

## Apprenticeship Standard for Crop Technician

With over 150,000 businesses, the agriculture and horticulture industries form the vital starting point for both the food and landscaping industries which account for over 14% of the British GDP. As a result they offer exciting and varied careers in the UK and abroad. The industry provides unique opportunities for people to work in a technically advanced and innovative environment. Businesses within the industry range from small enterprises through to international organisations. Work in soil based systems involves operating large, technically advanced machinery in the open fields. Working outdoors, means there is variety and challenges to overcome. Similarly Crop Technicians working in container based systems may work outside but for many the majority of work will be in controlled environments, which need monitoring and adapting to suit the growth stage/species growing.

As a Crop Technician you will be responsible for optimising crop/plant yields through establishment, management, harvest and post-harvest operations, while maintaining and improving the surrounding environment. You will also need to keep up to date with technological advances and new innovations. Being a Crop Technician requires self-motivation and the ability to work both independently and as a team player to complete tasks safely and efficiently. Many companies now use automation for a number of routine tasks, which will require technical skills to operate. This standard provides the opportunity for individuals to acquire the 'knowledge', 'skills' and 'behaviours' required and follows a 'core and options' approach. This allows the flexibility to learn core subjects and then specialise in either 'soil based system' or 'containerised systems'.

Core Skills		Option - Soil based system	Option - Container based system
<b>Overarching</b>	<ul style="list-style-type: none"> <li>Promote and maintain health, safety and security</li> <li>Manage accurate records within the workplace</li> <li>Maintain and operate machinery and other equipment to allow safe and efficient operation</li> </ul>	Soil based systems are used to grow a wide variety of crops in fields. This includes cereals, oilseeds, a number of vegetables and fruit trees. Production is dependent on the natural resources and physical inputs (plant nutrients etc) and very reliant on the weather which has a significant impact on the growth and ultimate management of a crop. This means you must have the knowledge and ability to adapt at short notice to ensure a high quality product.	Container based systems are generally used within horticulture to grow plants and trees but can also be used for fruit production. In a containerised system, the environment is 'managed' and it is likely you will spend a proportion of your time indoors. Container production will involve monitoring and caring for vast numbers of plants on an individual basis, requiring good observational skills and attention to detail.
<b>Crop Establishment</b>	<ul style="list-style-type: none"> <li>Prepare seed bed/growing medium for maximum growth potential</li> <li>Carry out relevant establishment of crops for efficient growth</li> </ul>		
<b>Vehicle Operation</b>	<ul style="list-style-type: none"> <li>Competently operate (to the equivalent of a certified level) a relevant vehicle used in the business</li> </ul>		
<b>Crop Management</b>	<ul style="list-style-type: none"> <li>Control of pests, weeds and diseases including safe use, application and storage of chemicals</li> <li>Carry out plant nutrient application and/or irrigation tasks if applicable to aid growth of crop</li> </ul>		
<b>Harvest</b>	<ul style="list-style-type: none"> <li>Carry out harvesting operations including assessment of timing and quality</li> <li>Appropriate harvesting techniques to match crop condition and quality requirements</li> <li>Operate to high levels of hygiene</li> </ul>		
<b>Storage</b>	<ul style="list-style-type: none"> <li>Store crops in suitable conditions to maintain quality</li> </ul>		
<b>Maintenance and Preparation</b>	<ul style="list-style-type: none"> <li>Soil/substrate maintenance tasks to ensure efficient and healthy growth of the crop/plant</li> <li>Soil/substrate sampling and acting upon results as appropriate to ensure nutrition is correct</li> </ul>		
		<b>Specific skill requirements:</b>	<b>Specific skill requirements:</b>
		<ul style="list-style-type: none"> <li>Correctly set machinery and monitoring machine performance for good seed establishment and crop growth</li> <li>Correctly set machinery to match crop and soil condition and quality requirements during harvest</li> <li>Maintenance of non-productive areas</li> </ul>	<ul style="list-style-type: none"> <li>Optimise growth conditions for specific crops, based on the individual needs of the plant relative to environment</li> <li>Maintenance of productive and non-productive areas</li> <li>Plant removal</li> </ul>
		<b>Specific knowledge requirements:</b>	<b>Specific knowledge requirements:</b>
		<ul style="list-style-type: none"> <li>Impact of machinery on soil structure and potential damage.</li> </ul>	<ul style="list-style-type: none"> <li>Different growing mediums and their impact/relevance to production on site.</li> </ul>

Knowledge	Behaviours	Further Information					
<ul style="list-style-type: none"> <li>• Health and safety legislation and codes of practice in relation to the job role/workplace including contingency/emergency plans</li> <li>• Practical health and safety information to ensure everyone is safe in the workplace</li> <li>• Environmental issues/legislation, codes of practice and company policies</li> <li>• Importance of maintaining systems for record keeping and storage used within the organisation</li> <li>• Maintenance/efficient use of machinery and equipment</li> <li>• Preparation methods, timing of activities and aftercare requirements for the crops grown on-site</li> <li>• Crop identification and establishment process including principles and methods</li> <li>• Principles of plant growth and development and plant health</li> <li>• Input costs, cost of production, margins and impact on business profitability</li> <li>• Identification of key pests weeds and diseases and awareness of control mechanisms including potential impact on environment</li> <li>• Relationship between environmental conditions (including weather), plant protection methods and crop growth</li> <li>• Importance of maintaining good standards of hygiene and environmental control relating to crop/food storage (where relevant)</li> <li>• Quality standards and specifications relevant to their business and their importance</li> </ul>	<p>Apprentices need to develop a diverse set of personal skills and behaviours to ensure success in their chosen profession. These include:</p>	<table border="1"> <tr> <td><b>Entry requirements</b></td> <td>There are no previous qualifications required to start this apprenticeship, but you must have the attitude and ability to develop the required skills and knowledge during the apprenticeship. This will usually be tested via an application/interview process.</td> </tr> </table>	<b>Entry requirements</b>	There are no previous qualifications required to start this apprenticeship, but you must have the attitude and ability to develop the required skills and knowledge during the apprenticeship. This will usually be tested via an application/interview process.			
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\*these certificates are to be gained during the apprenticeship, unless the apprentice already holds them.