



Organic Centre Wales  
Canolfan Organig Cymru

Response from Organic Centre Wales, IBERS, Aberystwyth University SY23 3EB  
to the Soil Association consultation on:

### **Protected Cropping Standards Consultation 1**

<http://www.soilassociation.org/Takeaction/Consultations/tabid/231/Default.aspx>

**Name: Tony Little**

**Company/Organisation: Organic Centre Wales**

Organic Centre Wales (OCW) was established in 2000 as a focal point for the dissemination of information on organic food and farming to producers and other interested parties in Wales. In 2003, it was agreed that it should extend its focus to public education, public procurement, policy and strategy development, thus providing support to the whole of the organic community in Wales. It is based at Aberystwyth University.

OCW is run by a partnership of three organizations actively involved in organic farming research and knowledge transfer in Wales: ADAS, The Organic Research Centre Elm Farm (ORC) and Institute of Biological, Environmental and Rural Sciences (IBERS) at Aberystwyth University.

The funding for OCW comes from the Welsh Assembly Government (WAG) to carry out the co-ordination functions, with additional funding through a separate WAG contract for delivery of the Organic Conversion Information Service. Additional support from the European Union EAFRD provides the Farming Connect Organic Development Programme and the Better Organic Business Links Supply Chain Efficiencies project for the organic sector.

### **Background information**

Horticulture is a small, but important part of the organic sector in Wales and involves just over 100 certified producers. The land area devoted to organic horticulture in Wales is unclear, because of large discrepancies between different data sources, but our best estimate is that there are 110 Ha. Most producers are marketing direct and locally, although a small number of larger producers are supplying the one major organic wholesaler in Wales. Protected cropping is of great significance to the majority of growers because it allows them to produce a wider range of high value crops for a longer period. This is not only very important for supplying direct and local markets, but vital for the financial sustainability of many businesses. We therefore welcome the opportunity to contribute to this consultation.

#### **1. Rotations**

- a. Should the Soil Association standards require protected cropping systems to rotate crops?
- b. What would be the benefits?
- c. If so what is possible/preferable given the constraints of the system?
- d. Should standards allow growers to not rotate under some circumstances?

- e. Or should standards allow other means of diversification in space and time such as intercropping or under-sowing?

Multi-annual rotations are key part organic production systems and an important element of the EU Regulations. They contribute to soil fertility; soil structure; pest disease and weed control; and diversity. There should therefore be a presumption that a crop rotation should be in place. However, the consultation document rightly points out, the economics of protected cropping limit the range of crops that are grown and the extent to which long term fertility building crops can be used.

We therefore agree that there should be some flexibility to allow a zero rotation but only when all other possibilities have been exhausted. Growers would need to identify alternative mechanisms, such as the application of good quality compost, that deliver the benefits of rotations identified above, while staying consistent with the organic principles. There are good examples of this practice with in Wales. Diversity can be achieved by other means such as intercropping or under-sowing, which are also very much in keeping with the organic principles.

## 2. Pest, weed and disease control

- a. Should any of these methods be permitted for use in protected cropping systems?
- b. Should the standards require other methods to ensure that the soil is healthy and pests and disease are kept to a minimum? For example, variety selection, compost addition, application of microbes, intercropping, grafting etc.?

**Pesticides:** We see no reason why there should be differences between pesticides approved for organic field crop and organic protected crops, and share the belief that pests can be controlled by current standards (although we are surprised to learn of the Woodlice's elevation to pest status!)

**Weed control:** We agree that the proposed methods are effective, and consider mulching is also an important method not included in the consultation.

**Steam sterilisation and solarisation:** We have reservations about these techniques, as they run contrary to some important aspects of the organic principles and the emphasis they place on a healthy, biologically active soil as the foundation of organic systems. However, we acknowledge that in extreme circumstances, they may represent the only solution to persistent and established pest and disease issues. We therefore believe that these methods should be permitted only all other methods have been exhausted and in any event only once in 5 years.

**Hot foam:** On the basis of the information provided in the consultation document we see no reason why this method should not be acceptable – It is specific to weed species by virtue of the application method, it is very short term in its action, it is biodegradable and non-toxic, and has little or no impact on the wider ecology of the system. However, care should be taken to ensure that detergents used in the foam method are acceptable inputs for organic production.

## 3. Fertility

- a. Should allowance be based on plant demand?
- b. Is there a reliable way of measuring this?
- c. Should nutrient allowance vary between heated and unheated systems? Should the standards be amended to allow growers greater flexibility to add potassium?
- d. If so, how should need be assessed?

Due to the more intensive nature of protected cropping systems, we agree that the limits in place on N for field cropping systems are not appropriate for

protecting cropping, although we do not understand the reasons behind the 170 Kg/ Ha limit from animal manures. While we do understand the reasoning behind a nutrient allowance based on plant demand, we see difficulties in implementing this in practice. It could only be based on very crude estimations of inputs and outputs, and place an unnecessarily large burden on growers in terms of recording. We therefore recommend that limits are placed on inputs for heated and for unheated on an area basis.

Soluble potassium inputs are permitted but the use of these should be subject to strict control and only used to bridge the gap between crop requirements for potassium and the amount supplied from the soil, recycled materials and bulky organic inputs – which could be determined by nutrient budgets.

#### **4. Soil**

- a. Are the principles in the EU organic regulation borne out through protected cropping systems that grow in substrates?

No. If we accept that the concept of a healthy, biologically active soil is a fundamental principle of organic production, then this should also apply to protected cropping systems. All established definitions of soil make reference to its connection to the earth. The association with the parent material is important for the nutrient cycling, particularly with respect to K, and soil biology. Compromising this fundamental principle of organic production to allow producers to dip in and out organic certification would, we feel, set a dangerous precedent.

We acknowledge mushrooms as a special case. They are fungi that derive all their nutrition from the substrate unlike plants which derive most of their dry matter from carbon dioxide in the air. For that reason they need a highly organic medium in order to produce commercial yields.

#### **5. Heating and lighting**

- a. Should growers using heat be required to measure, and progressively reduce the amount of energy they use for this purpose?
- b. Should the standards ban the use of fossil energy for the heating of glasshouses?
- c. Should use of renewable energy sources be encouraged through education?
- d. Should standards require glass to be cleaned sufficiently so that light levels are optimised?

It is our opinion that all businesses should seek to reduce GHG emissions, in keeping with the organic principles on efficient resource use, and minimising the adverse impact of organic production systems on the wider environment. We agree that growers should be required to measure and progressively reduce, or least justify, the amount of energy they use for this purpose.

Burning fossil fuels for the sole purpose of heating glasshouses is not, in our view, consistent with the organic principles. That said, an immediate ban is not practical but a progressive reduction in the amount of energy derived from fossil fuels would be appropriate. We agree that renewable energy resources should be encouraged through education.

Ensuring glass and polytunnel covers are clean to optimise light levels is to be recommended. However, we are not convinced that this is important for the integrity of the system. We therefore suggest its inclusion as a recommendation, rather than as a standard

#### **6. Carbon dioxide enrichment**

- a. Is it acceptable to enrich the air with CO<sub>2</sub> to prevent depletion or increase productivity?
- b. If yes, should there be requirements for how the CO<sub>2</sub> has been produced?

We have no problem with Carbon dioxide enrichment per se, however burning fossil fuels for the sole purpose of CO<sub>2</sub> enrichment is not acceptable. The CO<sub>2</sub> used should only as a by product of essential heating.

### **7. Water**

- a. Should the Soil Association consider ways of encouraging licensees to use rainwater run-off from permanent structures?

Water is a valuable resource, and should be treated as such. If predictions about the general pattern of climate change are correct, we will need to become much better at managing and conserving water. It is our view that in the not too distant future, water footprints will become as important as carbon footprints. We believe the Soil Association should consider ways of encouraging licensees to use rainwater run-off from permanent structures.

### **8. Buildings and structures**

- a. Is it within the scope of standards developed for protected cropping to look at where glasshouses and permanent polytunnels are sited?

There are technical and aesthetic reasons for choosing the site of a protected cropping structure. Technical reasons are within the control of the producer and include factors such as topography, soil conditions, exposure to wind etc. Aesthetic aspects are under the control of local councils, and rightly so. We do not see a role for the standards in choosing the site of permanent structures.

**Further comments:**