom waste left outside tunnels will attract flies; bins/skips should be emptied regularly throughout the day and all waste removed from the site. Drains should be also kept clean and free from compost debris where flies can establish and breed. In general, good hygiene will assist in fly control by keeping all waste/debris removed.

- Sciarid fly control should be possible with the correct application of nematodes. **Nematodes must be in date, mixed in cold water, kept in suspension during application, and never allowed to freeze in storage.** When fly populations are high, increase the rate of nematodes per square meter from 2 million to 3 million. Apply in 2 split applications at this rate – 2 million/m² at case run (day 4 or 5) and 1 million/m² after 1st flush.

- Apply Ficam W in an empty tunnel before filling around lights, walls, vents and doors.

- Phorid flies will be more active this time of year in warmer temperatures and they must be excluded from tunnels by physical barriers as mentioned above – door seals, filters, fly mesh. They will also be attracted to waste around units so it is really important to maintain good hygiene on and around the site to reduce the problem.

- The critical period for control is the first 2-3 weeks of a crop. If you delay the cycle, you delay second generation emergence which you probably see now as an explosion of flies late in second flush early third.

- Cookout crops before emptying to kill off flies.
Flies spreading Mycogone disease

Labour Update

Summer is a very difficult time on mushroom farms as the harvesters go on holidays which put added pressure on growers to ensure they have enough people available to harvest crops. The majority of growers reduce compost fills during the summer which helps controlling crops and reduces farm output which also reduces labour requirements for harvesting. However taking this into account, retaining farm staff and the scarcity of labour when recruiting is still an ongoing problem on farms as growers start planning to increase production by September.

Given the problems with obtaining labour, it’s surprising that the pilot work permit scheme for the horticulture sector is still under subscribed.
One of the key issues with the scheme is the two tier pay system that will occur on farms as workers obtained through the scheme must earn a minimum of €22,000 based on a 39 hour week. Another problem is the extensive application process which has resulted in long period of time in getting people to Ireland. These challenges are made easier when growers recruit through a recruitment agency’s as they have preferred status with DEBI and know how to streamline/speed up the process.

For those growers who have secured permits for non-EU workers, the feedback has been positive as the workers are progressing well and reaching the target pick rates in a short period of time. I would encourage growers to continue utilizing the scheme with the aim of getting the scheme introduced permanently. Also if growers are seeking further information regarding the scheme click on this Link.
**Weed seeds not viable in Spent Mushroom Substrate**

Blackgrass is an autumn germinating grass weed that has huge capacity to generate seed and do widespread damage to tillage crops. It is the most destructive weed in the UK at the moment on arable farms. Currently farmers in the UK are spending approximately £150 per ha to control it with herbicides. If it goes to seed the only control is glyphosate. It can be spread in machinery, red label seed, straw and manures. There is a growing concern in the industry that straw being imported from the UK could potentially spread the problem mainly from debris falling off the trailers.

For arable farms and contractors it is important to differentiate between ingredients for mushroom compost and SMS. As composters needed to import straw this year, it would seem that there is potential to spread the weed into Ireland. Some arable farm are relating this issue to spent mushroom substrate, however this assumption should not be made. Straw used in the composting process which may contain Blackgrass seed will not survive the process due to the high temperatures achieved. Temperatures at phase I reach 80°C for an extended period with a number of turns during the phase. This alone will kill the Blackgrass seed. On top of this, temperatures at phase II and III will also ensure the seed will not survive. Finally if there was any doubt, growers who steam crops to 60°C will also kill the seed. It’s important that if growers are ever questioned by arable farms removing SMS, that they make it clear that there is no possibility Blackgrass could be in the SMS due to the factors I highlighted above.

Tillage advisors have been informed of the composting and cookout process that is involved in the mushroom industry and are aware that the spreading of SMS has no correlation with Blackgrass appearing in tillage crops.
Fly Project
A project is currently being carried out in Teagasc, Ashtown with the aim of establishing a greater knowledge of the occurrence and lifecycle of the pests present on Irish commercial mushroom farms. This project will use this knowledge to investigate the efficacy of current pest controlling methods, and potentially identify candidate bio-pesticides for use during mushroom production. The project is currently placing yellow sticky traps, fitted with LED lights in order to increase the number of flies caught, on commercial farms in order to establish the pest species present on farms. Participation of Irish growers on this project would greatly help this project and increase growers’ knowledge of the pest presence on their farm.
Preparing Your Business for Brexit

With the confirmation of Boris Johnson as Prime Minister of the UK, and the appointment of a Cabinet consisting of Brexiteer members of the Conservative Party, the chances of a hard Brexit on 31st October is becoming increasingly likely.

If your business has not yet taken the necessary measures ahead of the deadline, see the following link which provides a 9 Step Guide To Prepare your Business for Brexit. This plan details the minimum that should be done between now and October from a Customs and VAT perspective.
Acknowledge the contributions of: Donal Gernon, Helen Grogan, Dermot Callaghan, Irene Marongiu, Brian McGuiness, Michael Gaffney and Orla O’Halloran.

Contact

Please get in touch if you would like further information, if you have any issues you would like to discuss or topics you would like to hear more about.

Mob.087 2258647 - Email donal.gernon@teagasc.ie