

Organic Crop Farming

Arable farmers today are facing considerable challenges in running a profitable business. In recent months they have seen unprecedented price rises in their main operating costs such as fuel, fertiliser and energy. No farming enterprise has been able to avoid the impact of these soaring prices. In addition, they have been affected by a shortage of seasonal workers to operate efficiently through the harvest season, extreme weather events caused by climate change and a reduction in the price paid for their produce. Farmers are having to reduce their costs and adapt their business models in response to these challenges. Some are considering diversifying away from conventional farming to organic farming. This would reduce their reliance on expensive artificial fertilisers and the fuel costs involved with spreading them across their fields. Organic methods of crop production offer a possible solution to these problems but it is not by any means a simple solution and requires careful consideration and planning.

What is Organic Farming?

Organic farming is also known as ecological farming. It is an agricultural system of cultivating land to produce food using natural substances and processes. Crops are nurtured and grown without the use of synthetic fertilisers and pesticides. Organic techniques include:

- ★ biological pest control
- ★ companion planting
- ★ crop rotation
- ★ fostering natural insect predators
- ★ mixed crops for pest control
- ★ natural fertilisers such as compost and green manure.

There are sound environmental reasons and ecological benefits to organic farming. This uses sustainable techniques which benefit the wildlife, protect the environment and conserve natural resources. Healthy and fertile soil helps build resilience to the impacts of climate change. Organic farms release fewer greenhouse gas emissions and are more energy efficient, using 45% less energy than conventional farms.

Growth in Organic Farming

Organic farmland is increasing at a rate of 5% every year with all continents seeing strong growth. Over 78 million hectares are farmed organically which is over 1.6% of all agricultural land. Over half of this land is in the Oceania region (38 million hectares), followed by Europe (20 million hectares) and Latin America (12 million hectares). The global retail market for organic

food is also showing strong growth. Consumers are becoming more aware of environmental issues and the numerous health benefits associated with a natural diet. Many perceive organic food to be higher quality with rich nutritional value and multiple health benefits. As a result of increased public demand total sales in the organic food market exceeded 126 billion Euros last year. The following table shows this retail growth:

<i>Growth in organic retail sales (million €)</i>			
<i>Region</i>	<i>2010</i>	<i>2017</i>	<i>2023</i>
<i>Africa</i>	<i>0.28</i>	<i>16.52</i>	<i>17.27</i>
<i>Asia</i>	<i>1902.24</i>	<i>10079.24</i>	<i>13167.36</i>
<i>Europe</i>	<i>20413.85</i>	<i>39566.12</i>	<i>54600.25</i>
<i>Latin America</i>	<i>14.37</i>	<i>1138.80</i>	<i>816.88</i>
<i>North America</i>	<i>20184.78</i>	<i>45162.80</i>	<i>56402.94</i>
<i>Oceania</i>	<i>742.44</i>	<i>1357.73</i>	<i>1674.16</i>
<i>World Total</i>	<i>43257.97</i>	<i>97321.21</i>	<i>126678.87</i>

There are 3.4 million organic producers in 190 countries with the largest number in India. Swiss consumers spent the most per person on organic food and Denmark continues to have the highest organic market share with 13% of its total food market.

Organic Certification

The labelling and marketing of organic food products is strictly controlled and regulated. It is illegal to call a food product organic if it has not been inspected and certified by an approved organic control body. Any substance or compounds used in organic agriculture must comply with organic regulations and be verified as suitable for use in organic production systems.

Producer Certification

Organic agricultural methods are internationally regulated and legally enforced by governments in many countries. Certification and accreditation systems have been established to protect the production of organic goods. Any person or business that produces organic products must hold a legal certificate of registration from a government approved control body and be inspected at least annually. The process of gaining approval is long and demanding with complex documentation and a considerable amount of initial investment. To start the process a completed application form must be submitted along with the registration fee which varies depending on the size of the land. A certification officer will be assigned who acts as a point of contact and provides guidance throughout the conversion and certification process. All certification officers have extensive knowledge of the regulations as well as practical experience in the industry. Applicants are required to produce an Organic System Plan which provides a detailed description of how the farming practices and procedures will meet the organic standards.

A physical barrier such as a road, hedge or a 10-metre buffer zone must separate organic farmland from conventional farmland. This is to protect the organic crops from contamination by chemical fertilizers and pesticides used in traditional farming which may drift over to the organic land.

Following a review of the application and documentation an inspector will visit the farm to carry out an initial inspection. This visit will take

approximately two hours for smaller operations and up to a full day for larger, more complex operations. The inspector will report their findings and identify any changes that are needed to bring production into line with the standards. Farms must undergo a conversion period where the land is managed using the organic production methods outlined in the Organic System Plan. The conversion period for land is typically two years. This provides time to establish organic management techniques and build soil fertility and biological activity. All plants that are grown during the conversion period must come from organic seeds. For crops to be marketed as organic the seeds must be sown and harvested from land that has completed its conversion period and has organic status. The conversion period can be a financially difficult time for farmers. Organic methods often result in lower yields and higher production costs. The food produced during the conversion period cannot be classified as organic and therefore cannot command a premium price. This leaves the farm in a state of uncertainty with reduced income.

Once all these stages have been successfully completed the farm will achieve organic status and be registered in the National Register. A Certificate of Compliance will be issued which confirms the farm is a certified organic producer and the crops can now be marketed as organic. A farm schedule will specify the crops produced, the fields and area under organic management, and the date organic conversion began. Certification is valid for one year. Fees are payable on the renewal date each year and an annual inspection is completed to ensure the production and processing standards are still being met. The farm will also benefit from ongoing support from the certification officer who is dedicated to looking after the licence.

The Future

Organic farming has a bright future. Public demand for organic food is growing so fast that consumer demand is exceeding some domestic supplies. Significant industry growth is predicted in the next decade. The European Union has set a target that 25% of all agricultural land will be organically farmed by 2030. It is also a popular farming method in other continents where production and fertiliser costs are expensive. In some countries organic farming produces 80% more than conventional farms and organic farmers earn higher incomes due to lower production costs and the price premium paid for their organic produce. Whatever the location there has never been a better time for conventional farms to convert to organic farming.