



# Careers in the Science Curriculum

## Land-based, farming and growing

This document is designed to help science teachers build practical careers information into their classes across different years of the education programme.

Each role described in this document details the specific national curriculum subject area and topic in which that role may be discussed, along with resources such as videos to help your lessons come to life.

Additionally, the document includes links to key employers for each role, plus information on the standard qualifications required to pursue that role.



### More on this document:

The jobs referenced in this document are directly linked to farming and growing or ancillary roles to the industry. The industry needs committed individuals in these roles and many more in order to move forward effectively and supply the nation's home-produced, high-quality food while maintaining the environment.

Contrary to common belief, many of these roles are very well paid, have excellent potential for progression and do not require high levels of physical strength or fitness. They all provide huge job satisfaction and help role holders feel that they are contributing to future food security, conservation of the environment and animal welfare! Please note: We have provided a salary guide where possible for each role, however figures may vary across different websites. Variations in salary are also dependent on level of experience, age, responsibilities and location.

### Using this resource:

All links provided are free to access.

If you come across any issues, changes or improvements, please email [ruth@tiah.org](mailto:ruth@tiah.org).

It's recommended the teacher starts the conversation about careers by giving the students a choice of three careers. The students can then decide which one the material they have just learned in the lesson links to.

If time allows, you could then do one of the activities, watch a video or discuss possible salaries/qualifications using the information on the job tables in the document.

### Use of tags

All of the job profiles below are marked up with tags as used on the The Institute for Agriculture and Horticulture's website. These can be used to filter through careers profiles on the site, allowing users to find roles which suit their interest.

### Index of roles

There are currently 35 roles. If you would like to see any other roles included, contact [ruth@tiah.org](mailto:ruth@tiah.org).

Year of study	Name of role	Year of study	Name of role
7	<a href="#">Agronomist (crop vet)</a>	8	<a href="#">Rural surveyor</a>
7	<a href="#">Architect/Building designer</a>	8 and 9	<a href="#">Vertical farming operative</a>
7	<a href="#">Beekeeper</a>	8 and 9	<a href="#">Agronomist</a>
7	<a href="#">Breeding technician/Artificial insemination technician</a>	8 and 10	<a href="#">Vet</a>
7	<a href="#">Chef</a>	8 and 10	<a href="#">Vet nurse/Technician or Physiotherapist</a>
7	<a href="#">Commercial horticulturist</a>	9	<a href="#">Tree surgeon/Arborist</a>
7	<a href="#">Fieldsperson (pig breeding specialist)</a>	9	<a href="#">Hedgelayer</a>
7	<a href="#">Livestock scanner</a>	9	<a href="#">Plant breeding technician</a>
7	<a href="#">Nature conservation officer</a>	9	<a href="#">Equine cardiologist</a>
7	<a href="#">Soil scientist</a>	9	<a href="#">Fermentation and brewing roles</a>
7 and 8	<a href="#">Agricultural engineer</a>	9	<a href="#">Fertiliser/Pesticide manufacturer</a>
7 and 9	<a href="#">Animal nutritionist</a>	10	<a href="#">Calf rearer</a>
7 and 9	<a href="#">Food scientist/Technologist</a>	10	<a href="#">Forest or Woodland manager</a>
7 and 9	<a href="#">Sustainability adviser/Environment consultant</a>	10	<a href="#">Fish farm manager</a>
8	<a href="#">Farm manager (crops)</a>	10	<a href="#">Farm manager</a>
8	<a href="#">Pest control technician</a>	10	<a href="#">Pharmacologist</a>
8	<a href="#">Biomass farmer</a>	10	<a href="#">Tractor driver</a>
			<a href="#">Environmental officer/Inspector</a>

## Overview of role:

### Agronomist (crop vet)

An agronomist's role is to advise the farmer on the scientific aspects of growing crops and managing soils to ensure maximum productivity and help protect the environment.

Also known as an agriculturalist (crops), crop scientist, agricultural consultant, agronomy manager, or crop vet. Agronomists work to use chemical, physical and biological methods keep their crops healthy.



Year of study: 7

Subject and topic: Science, Fertilisation and Germination

Tags: With plants, In science and technology, To help the environment

Salary: £20,000 to £60,000 per year depending on age, location and experience.

Qualifications: National Careers Service – Agronomist  
[nationalcareers.service.gov.uk/job-profiles/agronomist](https://nationalcareers.service.gov.uk/job-profiles/agronomist)

Employers: Work at Frontier – Frontier Agriculture  
[frontierag.co.uk/work-at-frontier](https://frontierag.co.uk/work-at-frontier)

Grow with us – Vitacress  
[vitacress.com/join-us](https://vitacress.com/join-us)

Videos: TIAH – Agronomist job profile  
[tiah.org/w/agronomist](https://tiah.org/w/agronomist)

Resources: Nutrients for Life Game  
[nutrientsforlife.org/product/nutrients-for-life-game](https://nutrientsforlife.org/product/nutrients-for-life-game)  
Try this game where you have to water and add the elements nitrogen, phosphorous and potassium to your corn to make it grow. Will you be a rookie farmer?

[Return to table of roles](#)

## Overview of role:

### Architect/Building designer

This type of specialist architecture or building design allows farmers and growers to have buildings that exactly meet their needs in terms of size, ventilation and energy efficiency.

Industrial architecture prioritises the practical use of a building over its exterior appearance, making it functionally ideal. These developments also face additional complications in gaining planning permission for buildings or landscaping prior to the start of any project.



Year of study: 7

Subject and topic: Science, Power rating / cost

Tags: In a team, In engineering and machinery, In science and technology, Indoors

Salary: A look at the current employment market shows fully trained entry level industrial architects earn in excess of £34,000 per year rising to £58,000 per year for experienced architects.

Qualifications: National Careers Service – Architect  
[nationalcareers.service.gov.uk/job-profiles/architect](https://nationalcareers.service.gov.uk/job-profiles/architect)

If you would like to train as an architect and then specialise in industrial architecture, then there's a wealth of advice on the Royal Institute of British Architects (RIBA) website.

RIBA – Pathways to qualify as an architect (architecture.com)  
[architecture.com/education-cpd-and-careers/how-to-become-an-architect](https://architecture.com/education-cpd-and-careers/how-to-become-an-architect)

Employers: RIDBA | Rural and Industrial Design Building Association  
[ridba.org.uk](https://ridba.org.uk)

Robinsons Group – Agricultural Buildings  
[robinsons-group.com/robinsons-agricultural](https://robinsons-group.com/robinsons-agricultural)

Saxby Hatfield – Planning Permission For Agricultural Building  
[saxbyhatfield.co.uk/planning-permission-for-agricultural-building](https://saxbyhatfield.co.uk/planning-permission-for-agricultural-building)

Videos: Lely – Lely bright farming solutions  
[youtube.com/watch?v=LpIKyMbPs5o](https://youtube.com/watch?v=LpIKyMbPs5o)  
This video demonstrates all the things a cattle shed needs to provide for a modern milking herd. There's a lot more to this shed than you might think.

Resources: You could ask the students all the things that a cattle shed would need to include before you watch the video and ask them to note down all the things mentioned during it. The lists will likely be quite different!

[Return to table of roles](#)

## Overview of role:

### Beekeeper

An apiary, often called a beekeeper, maintains and manages colonies of honeybees for the production of honey as well as to provide pollination services.

Beekeepers will also construct hives, replace combs, and collect and package any hive products including honey, beeswax, and pollen.



Year of study: 7

Subject and topic: Science, Flowers and Pollination

Tags: On my own, With animals, In science and technology, To help the environment

Salary: This can be done on an employed basis, as a hobby or as a small self-run business. Full time beekeepers can earn in the region of £35,000.

Qualifications: CPD Online – How to Become a Beekeeper  
[cpdonline.co.uk/career-guides/how-to-become-a-beekeeper](https://cpdonline.co.uk/career-guides/how-to-become-a-beekeeper)

Employers: Bee Farmers Association – Plan B Ltd  
[beefarmers.co.uk](https://beefarmers.co.uk)

Videos: The Telegraph – Young beekeepers – the new generation bringing back British bees  
[youtube.com/watch?v=mn\\_V8xB1ayo](https://www.youtube.com/watch?v=mn_V8xB1ayo)  
This video is about how a young beekeeper has trained with the Rouse honey 'Be a beekeeper' scheme!

Resources: The Bee Centre – bee-related education, breeding and husbandry  
[thebeecentre.org](https://thebeecentre.org)  
Find out more at the Bee Centre in Chorley, Lancashire.

[Return to table of roles](#)

# Breeding technician/ Artificial insemination technician

## Overview of role:

### Breeding technician/ Artificial insemination technician

A breeding technician is responsible for the successful breeding programme of cows within a dairy herd to high welfare standards and to ensure a sustainable farm business.

There are also roles that involve the artificial insemination of pigs.



Year of study: 7

Subject and topic: Science, Reproduction – Male and female reproductive systems

Tags: In science and technology, With Animals, On my own (day to day)

Salary: £25,000 plus for fully qualified technicians, depending on age, experience, responsibilities and location.

Qualifications: Breeding technician – TIAH  
[tiah.org/w/breeding-technician](http://tiah.org/w/breeding-technician)

Employers: Two larger genetics organisations are Genus and Cogent UK but smaller businesses also exist, such as veterinary practices which specialise in farm animals. Many practitioners start by training with one of the larger organisations before moving to a smaller organisation.

Careers – Genus  
[genusplc.com/work-for-us/working-at-genus](http://genusplc.com/work-for-us/working-at-genus)

Careers – Cogent UK  
[careers.cogentuk.com](http://careers.cogentuk.com)

Videos: [Repro360 – How an AI Technician Inseminates a Cow](https://www.youtube.com/watch?v=si-1Cc_h854)  
[youtube.com/watch?v=si-1Cc\\_h854](https://www.youtube.com/watch?v=si-1Cc_h854)  
This Australian video contains some good graphics that show what's achieved during the process.

There are a great range of training courses and models available for artificial insemination and the two following videos show a couple of these.

Minitube – AI training model Henryetta  
[youtube.com/watch?v=zlcFoRMlejY](https://www.youtube.com/watch?v=zlcFoRMlejY)

Bovine Breeder™ artificial insemination simulator – Realityworks Inc  
[youtube.com/watch?v=4LuHdiEjtX0](https://www.youtube.com/watch?v=4LuHdiEjtX0)

Resources: You might want to ask your class why we use artificial insemination on farms? The reasons are:

- No animals are injured during the act of mating
- No humans are injured by large potentially aggressive bulls
- Farmers get access to better bull genetics and more breeding options
- AI reduces the rate of transmission of STIs/STDs
- You remove the cost of keeping a bull on the farm

[Return to table of roles](#)

## Overview of role:

### Chef

Using an understanding of the farmed and native flora and fauna of the British Isles allows a chef to produce highly prized recipes and food which showcase what British Farmers and growers can produce.

Could be self-employed or work in a specialist restaurant/hotel/catering organisation. You will need to have good relationships with producers and may even grow some of your own produce.



Year of study: 7

Subject and topic: Science, Comp energy in food

Tags: In a team, On my own

Salary: £22,000 to £40,000 per year depending on age, location and experience.

Qualifications: National Careers Service – Chef  
[nationalcareers.service.gov.uk/job-profiles/chef](https://nationalcareers.service.gov.uk/job-profiles/chef)

Employers: National Careers Service – Chef  
[nationalcareers.service.gov.uk/job-profiles/chef](https://nationalcareers.service.gov.uk/job-profiles/chef)  
 Or ask around in your local area to find a restaurant specialising in British produce and see if you can get an entry level job to gain experience within the role.

Videos: Good Housekeeping – Inside the Black Swan  
[youtube.com/watch?v=IIsRdvJqO8E](https://youtube.com/watch?v=IIsRdvJqO8E)  
 Watch some of this video about Yorkshire chef Tommy Banks and his specialist British produce restaurant.

Resources: L'Enclume – Sample Menu  
[lenclume.co.uk/sample-menu](https://lenclume.co.uk/sample-menu)  
 This is a link to a high class tasting menu from a famous restaurant in the Lake District. You could look at this and see if there are any foods that students are unfamiliar with or would like to discuss.

[Return to table of roles](#)

## Overview of role:

### Commercial horticulturalist

Commercial horticulturalists are involved in the growing, distribution and selling of food, crops and plants.

As a commercial grower, you'll usually specialise in field crops, protected growing (for example, under glass), soft and top fruit, hardy nursery stock or cut flowers.



Year of study: 7

Subject and topic: Science, Fertilisation

Tags: In a team, With plants, In science and technology

Salary: £17,000 to £35,0000 per year depending on age, location and experience.

Qualifications: Prospects – Commercial horticulturalist job profile  
[prospects.ac.uk/job-profiles/commercial-horticulturalist](https://prospects.ac.uk/job-profiles/commercial-horticulturalist)

Employers: James Coles and Sons (Nurseries) Ltd  
[colesnurseries.co.uk](https://colesnurseries.co.uk)

Videos: Royal Horticultural Society – How to get into Horticulture  
[youtube.com/watch?v=WCdQeZKlcXQ](https://youtube.com/watch?v=WCdQeZKlcXQ)

TIAH – Growing manager (horticulture)  
[tiah.org/w/growing-manager-horticulture](https://tiah.org/w/growing-manager-horticulture)  
For more advanced job in commercial horticulture, look at this profile from TIAH.

Resources: We are Teachers – 33 Plant Life Cycle Activities  
[weareteachers.com/plant-life-cycle-activities/](https://weareteachers.com/plant-life-cycle-activities/)  
There are loads of really interesting plant growing activities here including a time-lapse video of a bean seed germinating.

[Return to table of roles](#)



## Overview of role:

### Fieldsperson (pig breeding specialist)

A fieldsperson advises pig farm managers on the latest techniques and management processes that will optimise breeding and production on their pig units.

May be employed by a large farming company or work as an independent specialist.



Year of study: 7

Subject and topic: Science, Female/Male repro

Tags: On my own, With animals, In science and technology

Salary: £15,000 to £30,000 per year depending on age, experience and location.

Qualifications: Level 3 Diploma in Agriculture  
T Level in Agriculture, Land Management and Production  
Or an agriculture related BSc degree

Employers: Roles of this type can often be found in specialist industry publications such as Pig World Jobs. [pig-world.co.uk/jobs](http://pig-world.co.uk/jobs)

Videos: TIAH – Fieldsperson  
[tiah.org/w/fieldsperson-pigs](http://tiah.org/w/fieldsperson-pigs)

Resources: This is a very specialist role for the pig sector because pigs are unique among farm animals. Female pigs, known as sows, tend to produce far more young than other commonly farmed animals, averaging more than 12 piglets per litter.

Ask students to guess the average and largest litter ever, then research it. The largest litter recorded was 41 piglets produced by a single sow in Brazil in 2023.

They also have reproductive traits that are unusual in that the boar has a corkscrew shaped penis and the sow has a reciprocally shaped cervix. You might want to share this piece of information with your class!

[Return to table of roles](#)

## Overview of role:

### Livestock scanner

The technician operates a scanner that uses soundwaves to build a picture of the animals' internal organs and any foetus developing within the womb.

Images are then sent to a screen, allowing the livestock scanner to see the number of offspring and any health conditions the animals may have.



Year of study: 7

Subject and topic: Science, Male/female reproduction

Tags: On my own, With animals

**Salary:** This is a role that may make up part of a larger job. For example, it may be part of the work of a veterinary technician, or a person may set up their own small business in which the workload dictates the hours worked. On this basis, it's hard to attach a specific level of salary to the role.

**Qualifications:** TIAH – Livestock scanner. Scroll to qualifications.  
[tiah.org/w/livestock-scanner](http://tiah.org/w/livestock-scanner)

**Employers:** Can be a self-run small business opportunity or sometimes individuals doing this job are employed by vets.

**Videos:** The Royal Highland Education Trust – Sheep Scanning  
[youtube.com/watch?v=XjrHJnncuSg](https://youtube.com/watch?v=XjrHJnncuSg)  
Scroll to 50 seconds in to see how sheep scans look, how they are interpreted and the reasons for scanning.

**Resources:** TIAH – Livestock scanner  
[tiah.org/w/livestock-scanner](http://tiah.org/w/livestock-scanner)

[Return to table of roles](#)

## Overview of role:

### Nature conservation officer

Nature conservation officers manage and protect the environment by promoting sustainability, educating others, and providing information and analysis.



Year of study: 7

Subject and topic: Science, Bioaccumulation

Tags: To help the environment, With animals, With plants and crops

Salary: £19,000 to £35,000+ per year depending on age, location and experience

Qualifications: Prospects – Nature conservation officer job profile  
[prospects.ac.uk/job-profiles/nature-conservation-officer](https://prospects.ac.uk/job-profiles/nature-conservation-officer)

Employers: Green Careers Hub – Environmental Conservation Officer  
[greencareershub.com/find-your-green-role/job-profiles/environmental-conservation-officer](https://greencareershub.com/find-your-green-role/job-profiles/environmental-conservation-officer)

The Environment Agency – Careers  
[environmentagencycareers.co.uk/careers](https://environmentagencycareers.co.uk/careers)

Videos: The Wildlife Trusts – Meet our staff  
[youtube.com/watch?v=Hgw9oXeWJFQ](https://youtube.com/watch?v=Hgw9oXeWJFQ)

Resources: Marine Stewardship Council – Teachers & parents  
[msc.org/for-teachers/teach-learn-about-ocean-sustainability](https://msc.org/for-teachers/teach-learn-about-ocean-sustainability)  
Some great activities here in the Marine Stewardship Council website, including a Kahoot and 'Making a deal with the ocean.'

[Return to table of roles](#)

## Overview of role:

### Soil scientist

By carrying out research and using their findings to solve problems, soil scientists help to sustain biological infrastructures across the world.

As a soil scientist you'll gather, interpret and evaluate information about the chemistry, biology and physics of soil. Using the information obtained from this analysis, you'll inform and influence on diverse issues such as, agricultural production, biodiversity, climate change, environmental quality and human health land remediation.



Year of study: 7

Subject and topic: Science, Food chains and webs

Tags: In science and technology, To help the environment, With plants and crops

Salary: £16,000 to £35,0000 per year depending on age, location and experience

Qualifications: Some employers will expect post graduate qualifications linked to soil science for a job in this area but there are also undergraduate degrees such as soil science or environmental science of geology that would be useful.

Finally there's an apprenticeship, details of which can be found here:

Institute for Apprenticeships and Technical Education – Soil scientist  
[instituteforapprenticeships.org/apprenticeship-standards/soil-scientist-v1-0](https://instituteforapprenticeships.org/apprenticeship-standards/soil-scientist-v1-0)

Employers: The British Society of Soil Science (BSSS)  
[soils.org.uk](https://soils.org.uk)

Countryside Jobs Service (CJS)  
[countryside-jobs.com](https://countryside-jobs.com)

Earthworks-jobs.com  
[earthworks-jobs.com](https://earthworks-jobs.com)

Videos: British Society of Soil Science – Introduction to the British Society of Soil Science  
[youtube.com/watch?v=7Cx DjP4jaN8](https://youtube.com/watch?v=7Cx DjP4jaN8)  
This short video is about the importance of the field of soil science.

Resources: British Society of Soil Science –Soil Kids Questionnaire  
[soils.org.uk/wp-content/uploads/2023/04/Soil-Kids-Questionnaire\\_final.pdf](https://soils.org.uk/wp-content/uploads/2023/04/Soil-Kids-Questionnaire_final.pdf)

British Society of Soil Science – Education Materials  
[soils.org.uk/education/educational-materials](https://soils.org.uk/education/educational-materials)

[Return to table of roles](#)

## Overview of role:

### Agricultural engineer

Designing and problem-solving with equipment, vehicles and machinery that are used on farms and growing premises to effectively carry out labour intensive or heavy tasks.



**Year of study:** 7 and 8

**Subject and topic:** Science, Power rating / cost

**Tags:** In a team, In engineering and machinery, In science and technology

**Salary:** £25,000 to £45,000 per year depending on age, location and experience.

**Qualifications:** National Careers Service, agricultural engineer  
[nationalcareers.service.gov.uk/job-profiles/agricultural-engineer](https://nationalcareers.service.gov.uk/job-profiles/agricultural-engineer)

**Employers:** F Klucznik & Son/IAE  
[iae.co.uk/careers-with-iae](https://iae.co.uk/careers-with-iae)

Ifor Williams  
[iwt.co.uk/career-opportunities](https://iwt.co.uk/career-opportunities)

Fullwood Packo Dairy Group  
[fullwoodjoz.com/uk/about-us/careers](https://fullwoodjoz.com/uk/about-us/careers)

**Videos:** What's it like to be an agricultural engineer? - EatFarmNow  
[youtube.com/watch?v=VpumrHAq9NA](https://youtube.com/watch?v=VpumrHAq9NA)

**Resources:** Countryside Classroom – Teaching Resources  
[countrysideclassroom.org.uk/resources?search=agricultural%20engineering](https://countrysideclassroom.org.uk/resources?search=agricultural%20engineering)  
The Countryside Classroom Website has some great activities linked to agricultural engineering which students could do as part of a lunchtime club or similar.

The Institution of Agricultural Engineers (IAgrE)  
[iagre.org](https://iagre.org)  
Agricultural engineers have their own professional membership organisation, The Institution of Agricultural Engineers (IAgrE) with grades for all those working, or with an interest in, engineering, science and technology within agriculture and the environment.

[Return to table of roles](#)

## Overview of role:

### Animal nutritionist

The role of an animal nutritionist is to promote a better understanding of the effect of diet on the health, wellbeing and productivity of animals.

Most roles in this field are in agriculture, where you'll provide advice and information on animal nutrition, and design and evaluate the diets of the animals you work with. There are also roles in advising on the nutrition of zoo and companion animals (pets).



**Year of study:** 7 and 9

**Subject and topic:** Science, Com energy in food

**Tags:** With animals, In a team, In science and technology

**Salary:** Starting salary £18,000 to £22,000 rising to around £45,000 with experience.

**Qualifications:** Prospects – Animal Nutritionist  
[prospects.ac.uk/job-profiles/animal-nutritionist#qualifications](https://prospects.ac.uk/job-profiles/animal-nutritionist#qualifications)

**Employers:** AB Agri  
[abagri.com/careers](https://abagri.com/careers)

Chester and London Zoos  
[chesterzoo.org/work-with-us](https://chesterzoo.org/work-with-us)  
[zsl.org/about-zsl/working-at-zsl](https://zsl.org/about-zsl/working-at-zsl)

Cargill  
[careers.cargill.com/en](https://careers.cargill.com/en)

**Videos:** University of Glasgow – MSc Animal Nutrition  
[youtube.com/watch?v=jxPbV-9nEIE](https://youtube.com/watch?v=jxPbV-9nEIE)

**Resources:** FDA – Animal Feed: See, Touch, and Do  
[fda.gov/media/82051/download?attachment](https://fda.gov/media/82051/download?attachment)  
Interesting and thought-provoking set of activities put together by the US FDA relating to farm animal nutrition.

[Return to table of roles](#)

## Overview of role:

### Food scientist/Technologist

Food produced and sold in the UK must be accurately analysed for nutritional content, allergens and safety and this is performed by food scientists.

Much of the data generated in this process must then be presented on packaging and more recently on menus.



**Year of study:** 7 and 9

**Subject and topic:** Science, Com energy in food

**Tags:** In a team

**Salary:** £20,000 to £45,000 per year depending on age, location and experience.

**Qualifications:** National Careers Service – Food scientist  
[nationalcareers.service.gov.uk/job-profiles/food-scientist](https://nationalcareers.service.gov.uk/job-profiles/food-scientist)

**Employers:** Food Standards Agency  
[food.gov.uk](https://www.food.gov.uk)

**Videos:** 3M – Food safety: Unsung heroes  
[facebook.com/3MHealthCare/videos/226372179442365](https://www.facebook.com/3MHealthCare/videos/226372179442365)  
This American industry advert gets across that all food must be safety tested and that the ways of doing this are very technically advanced.

**Resources:** Discussion into food testing for energy, starch, etc. carried out in biology classes.  
e.g. using iodine to test for starch. Can anyone remember what food group starch belongs to and why it's important?

Countryside Classrooms activities, Food packaging  
[countrysideclassroom.org.uk/resources?search=food%20packaging](https://www.countrysideclassroom.org.uk/resources?search=food%20packaging)

[Return to table of roles](#)

## Overview of role:

### Sustainability adviser/ Environment consultant

This is a relatively new role where specialist advisers work with government bodies and other organisations to measure the impact of existing practices and products.

Sustainability consultants use their expertise and knowledge to advise and guide organisations such as farming and growing businesses to become socially and environmentally responsible.



**Year of study:** 7 and 9

**Subject and topic:** Science, Renewable energy

**Tags:** In a team, In science and technology, To help the environment

**Salary:** £18,000 to £50,000 depending on experience, training and sector.

**Qualifications:** National Careers Service – Environmental consultant  
[nationalcareers.service.gov.uk/job-profiles/environmental-consultant](https://nationalcareers.service.gov.uk/job-profiles/environmental-consultant)

**Employers:** Environmental consultant – National Careers Service  
[nationalcareers.service.gov.uk/job-profiles/environmental-consultant](https://nationalcareers.service.gov.uk/job-profiles/environmental-consultant)  
There are apprenticeships and entry-level jobs available in this sector, which can be found through the NCS website.

The Environment Agency  
[gov.uk/government/organisations/environment-agency](https://gov.uk/government/organisations/environment-agency)

**Videos:** Job of the Week Episode #066 – Sustainability Consultant – MyPath  
[youtube.com/watch?v=zN5WK1H4VaU](https://youtube.com/watch?v=zN5WK1H4VaU)

**Resources:** Schools Sustainability Guide – World Wide Fund for nature (WWF)  
[wwf.org.uk/sites/default/files/2022-07/WWF%20Schools%20Sustainability%20Guide.pdf](https://wwf.org.uk/sites/default/files/2022-07/WWF%20Schools%20Sustainability%20Guide.pdf)  
Staff and pupils can use this guide to find out how they can manage your buildings and grounds in a more sustainable manner.

[Return to table of roles](#)



# Farm manager (Crops)

aka. Arable farm manager

## Overview of role:

### Farm manager (Crops) aka. Arable farm manager

The farm manager is responsible for successfully producing crops, such as wheat, barley or oilseed rape in a sustainable farm business that promotes good environmental practice.

To do this they must understand many aspects of plant science, good business practice and mechanical engineering.



Year of study: 8

Subject and topic: Science, Photosynthesis

Tags: To help the environment, In a team, With plants and crops

Salary: Salaries are in the region of £30,000 to £53,000 but vary depending on experience, location, and crop type

Qualifications: TIAH – Farm manager (crops). Scroll to qualifications.  
[tiah.org/w/farm-manager-crops](https://tiah.org/w/farm-manager-crops)

Employers: You can look for roles in specialist publications such as the [Farmers Weekly](#) and the [Farmers Guardian](#) or with specialist recruitment firms such as [Redfox](#), [Cultura Connect](#), [De Lacey Executive](#) and [MorePeople](#).

Farmers Weekly  
[jobs.fwi.co.uk](https://jobs.fwi.co.uk)

Jobs in Agriculture – Farmers Guardian  
[jobs.farmersguardian.com](https://jobs.farmersguardian.com)

Redfox  
[redfoxexecutive.com](https://redfoxexecutive.com)

Cultura Connect  
[culturaconnect.co.uk](https://culturaconnect.co.uk)

De Lacey Executive  
[delacyexecutive.co.uk](https://delacyexecutive.co.uk)

MorePeople  
[morepeople.co.uk](https://morepeople.co.uk)

Videos: Royal Cornwall Show – Learn about arable crops  
[youtube.com/watch?v=9hAS6RpTgQ8](https://youtube.com/watch?v=9hAS6RpTgQ8)

Resources: Countryside Classroom – GCSE Business Studies – Finance on the Farm  
[countrysideclassroom.org.uk/resources/1278](https://countrysideclassroom.org.uk/resources/1278)

Countryside Classroom – The Story of Oilseed Rape  
[countrysideclassroom.org.uk/resources/976](https://countrysideclassroom.org.uk/resources/976)

[Return to table of roles](#)

## Overview of role:

### Pest control technician

A pest control technician identifies infestations. They also suggest and put into practice a range of processes to get rid of pests like rats, mice, wasps and cockroaches.

A pest control technician will also advise actions that will help their customers to avoid future problems with pests.



Year of study: 8

Subject and topic: Biology, Competition in animals and plants

Tags: In science and technology, On my own

Salary: £22,000 to £30,000 depending on location, age and experience.

Qualifications: National Careers Service – Pest control technician  
[nationalcareers.service.gov.uk/job-profiles/pest-control-technician](https://nationalcareers.service.gov.uk/job-profiles/pest-control-technician)

The British Pest Control Association – Careers  
[bpca.org.uk/careers](https://bpca.org.uk/careers)

Employers: BPCA – Pest Control Jobs and Careers with BPCA  
[bpca.org.uk/jobs](https://bpca.org.uk/jobs)

Rentokil are global specialists in pest control with a large presence in the UK. There are also numerous more localised pest control organisations.  
[rentokil.co.uk](https://rentokil.co.uk)

Videos: Rentokil – What it's like to work as a pest control technician  
[youtube.com/watch?v=4mN8T\\_8vFY0](https://youtube.com/watch?v=4mN8T_8vFY0)

Resources: Pest World – Fun Interactive Games for Kids Featuring Insects, Bugs, & Other Pests  
[pestworldforkids.org/for-kids/games](https://pestworldforkids.org/for-kids/games)

[Return to table of roles](#)

## Overview of role:

### Biomass farmer, engineer or plant technician

Humans have always relied on plants for fuel. It's only in the last 200 years that we've utilised fossil sources to provide our heating needs, drive our industrial processes, give us light and power our vehicles.

Some energy crops are familiar such as oilseed rape and sugar beet for transport fuels, while others are less so, such as willows and poplars, grown as short rotation coppice, and miscanthus for heat and electricity.



Year of study: 8

Subject and topic: Chemistry, Energy and Reactions or Global warming and climate change

Tags: In a team, In science and technology, With plants and crops, Indoors, To help the environment

Salary: A biomass plant technician would start on around £27,000, depending on location and experience. A biofuel farmer's income would be comparable to that of an arable farmer or farm manager (crops).  
[tiah.org/w/farm-manager-crops](http://tiah.org/w/farm-manager-crops)

Qualifications: Entry requirements for engineer/technician jobs in this new field would be comparable to that of an Electricity generation worker  
National Careers Service, Electricity generation worker  
[nationalcareers.service.gov.uk/job-profiles/electricity-generation-worker](http://nationalcareers.service.gov.uk/job-profiles/electricity-generation-worker)

Employers: New Energy Farms  
[newenergyfarms.com](http://newenergyfarms.com)  
You can find more examples of organisations which produce energy from farmed crops on the Crops for Energy page on Biomass energy  
[crops4energy.co.uk/biomass-energy](http://crops4energy.co.uk/biomass-energy)

Videos: Drax – How biomass helps to power the UK [episode 5]  
[youtube.com/watch?v=fK0Uij9m1C4](https://youtube.com/watch?v=fK0Uij9m1C4)  
Terravesta Miscanthus Hybrids – Virtual Miscanthus Farm Walk  
[youtube.com/watch?v=6cKrFxWG8Is](https://youtube.com/watch?v=6cKrFxWG8Is)

Resources: National Agriculture in the Classroom – Fueling Up for a Career in Biofuel  
[agclassroom.org/matrix/lesson/614](http://agclassroom.org/matrix/lesson/614)  
A US site but has some interesting facts and figures around the use of biofuels.  
BBSRC – Practical Biofuel Activities for School Engagement and Outreach  
[build-a-biogas-plant.com/PDF/BioscienceFuture\\_practical-biofuel-activities-complete.PDF](http://build-a-biogas-plant.com/PDF/BioscienceFuture_practical-biofuel-activities-complete.PDF)  
A wealth of extension activities surrounding the use of biofuels.

[Return to table of roles](#)

## Overview of role:

### Rural surveyor

Rural surveyors value the assets of farms and estates, advise clients on legal and tax issues, and plan and develop land use.

They require good mathematical, ecological and geographical knowledge to advise land owners.



**Year of study:** 8

**Subject and topic:** Biology, Biodiversity

**Tags:** On my own, Outdoors

**Salary:** £22,000 to £43,000 per year, depending on location and experience.

**Qualifications:** National Careers Service – Rural surveyor  
[nationalcareers.service.gov.uk/job-profiles/rural-surveyor](https://nationalcareers.service.gov.uk/job-profiles/rural-surveyor)

Moulton College – Rural surveyor  
[moulton.ac.uk/careers/rural-surveyor#:~:text=Rural%20surveyors%20value%20the%20assets,plan%20and%20develop%20land%20use](https://moulton.ac.uk/careers/rural-surveyor#:~:text=Rural%20surveyors%20value%20the%20assets,plan%20and%20develop%20land%20use)

**Employers:** National Trust – Vacancies  
[careers.nationaltrust.org.uk](https://careers.nationaltrust.org.uk)

Land Map Surveys – Chartered Surveyors For the UK  
[landmapsurveys.co.uk](https://landmapsurveys.co.uk)

**Videos:** National Trust Jobs – Senior Rural Surveyor  
[youtube.com/watch?v=unpAPoNEBdo](https://youtube.com/watch?v=unpAPoNEBdo)

SRUC Aberdeen – Day in the life of a rural surveyor in Scotland  
[youtube.com/watch?v=4ZQXyB61cQw](https://youtube.com/watch?v=4ZQXyB61cQw)

**Resources:** Royal Institution of Chartered Surveyors (RICS)  
[rics.org](https://rics.org)

Surveyors have their own professional body, the Royal Institution of Chartered Surveyors (RICS), a leading professional body working in the public interest to advance knowledge, uphold standards, and inspire current and future professionals.

[Return to table of roles](#)

## Overview of role:

### Vertical farming operative

Vertical farming means growing crops indoors, in vertically stacked, soil-free layers.

The highly controlled and protected nature of this type of growing means crops are produced all year round, in greater quantities and independently of normal growing seasons.



**Year of study:** 8 and 9

**Subject and topic:** Biology, Photosynthesis

**Tags:** In a team, In science and technology, With plants and crops, Indoors, To help the environment

**Salary:** From £20,000 to 30,000 depending on location and experience with potential to move into management with training and continuous professional development.

**Qualifications:** TIAH – Horticultural operative  
[tiah.org/w/horticultural-production-operative-vertical-farming](https://tiah.org/w/horticultural-production-operative-vertical-farming)

**Employers:** Grow Up Farms  
[growupfarms.co.uk](https://growupfarms.co.uk)

Fischer Farms – The Future of Farming  
[fischerfarms.co.uk](https://fischerfarms.co.uk)  
Great website for detailed images of what the inside of a vertical farm looks like

**Videos:** Foodverge – 3 different types of vertical farms  
[youtube.com/watch?v=suYcri3Fzcl](https://youtube.com/watch?v=suYcri3Fzcl)

**Resources:** BBC Future – How far can vertical farming go?  
[bbc.com/future/article/20230106-what-if-all-our-food-was-grown-in-indoor-vertical-farms](https://bbc.com/future/article/20230106-what-if-all-our-food-was-grown-in-indoor-vertical-farms)

Skills Miner Vertical Farming – Education with Minecraft  
[enspire.enginuity.org/skills-miner-vertical-farming](https://enspire.enginuity.org/skills-miner-vertical-farming)

[Return to table of roles](#)

## Overview of role:

### Agronomist

If you understand how crop plants use light, water and carbon dioxide, imagine learning about all the other things they need to grow and using that knowledge to secure future food production!

Agronomists look at all aspects of crop nutrition, irrigation, positioning, and rotation to help make sure the harvest is productive, alongside land conservation. An essential part of their role is to consider crop production and the long-term environmental health of the land.



**Year of study:** 8 and 9

**Subject and topic:** Physics, Lightwaves

**Tags:** On my own, With plants and crops, In science and technology, To help the environment

**Salary:** An agronomist would start on around £20,000 with this figure rising to a top salary of about £65,000, depending on location and experience.

**Qualifications:** TIAH – Agronomist. Scroll to qualifications.  
[tiah.org/w/agronomist](https://tiah.org/w/agronomist)

**Employers:** As an agronomist, you have the opportunity to work in research, for a farming company, or with a distribution company. You may even want to establish your own business as an independent agronomist.

Hutchinsons  
[hutchinsons.co.uk](https://hutchinsons.co.uk)

Agrovista, Agronomy and Crop Protection Specialists  
[agrovista.co.uk](https://agrovista.co.uk)

**Videos:** TIAH – Agronomist  
[tiah.org/w/agronomist](https://tiah.org/w/agronomist)  
This profile contains a two-minute video about being a ‘crop vet’ at a large salads producer, the role can also apply to growing outside.

The Royal Horticultural Society – Careers in horticulture  
[rhs.org.uk/education-learning/careers-horticulture/agronomist](https://rhs.org.uk/education-learning/careers-horticulture/agronomist)

**Resources:** Bloom – What’s your plant power?  
[wearebloom.org](https://wearebloom.org)  
Bit of a wacky quiz that will put you in touch with all sorts of careers in plants!

Farmers 2050  
[farmers2050.com](https://farmers2050.com)  
Crop farming games.

[Return to table of roles](#)

## Overview of role:

### Vet

If you understand human physiology and systems, then you have a good grasp on how most animals we farm in the UK are put together and work!

You may wish to become a large animal vet and work with farmers to keep their herds and flocks in good health through treating illnesses and injury, administering vaccinations and managing reproductive health.



**Year of study:** 8 and 10

**Subject and topic:** Biology, Human organ systems and health

**Tags:** In a team, In science and technology, With animals

**Salary:** £30,000 to £50,000 depending on age, location and experience.

**Qualifications:** National Careers Service – Vet  
[nationalcareers.service.gov.uk/job-profiles/vet](https://nationalcareers.service.gov.uk/job-profiles/vet)

**Employers:** You can work as an independent vet, as part of a small team at a veterinary practice or for one of the larger organisations that employ vets such as:

Axe Valley Large Animal Vets  
[avlavets.co.uk](https://avlavets.co.uk)

Alnorthumbria Veterinary Group  
[alnorthumbriavets.co.uk](https://alnorthumbriavets.co.uk)

**Videos:** EIT Food – A Day in the Life – Farm vet  
[youtube.com/watch?v=xTLFniF\\_ioM](https://youtube.com/watch?v=xTLFniF_ioM)

**Resources:** Vet Set Go – Free Veterinarian Games for Kids  
[vetsetgo.com/games](https://vetsetgo.com/games)

[Return to table of roles](#)

## Overview of role:

### Vet nurse/Technician or Physiotherapist

If you understand human physiology and systems, then you have a good grasp on how most animals we farm in the UK are put together and work!

You may wish to become a large animal vet nurse or technician and work with farmers to keep their herds and flocks in good health through treating illnesses and injury, vaccinations and reproductive health.



Year of study: 8

Subject and topic: Biology, Human organ systems and health

Tags: In a team, In science and technology, With animals

Salary: Nurse £20,000 to £31,000 per year depending on age, location and experience.  
Physio £23,000 to £38,000 per year depending on age, location and experience.

Qualifications: National Careers Service – Veterinary nurse  
[nationalcareers.service.gov.uk/job-profiles/veterinary-nurse](https://nationalcareers.service.gov.uk/job-profiles/veterinary-nurse)  
National Careers service – Physiotherapist  
[nationalcareers.service.gov.uk/job-profiles/veterinary-physiotherapist](https://nationalcareers.service.gov.uk/job-profiles/veterinary-physiotherapist)

Employers: You can work as part of a small team at a veterinary practice or for one of the larger organisations that employ veterinary nurses or physios such as:

Axe Valley Large Animal Vets  
[avlavets.co.uk](https://avlavets.co.uk)

Alnorthumbria Veterinary Group  
[alnorthumbriavets.co.uk](https://alnorthumbriavets.co.uk)

Videos: St Georges Vet – Day in the life of a veterinary nurse  
[youtube.com/watch?v=l-E59LT7JQw](https://youtube.com/watch?v=l-E59LT7JQw)

Writtle University College – Your guide to veterinary physiotherapy  
[youtube.com/watch?v=VbL-otApHL8](https://youtube.com/watch?v=VbL-otApHL8)

Resources: Vet Set Go – Free veterinary games for kids  
[vetsetgo.com/games](https://vetsetgo.com/games)

[Return to table of roles](#)



## Overview of role:

### Tree surgeon/Arborist

Tree surgeons work in towns and the countryside, assessing tree health, removing branches, planting new stock and felling unsafe trees. Tree surgeons work in both rural and urban areas.



Year of study: 9

Subject and topic: Biology, Photosynthesis 2

Tags: (Usually) In a team, In engineering and machinery, With plants and crops

Salary: £21,000 to £35,000 depending on age, experience and location.

Qualifications: National Careers Service – Tree Surgeon  
[nationalcareers.service.gov.uk/job-profiles/tree-surgeon](https://nationalcareers.service.gov.uk/job-profiles/tree-surgeon)

Employers: Many tree surgeons are small local businesses but there are some larger organisations such as Tree Scape Northeast a fencing, decking and tree services organisation based in the North East of England.

Treescape Northeast  
[treescapenortheast.co.uk](https://treescapenortheast.co.uk)

Videos: Jennifer Cordingley, One of the UK's most dangerous jobs – Tree Surgery  
[youtube.com/watch?v=vvEov-DGz3Q](https://youtube.com/watch?v=vvEov-DGz3Q)

Country Girls UK – A Day In The Life Of A Tree Surgeon  
[youtube.com/watch?v=OeZWLGINgaA](https://youtube.com/watch?v=OeZWLGINgaA)  
Slightly longer video made in Association with Country Girls UK.

Resources: Start Up Donut – How to start up a tree surgeon business  
[startupdonut.co.uk/start-up-business-ideas/types-of-business/how-to-start-up-a-tree-surgeon-business](https://startupdonut.co.uk/start-up-business-ideas/types-of-business/how-to-start-up-a-tree-surgeon-business)

This website advises individuals on how to start up their own tree surgery business.

CPD Online – Health and Safety Guide for Tree Surgeons  
[cpdonline.co.uk/health-and-safety-guides/health-and-safety-guide-for-tree-surgeons](https://cpdonline.co.uk/health-and-safety-guides/health-and-safety-guide-for-tree-surgeons)  
For more information on safety and training for tree surgeons have a look at this site.

[Return to table of roles](#)

## Overview of role:

### Hedgelayer

Hedgelaying is a skill that has been practised for centuries. It has many regional variations in style and technique.

Hedgelaying is the process of partially cutting and then bending the stems of a line of shrubs or small trees, near ground level, without breaking them, so as to encourage them to produce new growth from the base and create a living 'farm animal proof fence'. Hedgelayers need to understand the internal structure of a plant's stem to carry out this technique effectively and keep the plant alive.



Year of study: 9

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Subject and topic: Biology, Photosynthesis 2

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Tags: In science and technology, With plants and crops, To help the environment

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Salary: Around £20,000 to £30,000 per year depending on age, experience and location.

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Qualifications: Perhaps more of a skill that makes up a larger job in arboriculture, but the National Hedgelaying Society has information on training.

National Hedgelaying Society  
[hedgelaying.org.uk](http://hedgelaying.org.uk)

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Employers: See above.

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Videos: South Gloucestershire Council – Hedge laying in Yate Common  
[youtube.com/watch?v=MC-fMSXEi0o](https://www.youtube.com/watch?v=MC-fMSXEi0o)

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Resources: National Hedgelaying Society – Regional styles of hedgelaying  
[hedgelaying.org.uk/pg/info/styles.aspx](http://hedgelaying.org.uk/pg/info/styles.aspx)  
There is a national hedge laying championship, which featured on a 2023 episode of Clarkson's Farm, and 30 different styles of hedge laying practised around the UK!

[Return to table of roles](#)

## Overview of role:

### Plant breeding technician

A plant breeding technician works with plant genetics to improve the quality and performance of existing agricultural and horticultural crops.

They also work to create new varieties of plants in response to changing environmental or commercial conditions.



Year of study: 9

Subject and topic: Chemistry, Earth and the Atmosphere 2

Tags: In science and technology, With plants and crops, To help the environment

Salary: £20,000 to £30,000 depending on age, experience and location.

Qualifications: Prospects – Plant breeder geneticist  
[prospects.ac.uk/job-profiles/plant-breeder-geneticist#qualifications](https://prospects.ac.uk/job-profiles/plant-breeder-geneticist#qualifications)

Employers: NIAB – The National Institute of Agricultural Botany, Welcome to NIAB  
[niab.com/welcome-niab](https://niab.com/welcome-niab)  
NIAB is the UK's fastest growing Crop research organisation with several sites in England.

KWS UK – Seeding the Future  
[kws.com/gb/en](https://kws.com/gb/en)  
KWS is a large commercial crop breeding company with employment opportunities in the UK.

Videos: Countryside Classroom – Teaching resources  
[countrysideclassroom.org.uk/resources/1157](https://countrysideclassroom.org.uk/resources/1157)

Resources: New Scientist Jobs – What does an assistant breeder (oilseed rape) do?  
[jobs.newscientist.com/article/what-does-a-assistant-breeder-oilseed-rape-do-](https://jobs.newscientist.com/article/what-does-a-assistant-breeder-oilseed-rape-do-)

Science and Plants for Schools (SAPS) – Selective breeding and genetic engineering resources  
[saps.org.uk/teaching-resources/resources/1458/selective-breeding-and-genetic-engineering/](https://saps.org.uk/teaching-resources/resources/1458/selective-breeding-and-genetic-engineering/)

[Return to table of roles](#)

## Overview of role:

### Equine cardiologist

This role is usually performed by a vet with a special interest in cardiology (the study of the heart and its diseases/abnormalities).

Many horses are performance athletes (racehorses or eventers etc.) and an equine cardiologist can monitor, diagnose and treat issues with a horse's heart.



Year of study: 9

Subject and topic: Biology, Cells and organisation – The heart

Tags: With animals, In a team, In science and technology

Salary: Veterinarians can command a starting salary of around £35,000 with higher wages being achieved depending on age, experience and location.

Qualifications: National Careers Service – Vet  
[nationalcareers.service.gov.uk/job-profiles/vet](https://nationalcareers.service.gov.uk/job-profiles/vet)

Employers: Avondale Equine Vet Practice  
[avonvaleequine.co.uk](https://avonvaleequine.co.uk)  
Rossdales Veterinary Surgeons  
[rossdales.com](https://rossdales.com)

Videos: The University of Edinburgh – Cardiology  
[ed.ac.uk/vet/services/equine-services/hospital/medicine/cardiology](https://ed.ac.uk/vet/services/equine-services/hospital/medicine/cardiology)  
This website has a short video of what a sonographer sees when they're looking at a horse's heart.

FEI – The Liphook Equine Hospital | RIDE presented by Longines  
[youtube.com/watch?v=SaEk4AYjs08&t=16s](https://youtube.com/watch?v=SaEk4AYjs08&t=16s)

Resources: The Dick Vet – Equine Cardio Rap  
[youtube.com/watch?v=Syxxsf\\_HWRw](https://youtube.com/watch?v=Syxxsf_HWRw)  
This video explains the four sounds that you would hear from a horse's heart as it contracts and relaxes.

[Return to table of roles](#)

## Overview of role:

### Fermentation and brewing roles (Diversification projects)

Many farmers end up with waste or by-products when growing their crops. As profit margins can be tight on farms, many farmers have found ways to use their by-products to make something else they can sell.

This is known as diversification and a common example is brewing or fermenting to make alcoholic drinks, such as beer, wine or spirits.



Year of study: 9

Subject and topic: Distillation and fractional distillation (also fermentation)

Tags: With plants and crops, In science and technology, In engineering and machinery

Salary: These types of activities are not a main role but a way in which a farm business may increase profitability. Here is an example of where a good understanding of science will stand a farmer in good stead!

Qualifications: Some farm businesses have gone the 'whole hog' and converted their businesses into vineyards and there are higher education courses to support this.

TIAH – Vineyard manager  
[tiah.org/w/vineyard-viticulture-manager](https://tiah.org/w/vineyard-viticulture-manager)

TIAH – Vineyard operative  
[tiah.org/w/vineyard-viticulture-operative](https://tiah.org/w/vineyard-viticulture-operative)

Employers: Colwith Farm Distillery  
[colwithfarmdistillery.co.uk](https://colwithfarmdistillery.co.uk)  
Farm businesses – Mainly small with rare employment opportunities but an example of out of the box thinking that goes on in the industry.

Videos: Colwith Farm Distillery  
[colwithfarmdistillery.co.uk](https://colwithfarmdistillery.co.uk)  
Two-minute video about how one Cornwall farming family have developed a way of turning potatoes into award winning spirits through the process of distillation.

Resources: Cognito – GCSE Chemistry - Fractional Distillation and Simple Distillation #50  
[youtube.com/watch?v=eQlnHr9g6lo](https://youtube.com/watch?v=eQlnHr9g6lo)  
You might recognise these two techniques from your chemistry lessons. This is the basis of what people do when making spirits for human consumption through distillation.

[Return to table of roles](#)

## Overview of role:

### Fertiliser/Pesticide manufacturer

This is a general role that feeds into incredibly important areas of agriculture and horticulture. Growing sufficient produce to support a rising population usually requires fertilisers and pesticides for feeding and treating crops.

While some chemicals can cause environmental harm when developed and used incorrectly, modern chemists supporting the industry are acutely aware of the need to produce substances that promote crop growth without damaging the environment.



Year of study: 9

Subject and topic: Chemistry, Atoms and the periodic table (Reactions of group 1, specifically potassium as part of the important plant nutrition elements NPK)

Tags: To help the environment, In a team, In science and technology

Salary: Analytical chemist (£26,000 to £40,000) or Chemical engineer (£30,000 to £65,000) depending on age, experience and location.

Qualifications: National Careers Service – Analytical chemist  
[nationalcareers.service.gov.uk/job-profiles/chemist](https://nationalcareers.service.gov.uk/job-profiles/chemist)  
National Careers Service – Chemical engineer  
[nationalcareers.service.gov.uk/job-profiles/chemical-engineer](https://nationalcareers.service.gov.uk/job-profiles/chemical-engineer)

Employers: Agrii – Careers  
[agrii.co.uk/careers](https://agrii.co.uk/careers)  
Monarch Agri  
[monarchchemicals.co.uk](https://monarchchemicals.co.uk)

Videos: FuseSchool – Plant Nutrition  
[youtube.com/watch?v=w\\_x-WDdQdxl](https://youtube.com/watch?v=w_x-WDdQdxl)  
This video explains why plants require additional elements to support their growth. Some of these will come from chemicals and some can come from other forms, such as manure spreading.

Resources: STEM learning – Investigating whether plants grow better with fertiliser  
[stem.org.uk/elibrary/resource/34248](https://stem.org.uk/elibrary/resource/34248)  
RHS Gardening – How plants absorb nutrients  
[rhs.org.uk/advice/understanding-plants/how-plants-absorb-nutrients](https://rhs.org.uk/advice/understanding-plants/how-plants-absorb-nutrients)

NOTE – Chemical engineers develop ways to turn raw materials into everyday products, while Analytical chemists investigate the chemical makeup of substances and work out how they behave under different conditions.

[Return to table of roles](#)

## Overview of role:

### Calf rearer

There are few greater examples of selective breeding than the dairy cow. Calf rearing is an important part of dairy farming as the way a newborn calf is managed has a direct impact on how productive the animal will be for beef or milk.

A successful calf rearer understands all the basic principles such as the best nutrition for growth, reducing stress, good housing and care. Calf rearers need excellent observation skills. They must look out for problems and prevent health issues in young animals.



Year of study: 10

Subject and topic: Biology, Inheritance, Selection and evolution

Tags: In a team, In science and technology, With animals

Salary: £14,000 to 23,000 depending on age, experience and location.

Qualifications: Calf rearer – TIAH  
[tiah.org/w/calf-rearer](http://tiah.org/w/calf-rearer)

Employers: This role tends to exist on its own on larger dairy farm businesses or as part of a wider role on smaller farms.

Recruitment may be local via social media pages although roles often come up on job sites such as Indeed or via specialist farming recruitment agencies such as Real Success or LKL Services.

Indeed  
[uk.indeed.com/q-calf-rearing-jobs-jobs.html](http://uk.indeed.com/q-calf-rearing-jobs-jobs.html)

Real Success  
[real-success.co.uk/jobs-in-farming/?jq=cald+rearer](http://real-success.co.uk/jobs-in-farming/?jq=cald+rearer)

LKL Services  
[lklservices.co.uk](http://lklservices.co.uk)

Videos: Calf rearer – TIAH  
[tiah.org/w/calf-rearer](http://tiah.org/w/calf-rearer)

Resources: Countryside Classroom – Dairy Farming Teaching Resources  
[countrysideclassroom.org.uk/resources/1437](http://countrysideclassroom.org.uk/resources/1437)  
There is a great little ordering exercise about the early weeks of a calf's life on slides four and five of the PowerPoint that can be found from this link.

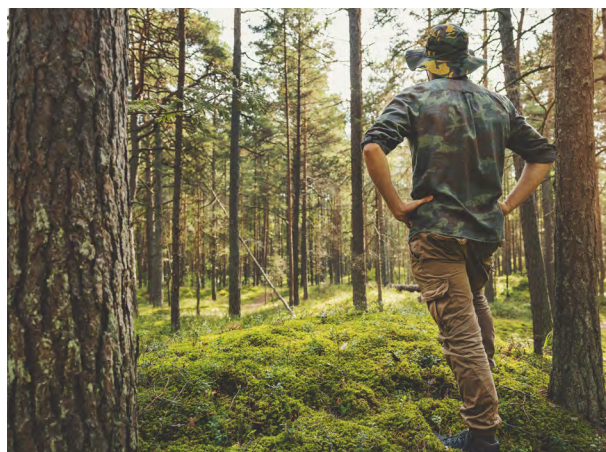
[Return to table of roles](#)

## Overview of role:

### Forest or Woodland manager

The role requires the holder to manage an area of woodland or forest. This will involve achieving recreational, timber production and conservation related goals.

Balancing the demands of these three areas can be challenging, especially if they appear to be in competition.



Year of study: 10

Subject and topic: Biology, Ecology

Tags: In a team, With plants and crops, In engineering and machinery, To help the environment

Salary: £25,000 to £60,000 depending on age, experience, qualifications and location.

Qualifications: Prospects – Forest/woodland manager  
[prospects.ac.uk/job-profiles/forest-woodland-manager](https://prospects.ac.uk/job-profiles/forest-woodland-manager)

Employers: High profile employers include:

Forestry England  
[forestryengland.uk](https://forestryengland.uk)

National Trust England  
[nationaltrust.org.uk](https://nationaltrust.org.uk)

Videos: Forestry Commission – Woodland management matters  
[youtube.com/watch?v=vFH61Lo1j2w](https://youtube.com/watch?v=vFH61Lo1j2w)  
A two-minute introduction on why forest need to be managed and what's involved.

Resources: West Midlands Combined Authority – Virtual forest  
[wmvirtualforest.co.uk](https://wmvirtualforest.co.uk)  
This takes you to a great activity in the West Midlands where people were encouraged to plant trees and then record them as the West Midlands 'Virtual forest'. Are there any similar activities you could get involved in near you?

[Return to table of roles](#)



## Overview of role:

### Fish farm manager

This role is part of the aquaculture industry and involves breeding, hatching and raising fish. To manage a fish farm, you need to have a sound understanding of science, business and management skills.

This is a form of intensive farming and fish farms are located all around the United Kingdom.



**Year of study:** 10

**Subject and topic:** Biology, Ecology (Separate sciences content)

**Tags:** In a team, In science and technology, With animals

**Salary:** New starters on a fish farm can expect to earn around £15,000, with salaries rising to £55,000 depending on age, experience and location.

**Qualifications:** Prospects, Fish farm manager  
[prospects.ac.uk/job-profiles/fish-farm-manager](https://prospects.ac.uk/job-profiles/fish-farm-manager)

**Employers:** Kames Fisheries – Work For Us  
[kames.co.uk/careers](https://kames.co.uk/careers)

Marine Harvest  
[marineharvestseafood.com](https://marineharvestseafood.com)

**Videos:** Lantra Scotland – Quick guide to a career in aquaculture  
[youtube.com/watch?v=T25bTsMpy4c](https://youtube.com/watch?v=T25bTsMpy4c)

Financial Times – Farmed Fish of the Future?  
[ft.com/video/5854b997-a1b1-47e0-b900-598cefb509f4](https://ft.com/video/5854b997-a1b1-47e0-b900-598cefb509f4)  
A longer description of the industry produced by the Financial Times (11 mins)

**Resources:** Twinkl – Fish Farming Research Map (teacher made)  
[twinkl.co.uk/resource/fish-farming-research-map-cfe-ss-79?sign\\_in=1](https://twinkl.co.uk/resource/fish-farming-research-map-cfe-ss-79?sign_in=1)  
There is a wealth of fish farming resources and activities, including discussion on the need for fish farms to offset overfishing, as free downloadable resources if you sign up to Twinkl.

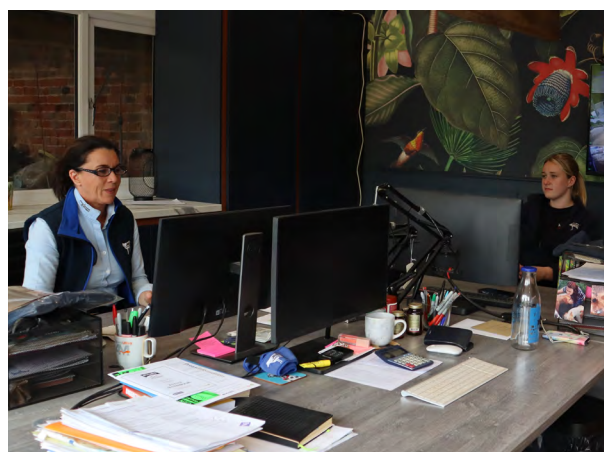
[Return to table of roles](#)

## Overview of role:

### Farm manager

The farm manager is responsible for running a productive and sustainable livestock business that meets animal welfare and environmental standards.

It's a challenging and rewarding role where you'll need to make decisions to develop your business while producing high-quality, safe food.



Year of study: 10

Subject and topic: Biology, Inheritance, Variation and evolution or Ecology (separate sciences content)

Tags: In a team, In science and technology, To help the environment, In engineering and machinery, With animals, With crops and plants

Salary: Farm managers generally earn £30,000 to 50,000 depending on age, experience and location. They may also have a house and a vehicle as part of their package.

Qualifications: There are many different routes to becoming a farm manager but most role holders study agriculture or a related subject for further education.

TIAH – Farm manager (livestock). Scroll to qualifications.  
[tiah.org/w/farm-manager-livestock](https://tiah.org/w/farm-manager-livestock)

Employers: Large estates, along with other major landowners such as the National Trust and food production companies like Burgess Farms in the East of England, often hire farm managers

Another employment option is to manage one of the farms at agricultural colleges or universities based around the UK.

National Trust – Vacancies  
[careers.nationaltrust.org.uk/OA\\_HTML/a/#/vacancies](https://careers.nationaltrust.org.uk/OA_HTML/a/#/vacancies)

Burgess Farms – Career opportunities  
[burgessfarms.co.uk/career-opportunities](https://burgessfarms.co.uk/career-opportunities)

National Land Based College – Colleges and Universities  
[nlbc.uk/partners/members](https://nlbc.uk/partners/members)

Videos: TIAH –Job profiles  
[tiah.org/job-profiles](https://tiah.org/job-profiles)  
There are three Farm manager role profiles, some with videos on The Institute for Agriculture and Horticulture's (TIAH) website

Resources: Numerous free and paid for farming simulation games are available which are very popular in and out of the industry. This includes a growing game produced as part of the Minecraft suite.

Minecraft Help, A Beginner's Guide to Farming in Minecraft  
[help.minecraft.net/hc/en-us/articles/360046311411-Minecraft-Farming-101](https://help.minecraft.net/hc/en-us/articles/360046311411-Minecraft-Farming-101)

[Return to table of roles](#)

## Overview of role:

### Pharmacologist (vaccines etc)

This could in fact cover two different but related roles. A pharmacologist might be involved in the development of medicines and vaccines for use within the farming industry, but also the growing of 'pharmaceutical crop' products to be used as medications outside the industry.

Farmers rely on the development of organism specific vaccines and medications to keep their different agricultural species healthy and productive.



Year of study: 10

Subject and topic: Biology, Infection and response

Tags: In a team, In science and technology, With plants and crops

Salary: Starting with research assistants at £24,000 to £28,000, salaries can be as high as £40,000 for post-doctoral researchers and pay will also depend on age, experience and location.

Qualifications: National Careers Service, Pharmacologist  
[nationalcareers.service.gov.uk/job-profiles/pharmacologist](https://nationalcareers.service.gov.uk/job-profiles/pharmacologist)

Employers: Pharmaceutical development companies include:

Bayer  
[bayer.co.uk/en](https://www.bayer.co.uk/en)

Norbrook  
[norbrook.com/join-us](https://www.norbrook.com/join-us)

Videos: FuseSchool – Developing new drugs  
[youtube.com/watch?v=\\_hjBfbMuvPA](https://www.youtube.com/watch?v=_hjBfbMuvPA)  
Generalised video about developing drugs/medicines but it covers the process quite well and talks about animal testing.

BBC Bitesize – The development and testing of drugs  
[bbc.co.uk/bitesize/guides/z8fkmsg/revision/10](https://www.bbc.co.uk/bitesize/guides/z8fkmsg/revision/10)  
Another nice bit of content, including a video from BBC Bitesize – The development and testing of new drugs – Treating, curing and preventing disease.

Resources: STEM Learning – Discovery and development of new medicines  
[stem.org.uk/resources/community/collection/155999/discovery-and-development-new-medicines](https://www.stem.org.uk/resources/community/collection/155999/discovery-and-development-new-medicines)  
Collection of STEM activities relating to the development of new medicines.

[Return to table of roles](#)

## Overview of role:

### Tractor driver

A tractor/machinery driver works on farms that produce crops such as cereals, fruit, or vegetables. As a tractor driver, you'll be responsible for a wide variety of cultivation tasks, such as preparing the land, sowing seeds or seedlings, harvesting, and storing crops.

It can also be a part of a larger role on a farm or growing site. Many people with this role are contractors who do this and other short-term contracts for multiple employers.



Year of study: 10

Subject and topic: Physics, Conservation and dissipation of energy

Tags: On my own, In science and technology, In engineering and machinery

Salary: A full-time salary starts at around £19,000. On a farm with harvest overtime hours, this could rise to £40,000 for those qualified as sprayer operators. Salary also depends on age, experience and location.

Qualifications: TIAH – Tractor driver  
[tiah.org/w/tractor-driver](http://tiah.org/w/tractor-driver)

Employers: Real Success – Agricultural recruitment  
[real-success.co.uk](http://real-success.co.uk)

Videos: TIAH – Tractor driver  
[tiah.org/w/tractor-driver](http://tiah.org/w/tractor-driver)  
This profile has a video about the work of an agricultural contractor who speaks about working with machinery such as tractors.

Monarch Tractor – 360° Virtual Reality Ride Along  
[youtube.com/watch?v=UEh5WT3jewE](https://youtube.com/watch?v=UEh5WT3jewE)  
Virtual ride alone on a tractor

Resources: The Association of Agricultural Contractors  
[naac.co.uk](http://naac.co.uk)

[Return to table of roles](#)

## Overview of role:

### Environmental officer/Inspector

An Environmental officer plays an essential role in ensuring that organisations comply with environmental laws and regulations, while also working towards minimising their impact on the environment.

This position involves a blend of fieldwork, policy development, and collaboration with various departments to implement sustainable practices.



**Year of study:** 10

**Subject and topic:** Biology, Infections and Response (Animal health and welfare)

**Tags:** In a team and On my own, In science and technology, To help the environment

**Salary:** Depending on age, experience and location.

**Qualifications:** Environment Agency – Working for EA  
[gov.uk/government/organisations/environment-agency/about/recruitment](https://www.gov.uk/government/organisations/environment-agency/about/recruitment)  
Information on the degree level entry, apprenticeships and paid internships opportunities.

**Employers:** The Environment Agency – Improving environmental performance through our farming inspections  
[environmentagency.blog.gov.uk/2023/07/20/improving-environmental-performance-through-our-farming-inspections/](https://environmentagency.blog.gov.uk/2023/07/20/improving-environmental-performance-through-our-farming-inspections/)

Animal and Plant Health Agency – Working for APHA  
[gov.uk/government/organisations/animal-and-plant-health-agency/about/recruitment](https://www.gov.uk/government/organisations/animal-and-plant-health-agency/about/recruitment)

Environmental Compliance Experts  
[ecasworld.com](https://www.ecasworld.com)  
Includes a short video on their work, near the top of the page.

**Videos:** See above

**Resources:** Environment Agency – How the EA works  
[gov.uk/government/organisations/environment-agency/about](https://www.gov.uk/government/organisations/environment-agency/about)

[Return to table of roles](#)