T-LEVELS | IfATE Institute for Apprenticeships and Technical Education

T Level Technical Qualification in Agriculture Land Management and Production: Crop, Woodland and Horticulture (8717-31)

8717-035 Employer-Set Project Exemplar – A Grade Summer 2024

City & Guilds

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Introduction

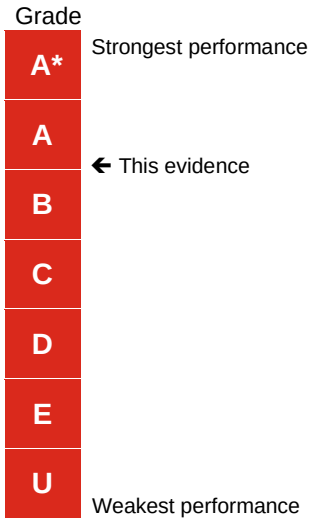
Summer 2024 Results

This document is aimed at providers and learners to help understand the standard that was required in the summer 2024 assessment series to achieve an A grade for the 8717-035 Crop, Woodland and Horticulture Employer-Set Project (ESP).

Providers and learners may wish to use it to benchmark the performance in formative assessment against this to help understand a potential grade that may be achieved if a learner was to attempt the next summative assessment series.

The Employer-Set Project is graded A* to E and Unclassified.

The exemplar evidence provided for the A grade displays the holistic standard required across the tasks to achieve the A grade boundary for the summer 2024 series. A slightly weaker performance would have resulted in a B grade result being issued.



The Employer-Set Project brief and tasks can be downloaded from here.

Important things to note:

- We discussed the approach to standard setting/maintaining with Ofqual and the other awarding organisations before awarding this year. We have agreed to take account of the newness of qualifications in how we award this year to recognise that students and teachers are less familiar with the assessments (Grading arrangements for VTQs and Technical Qualifications within T Levels in the academic year 2023 to 2024), whilst also recognising the standards required for these qualifications.

- The exemplar evidence presented, as a whole, was sufficient to achieve the A grade. However, performance across the tasks may vary (i.e. some tasks completed to a higher/lower standard than an A grade).

Marking of this Employer-Set Project is by task and Assessment Objective, below is a summary of these along with the mark achieved by the evidence presented and the maximum mark available for each aspect.

Task	Assessment Objectives	Mark achieved	Max mark available
Task 1 Research	- AO1 Plan approach to meeting the project brief - AO3 Select relevant techniques and resources to meet the brief	5	6
	- AO2b Apply core skills as appropriate	5	6
Task 2 Report	- AO1 Plan approach to meeting the project brief - AO3 Select relevant techniques and resources to meet the brief	7	9
	- AO2a Apply core knowledge as appropriate	5	9
	- AO2b Apply core skills as appropriate	6	9
	- AO4a Use maths skills as appropriate	3	3
Task 3 Plan	- AO1 Plan approach to meeting the project brief - AO3 Select relevant techniques and resources to meet the brief	5	9
	- AO2a Apply core knowledge as appropriate	3	6
	- AO2b Apply core skills as appropriate	4	6
	- AO4b Use English skills as appropriate	2	3
Task 4	Evidence generated for Task 4 is not marked, it is utilised in Task 5		
Task 5 Evaluate and present	- AO2a Apply core knowledge as appropriate - AO2b Apply core skills as appropriate	8	9
	- AO5a Realise a project outcome - AO5b Review how well the outcome meets the brief	9	12
	- AO4c Use digital skills as appropriate	2	3

Task 1 Research

Assessment number (eg 1234-033)	8717-035
Assessment title	Employer-Set Project

Candidate name	<first name> <surname>
City & Guilds candidate No.	ABC1234

Provider name	<provider name>
City & Guilds provider No.	999999a

Task(s)	1
Evidence title / description	Research action plan Research notes List of references
Date submitted by candidate	DD/MM/YY

Research Action Plan

Candidate Name	Candidate Number
<first name> <surname>	ABC1234
Provider Name	**Provider Number**
<provider name>	999999a

Goals/Objectives	Topic	Resources/sources of information	Search criteria	Timeline
1. Learn how to prevent or stop the spread.	Pests and diseases, Biosecurity threats	Google classroom General knowledge from myself	Pests and disease	1 hour
2. Correct practice is used.	Preventing crops from diseases	Google chrome	Disease, how to look for diseases	40 mins
3. Plant passports and quarantine.	Stop the spread of non-native plants	Google chrome	Plant passport	30 mins
4. Legislation is taught.	Make aware to the public about biosecurity measures	Google chrome	Legislation	30 mins
5. Correct legislation	Start recording the best biosecurity practice	Google chrome	legislation	30 mins

6. Waste management and techniques.	Disposing of waste material properly.	Google chrome	Disposal of waste safely	45 mins
7. Making sure no diseases are passed through the yard at any time.	Heavy machinery being moved out during harvest.	Knowledge and chrome	Pests diseases machinery passing through	50 mins
8. Risks and responsibilities of following biosecurity rules and regulations	Rules and regulations	Google chrome	Regulations, risks	30 mins Spent rest of the time checking spelling and editing.

Research notes

Biosecurity – Set of precautions that aim to help prevent the intro and overall spread of harmful organisms.

1. **Pests and diseases**

Diseases – If a disease like ash die back (Hymenoscyphus fraxineus) is spread around a woodland in the estate eventually the whole woodland will end up getting it this is why around the estate for biosecurity measures someone should be going around checking for any disease in the trees or in plants or crops. If a disease is present, they should act fast and try and get it sorted and disposed of clean and properly by professionals. To allow this to happen they would have to make sure they sanitary fell which is where all of the equipment they use is very well cleaned before and after use to allow that the next tree they cut there to going to transfer any diseases through. This would be an example of industry best practice. This helps stop the spread of diseases and increases the amount of biosecurity in the estate. When disposed of they need to make sure no traces of die back were left behind as if some woodchip is left and then the public walk over it, they can transfer the disease to other trees around, they also need to make sure they have cleaned up well so no birds pick the sticks up and move it around the estate. Pests can be a huge problem within an estate due to them eating crops, damaging plants or spreading more diseases and damaging or killing trees. They also comprise biosecurity within the estate. They are also dangerous to humans as well as nature as they can spread diseases. Pests can also be a problem when planting crops as they eat the seeds for food so another problem is the estate will have to pay for a hunter or bird scares to get them away.

2. **Preventing plants/crops from diseases around the estate**

If plants around the estate get diseases and it spreads wide and through the crops this would be a disaster, due to them probably not being able to be saved. Some ways to identify that a crop has a disease are malfunctions/ abnormal growth of shoots. Different colour leaves and flowers, vein clearing dwarfism and many more. To help prevent this from happening the estate could have cleaning set ups around the farm to make sure they are not transferring diseases from their own machinery, making sure that their chemical store is clean and all the chemicals are up to date to make sure that the chemicals are not going off or end up killing the plants. Also need to make sure that they spray and look after the crops

and protect the crops against any unwanted pests. They could also make sure that the crop rotation is correct to make sure that the soil has the correct nutrients to grow fully.

3. **Stopping the spread of non-native species**

On the estate at the moment, they receive plants on site and either sell them or plant them straight away. This is a key issue because non native species if they are bought over to the UK, you can receive a huge fine and can go to prison as well. If they do come over and grow, they spread rapidly due to wind and getting the seeds caught on animals then drop of in a different location and they grow again. They can also be spread by water and cars and so on. If they are also harmful non-native species, it's even worse for the planet due it may be killing off other species. A way of making sure that the plant material is native to the UK is to make sure you buy It from a trusted company and make sure that it is professionally made. You also should quarantine the plant material as well in case it has any other harmful diseases and should always look at the plant passport (which is a document that has lots of key information of that plant on it) to be sure that the plant is safe to plant. The estate should also make sure that the plant material they sell they need to quarantine as well to make sure that they are doing it properly. They also need to have a clean storage shed not near a harmful waste skip as a disease could easily spread to the storage shed and ruin the plant material.

4. **Making the public aware of biosecurity**

At the moment there are no signs for the public to know that they are biosecurity threats but if the public are aware of biosecurity and walk around the estate it would make it a safer place due to the spread of disease maybe less as some people may change their ways and be more cautious of biosecurity. A way the estate could make them aware is signs/ posters about biosecurity and could also have dip boot stations around the fields to reinsure that the public have clean boots and wont spread anything around the farm. The estate could also ask members of the public to do some training around biosecurity to allow more people to be more aware.

5. **Recording biosecurity around the estate**

To allow that the estate doesn't get Defra (department for environment, food and rural affairs) called on them the estate would need to record their biosecurity measures they have in place and what regulation or legislation they have going on. They would need to assign a

biosecurity officer to take control and will have to learn legislation like. The plant health legislation. “Plant health legislation allows and controls imports and movement of certain plants, organic matter such as soil or dirt, seeds and certain plant products like fruit, potatoes, flowers, veg and so on”. Having a biosecurity officer allows the estate to know that they are up to date on their biosecurity.

6. **Disposal of waste material**

At the moment the estate is very poor at disposing of their waste correctly, they chuck all of there waste in a skip and isn’t disposed of properly! They should make sure especially if the waste is hazardous that it isn’t next to a footpath as it could be hazardous to health and that comes under COSHH. If it is hazardous, they need to make sure that the waste is disposed of by professionals and checked regular, they also need to make sure that it is out of the way and kept locked so nobody can chuck any normal waste in there. Also, when transporting the waste, they need to be careful so they don’t loose any of it as if they do and it spills onto a field it can kill of a crop if the waste is harmful. To allow the estate to make sure it is done properly they will have to identify the type of waste. Also, once the waste has been emptied the estate every time should go and clean it out to allow it to be safe and they should do this wearing correct PPE of masks, one time use overalls welly boots and google to allow no bad substances are going to enter your body. Another waste material biosecurity risk in the estate is the arable crop cleaning operation, it gets dumped in the corner of a field, this is terrible because if the waste Is hazardous, it could easily seek through into the soil and kill any crop on that field.

7. **Heavy machine movement on the estate**

Movement of heavy machinery on and off the estate will be a huge biosecurity risk as when they come back from the fields, they may have ploughed through some soil that was somebody else’s field last year and could have had a disease and now its all over there plough, and if they bring it back into the yard and don’t wash it the whole yard could get the disease and it might be an outbreak on the farm of it. To stop this from happening they will have to have wash stations before getting onto the farm to allow no disease is going to be spread there. This will help the biosecurity massively around the estate. They also need to wash there tracks regularly as well around the field to ensure that the disease or pest is coming in from the tacks. Another way of making sure that the biosecurity is good around the farm is to not allow visits to the estate at all so the biosecurity office can track who is coming in and out of the estate.

8. **Risks and responsibilities of following biosecurity rules and regulations**

The responsibilities of not following biosecurity measures can be catastrophic for the estate in lots of ways, due to if the woodland gets a disease and can transfer to different trees quickly like ash die back (Hymenoscyphus fraxineus) it can take out a whole woodland quickly if they are not checked on and when taken down, they are not taken away properly it may affect the whole wood. Also, if a crop gets a pest like white bug in potatoes it can kill the whole field if not checked and if the farm isn't careful the pests can spread around the farm killing all the crops and loosing lots of money for the farm. If chemicals are accessible to the public or they leak due to not being secure they can also receive people like DEFRA coming into the farm to check and if they have not been following the rules DEFRA will shut them down straight away meaning they will all lose their jobs and the estate will be shut down completely. They also if the spillage kills or harms animals or people, they can receive up to 5 years in prison and their whole licence to farm or sell animals taken away for life. Can also receive a very high bill if it kills animals. To prevent this all from happening the estate should ensure that all the staff have up to date training on how to deal with biosecurity and how to do it.

Plant health legislation- Regulation (EU) 2016/2031 (plant health regulation) provides early-stage measures to stop pests from coming into the EU, or to get rid of them immediately if caught.

Defra – Departments for environment, food and rural affairs. They make sure that places are keeping up with industry best practice and biosecurity is on top off.

Biosecurity polices – Series of measures designed to reduce the risk of harmful organisms being transmitted.

COSHH – Control of substances hazardous to health.

Animal welfare act 2006 – Receive up to 5 years in prison.

Environment and countryside act 1981 – Provides protection against endangered species in the UK making it illegal to kill them in the UK.

Overall, I think the estate has lots to work on they have to change there only current biosecurity measure and be more drastic to reinsure them that they are doing their job correctly. To ensure the biosecurity policy will work they need to put a policy in place for example stopping diseases from traveling on vehicles into the farm and then the control

measure will be to get pressure washers just outside to wash off before getting in to get rid of the diseases. Then needs to be reviewed annually.

Costs

2x pressure washer and concrete wash away pits at East yard entrance and West yard entrance.

Costs of changing the estate to make it safer from diseases and make the estate more aware and cautions of biosecurity.

Concrete blocks for waste

Concrete pads

Sweeper for tractor

Signs and lessons of biosecurity

Hunter to kill pests

Cleaning kit to regularly clean the store room

People to professionally take away the harmful rubbish

Budget £30,000

Biosecurity
Do not
enter

Feed & Water
Rodent & Fly Control
Cleaning & Disinfection
Staff Movement
Dead Pig Disposal
Quarantining of Bought in Stock (e.g. gilts)
Visitors
No Pigmeat Products on Site
All-In All-Out System
Movement of Equipment
BIOSECURITY

Reference sheet

Biosecurity – Google classroom Gregs lesson 5
https://docs.google.com/presentation/d/1ci4dudARTqyI7LAe8kJe37Oh-0N1R9m7k7hWw7gu4Hc/edit#slide=id.g97e8862a17_0_44

Pests and diseases – I got taught my knowledge from my teachers.

Preventing crops from diseases – I searched into google “how to prevent plants from getting diseases” that is what it came up as.

How to look for disese in crops - https://eos.com/blog/crop-diseases/#:~:text=Symptoms%20Of%20Viral%20Crop%20Diseases&text=malformations%2C%20such%20as%20abnorm

Crop rotation - https://www.rhs.org.uk/prevention-protection/preventing-pest-and-disease-problems

DEFRA - https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs

Plant health legislation - https://www.gov.uk/guidance/plant-health-controls#:~:text=Plant%20health%20legislation%20controls%20the,cut%20flowers%2C%20foliage%20and%20grain.

Plant passport - https://campaigns.efsa.europa.eu/PlantHealth4Life/eu/articles/plant-passports/

Plant health legislation - https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/753189/EPRS_BRI(2024)753189_EN.pdf

Biosecurity polices -https://www.royalparks.org.uk/sites/default/files/2023-07/Biosecurity%20Policy.pdf

Potato pests - https://entomology.ca.uky.edu/ef304#:~:text=The%20common%20black%20and%20yellow,most%20serious%20pest%20of%20potatoes.

Wildlife and countryside act 1981 - https://www.studysmarter.co.uk/explanations/environmental-science/living-

environment/wildlife-and-countryside-act-1981/#:~:text=The%20Wildlife%20and%20Countryside%20Act%201981%20provides%20protections%20for%20endangered,internationally%20important%20habitats%20and%20species.

Biosecurity policy - https://www.nfuonline.com/updates-and-information/biosecurity-standards-and-guidelines/

Pressure washer - https://uk.rs-online.com/web/p/pressure-washers/2017314?cm_mmc=UK-PLA-DS3A-_-google-_-CSS_UK_EN_PMAX_Catch+All-_--_-2017314&matchtype=&&gad_source=1&gclid=Cj0KCQjwiYOxBhC5ARIsAIvdH513mosO8Zhel_IiGPgTY1pdPSNnY2vaCPjraUtzyuWL_7RFhJrYrh0aArWHEALw_wcB&gclsrc=aw.ds

Task 2 Report

Assessment number (eg 1234-033)	8717-035
Assessment title	Employer-Set Project

Candidate name	<first name> <surname>
City & Guilds candidate No.	ABC1234

Provider name	<provider name>
City & Guilds provider No.	999999a

Task(s)	2
Evidence title / description	Written report
Date submitted by candidate	DD/MM/YY

All of my maths I have completed with the cost of maintaining the equipment for the 1-year program

1. **Biosecurity mats**

I have put some gates across every part of the private road and biosecurity mats in the gateway to ensure that they are getting cleaned before entering the estate. I decided to do this so when the vehicle goes through the mat it cleans it from any diseases that are going to enter the estate in any way. I picked the more expensive mats because they are harder wearing, can withstand 50 or more vehicles a day and are big enough for a tractor tire to be cleaned on it as well. The positive about this product is that it will last a longer time than the other so it means it is better for the environment. The only downside is that the surface needs cleaning regularly but as said in section A the estate should have a biosecurity officer so they are in charge of making sure this gets done regularly and is done properly. Another positive about the mats is that it won't need to be monitored through out the day so it means it is a reliable product. The cost of doing this was £6,300. (£900 each)

2. **Pedestrian mats**

Pedestrian mats are key for the estate to stay away from any diseases and be assured that anyone who is coming into the estate has clean boots and if they have been somewhere else in their boots that has a disease the estate know that they are not going to get it because the pedestrians' boots are clean. That is why I have made It impossible to walk through any footpaths or walkways with going through the mats. The only bad side is that they are using chemicals which are then having to be taken away professionally which also costs money, the mats will benefit the estate massively so that people don't tread any diseases in. The cost of having the mats put down was £1,575. (£175 each)

3. **Hand sanitisers**

I have decided to pick the wall mounted sanitisers because the estate never had any before which is a big risk and could end up getting HASAWA out if they get caught. I have decided to place them in the west yard, east yard and horticultural yard. This is because when the workers get back, they will always end up going back to the yard so they can wash their hands there and make sure that they have not got any diseases. I picked the wall mounted ones as they were cheaper and are better for the environment as the bottled ones are a single use and are terrible for the environment and contribute towards bad biosecurity. The only downside is that they have plastic fittings which is not the strongest of martial so they might snap but they could reinforce them with wood. The cost of this was £540 (£135 each)

4. **Electrical and diesel-powered pressure washer**

At the moment the estate does not have a wash bay or a pressure washer, this is a key concern for pests and diseases easily being attached to the farm yard equipment. I have decided to put 2 big pressure washers in the west yard and the east yard as this is were most of the machinery will end up. I have also inserted some wash bays and drains with some of the remaining money I have. This is so the waste liquid doesn't run into the fields and if there are pests or disease on the equipment it doesn't go into thew fields and potentially kill the crops it goes into the drain. This is key so that the estate doesn't lose any crops from disease or pests and it also allows the equipment to look smart and presentable. This cost me £8,200 (£4,100 each). I'm also guessing that the drains put in are about £500 each so another £1,000.

5. **Small handheld pressure washer**

For smaller vehicles I have also budgeted 3 small pressure washers for small use on like bikes or mopeds that might come to the yard, this is important because any small piece of equipment may still harm crops, plants and animals. I have located these washers in the west and east yard. This is because any workers that come to the estate and work will end up leaving their vehicles in either the horticulture yard, west and east yard. This will allow the

estate to make sure no diseases are bought in to the yard and if a disease is found they will have to take further action. This cost me £240 (£80 each).

6. **Bio surface sanitisers**

Throughout the estate when I didn't spend money there was no surface cleaners around meaning it's a high-risk area for diseases and if caught with dirty surfaces and chemicals being left around and in risk of killing animals the estate might get DEFRA phoned on them as they are not following biosecurity polices and are also not following COSHH regulations as chemicals can be hazardous to health they also if endangered animals are harmed from the estate not following the rules they also will break the wildlife and countryside act of 1981. I have bought 4 x 25 litre tubes of it and I have gone for the most expensive one because it is packed in 100% recycled plastic which means that there is no harm to the environment, its free from volatile organic compounds and the bottle is fully biodegradable which is good for the estate as it is being greener and if they advertise being a green estate, they may get some money from the government for being good to the planet and caring. This cost me £100 (£25 each).

7. **Biosecurity signs**

The biosecurity signs are a key part to educating people and reminding them about biosecurity and how important it is to make sure they keep to the guidelines and regulations. This is why I have invested money into 14 signs across the estate and on every footpath and lots of gateways in the yard so people get reminded constantly and can go to the sign if they don't know if the biosecurity is up to scratch or not. The biosecurity manager which I spoke about in task 1 should make sure the signs get regularly cleaned so they don't lose their value and stay new saving money for the estate. This costed the estate £448 (£32 each)

8. **HASAWA signs (Health and safety and work act)**

Around the estate health and safety has to be a major priority to allow that they are following industry best practice to avoid accidents. Having signs around reminding workers and people who come into the yard is vital to make sure everything goes smoothly and nobody gets hurt. These signs are good for if the estate get an inspection from DEFRA, they will not get penalised for not having them shown. I have bought three signs to go around the estate, I have located them in the east and west yard and also the horticulture yard. The only issue about the signs is that they have to be updated yearly to make sure any new regulations are updated onto it. This cost me £195 (£65 each).

9. **Green waste skip**

Skips are a vital part of getting rid of rubbish around the estate. At the moment the estate only has 1 skip around the farm, I have changed this and added one extra one where the arable waste dump is. This is because a skip won't leak any liquids onto fields and if they are laid on hard concrete, they are easy to access and ensure that if they do leak its only onto concrete. A green waste is also good as they can be disposed of properly. The only issue is that if any waste that isn't green gets put in there and its harmful it can not be taken away for green waste so they would have to pay for it to be professionally taken away. One benefit of the skips is that it doesn't have any maintenance on it so it is only the standing price and no maintenance cost on top. This cost me £4,000 (£2,000 each).

10. **Polytunnels**

On the estate to grow their plants for the horticulture they need to be able to grow in polytunnels. Polytunnels are key for stopping pests and diseases entering the plants. They are also key for quarantine if needed for the plants. The tunnels are water proof wind proof and overall are pretty strong this is key so the plants don't get damaged and if there is a disease in there it won't spread around. Another benefit is that the surface run off form the tunnels might be able to be used to water the plants, which is good for the environment as we are reusing materials. I have placed the tunnel just near the green houses so that it is close to the horticulture land. A negative of the tunnel is that if the plastic gets ripped the whole tunnel has to be replaced which is very expensive. This cost me £2750 for one.

11. **Vermin bait boxes**

Vermin throughout the estate is a huge issue, as they are a major role in spreading disease from place to place. For example, if a rat has picked up a disease from running through a crop and then travels to fields on the estate and chews at the crops it will end up giving the crop the disease and end up costing the estate thousands. This is why I have placed bait boxes to catch the vermin around the estate to higher the biosecurity standards and allow the estate to be vermin free. I have placed these boxes at every woodland or parkland and in every yard so that the vermin can be attracted to the smell of the bait and don't go near the productive arable l fields. I have picked these bait boxes over the humane ones as they are cheaper for the estate and get rid of the vermin. This cost me £360 (£45 each)

12. **Bird scarers**

Birds are another major issue for biosecurity across the estate as they can spread diseases and can also eat the crops and the plants. This would cost the estate lots if the birds were not either hunted or scared off by the scarers. I have placed them in every productive arable field to stop them eating the crop and allowing them not to transfer any diseases across. A benefit of the bird's scares is that they don't need much attention for maintenance and are extremely load so the birds will fly away. The only downfall of these products is that the noise pollution is very loud so hopefully the places surrounding the estate don't mind. Also, they run off propane gas and batteries which isn't the best for the environment and are pretty expensive to buy new ones. This cost me (£1,950) £650 each.

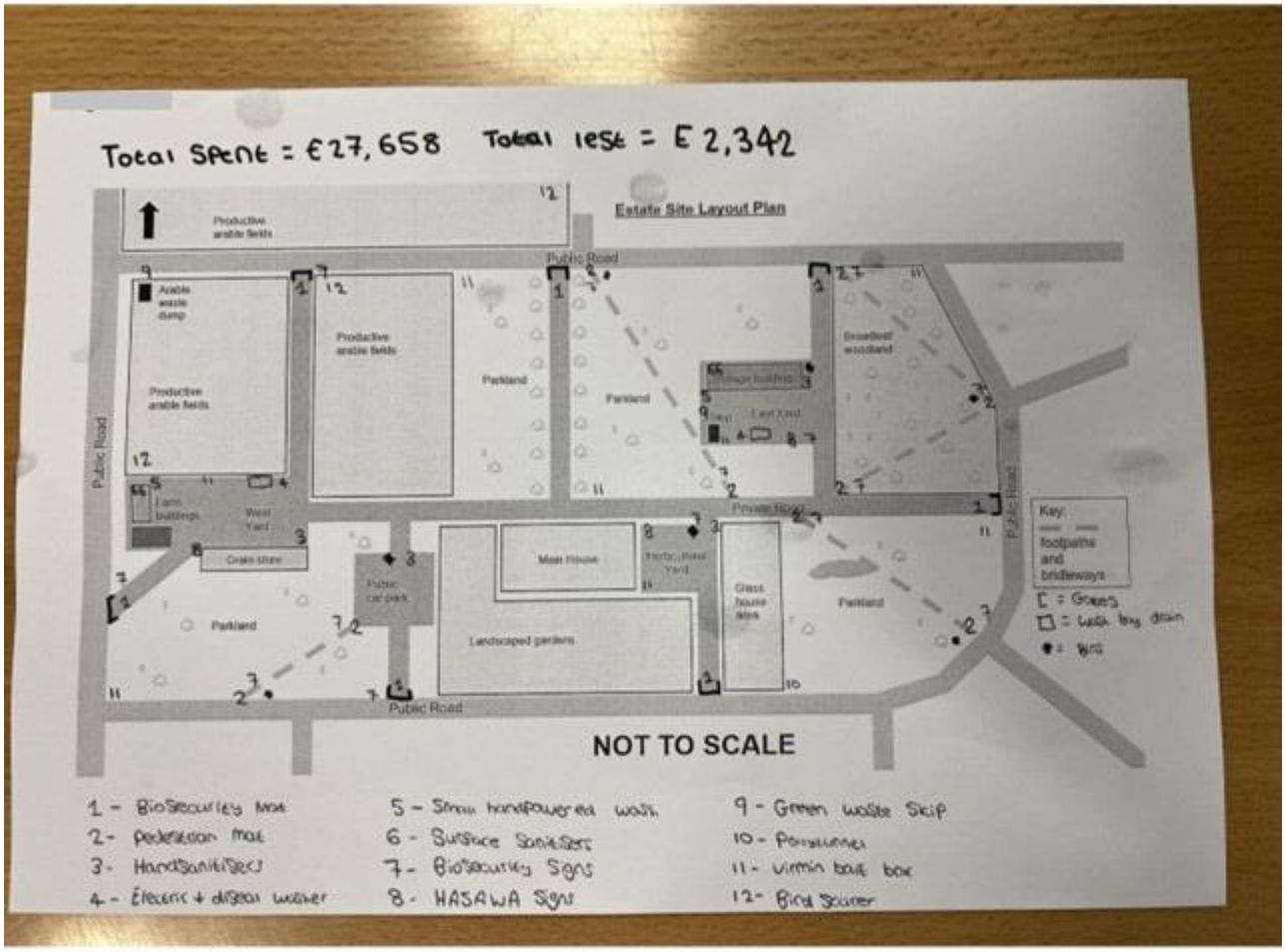
Overall

Overall, I have made these edits to the estate to try and improve the biosecurity to allow Guild's estate to be a successful estate and be able to carry on with more biosecurity in place and follow the rules and regulations regularly to allow them not to get a visit form DEFRA.

My spending's

- **Biosecurity mats @ £900 each x 7 = £6,300**
- **Pedestrian mats @ £175 each x 9 = £1,575**
- **Handsanitsers @ £135 each x 4 = £540**
- **Pressure washer @ £4,100 each x 2 = £ 8,200**
- **Hand powered pressure washer @ £80 each x 3 = £240**
- **Sanitiser surface cleaner @ £25 each x 4 = £100**
- **Biosecurity signs @ £32 each x 14 = £448**
- **HASAWA signs @ £65 each x 3 = £195**
- **Green waste skips @ £2,000 each x 2 =£4,000**
- **Polytunnel @ £2750 each x 1 = £2750**
- **Vermin bait box @ £45 each x 8 = £360**
- **Bird scarers @ £650 each x 3 = £1950**
- **Additional cost of drain @ £500 each x 2 = £1,000**

Total = £27,658 which leaves £2,342


Total Spent = €27,658
Total left = £2,342
Estate Site Layout Plan
Productive arable fields
Public Road
Arable waste dump
Productive arable fields
Parkland
Broadleaf woodland
Farm buildings
West Yard
Grain store
Public car park
Main House
Glass house sites
Landscaped gardens
Private Road
Key:
footpaths and bridleways
NOT TO SCALE
1 - BioSecurity Mat
2 - Pedestrian Mat
3 - Handsanitiser
4 - Electric + diesel water
5 - Small handpowered wash
6 - Surface Sanitiser
7 - BioSecurity Signs
8 - HASAWA Sign
9 - Green waste Skip
10 - Perimeter
11 - Vermin bait box
12 - Bird Scarer

Task 3 Plan

Assessment number (eg 1234-033)	8717-035
Assessment title	Employer-Set Project

Candidate name	<first name> <surname>
City & Guilds candidate No.	ABC1234

Provider name	<provider name>
City & Guilds provider No.	999999a

Task(s)	3
Evidence title / description	Implementation plan Supporting statement
Date submitted by candidate	DD/MM/YY

Implementation Plan

1. **Priority of tasks needed to improve the biosecurity quickest**

In all of the new and improved biosecurity around Guild's estate I believe that the biosecurity mats, electric and diesel pressure washers and the wash away drains will need to be prioritised and finished as soon as possible. This is because around the estate before adding equipment the machinery would be able to enter the estate freely without being washed down. This causes high risk of pests and diseases from entering into the yard and spreading around it, and if are caught not following correct biosecurity guidelines, they could get DEFRA coming for an inspection and potentially if no guidelines are being followed, they could shut the estate down and fine the estate huge amounts of money. This is why I believe the mats; pressure washer and drains should be a priority. To put the two pressure washers up as soon as possible I believe the estate manager should first put in place one biosecurity officer so they can deal with the operation. Once the officer has been chosen, I believe they should pick 2 woodland workers and 2 arboriculture workers to put up the two pressure washers, also over seen and help of 1 facilities manager to allow it to all run smoothly. If the officer has two teams of two workers, they should be able to set them both up in around 5 hours. I believe it will take 30 minutes to unbox and have a look at all the parts, around 3 hours to build. Then 45 minutes checking it is safe and to the right health and safety standard, and then 45 minutes to move the washers in the correct position and test they work. I then think they need to fit the wash away drains to the mains. This is key so no liquid waste goes into fields and either kills the crop or damages wildlife and animals. I believe it will take a team of 4 (2 farm workers and 2 horticulture workers), 2 days to fit both of the drains to the concrete yard. This is because they have to find out where the main drain around the farm is, dig the concrete up around it, take the concrete away in tractor and trailer and digger and then concrete the drain in and let it dry. This would take 2 days for the two teams. The mats I believe would take a team of 2 with a tractor and trailer a day to get around and place them in the gateways and secure them. Overall, the prioritised equipment will roughly take around 3 days and 5 hours.

The item I believe that has the least amount of priority is the small hand powered washer. I believe that this product is the least important because once we have the big pressure washer set up the small one can go right to the back of the list as the bigger one can wash everything including smaller vehicles but it takes more time to set up. Another item that is one of the least prioritised is the bird scares as the birds are not going to end up killing a crop really quickly and if they do start to eat the crop the estate can always ask a hunter to come and clear some away.

2. **How the staff are going to imply with the new biosecurity set up and training.**

With all of the new equipment in place staff will have to ensure they have had the correct training to ensure that their knowledge is up to date with biosecurity and know the correct rules and regulations of biosecurity. The estate manager should allow one day of training for all members of staff throughout Guild's estate to go through how to properly use all pieces of equipment and what legislation it falls under. This will be key to ensure that the whole estate knows how to perform biosecurity to industry best practice and it also means (for example) that if a worker is ill and can't make it into clean a piece of machinery that anyone can do it. The biosecurity officer should also do regular checks of the chemical stores and the green

waste tips to ensure that it is all clean and done to industry best practice. To reduce the likeliness of DEFRA being called. The manager should put a day aside as well for all of the estate to have a classroom theory day of biosecurity to make sure they know the theory side as well as being on top of biosecurity in the practical side. Another line of defence that the estate should do is to have a top up on everyone's health and safety courses as new equipment means that there is more risk around the farm and everyone needs to be up to date with it all. They should also allow time to do or refresh there first aid courses as new equipment means more risk around the estate. The estate should make sure that in every yard they have first aid kits in case of an accident.

3. **Educating the public**

When the estate put the biosecurity signs up and show off their new biosecurity measures the public may have relief to know that they are not entering a high-risk area of disease. The estates biosecurity officer should make the signs have all of there new measures that they put in place on the signs and how they are helping the farm out. The officer also needs to make sure they allocate one person to clean and maintain the signs so they don't get dirty and are kept in good condition. This may intis the public to learn more about biosecurity and could also bring in the estate more visitors due to them being a disease and pest free estate. It also teaches the public on biosecurity if the signs have key information on. As the estate also has some money left to spend, they could run courses for the public to be able to learn and be further educated on biosecurity.

4. **Staff responsibility and amendments**

To allow that the biosecurity of Guilds estate is kept at the highest level possible the staff need to take responsibility and make sure they keep to industry best practice and stick to the biosecurity measures, biosecurity principles and plant health legislation. They themselves also need to keep up to date with courses and need to take responsibility for there role. For example, if some of the arboriculture workers are felling a tree with sooty bark disease, they need to allow that they sanitiser fell, get rid of the brash in a controlled way so that the disease can't be spread and when getting back to the yard wash every bit of kit that was there properly so that the disease can not be spread around the estate. I also believe that the estate should employee someone to come around once a week to check on the new biosecurity measures maintain them and every year service the pieces of equipment that need servicing. This will save the estate money in the long run as machines will last longer due to them being checked up on regularly, everything will be cleaner attracting more people to the estate and also means if all of the new biosecurity measures are kept correctly it means there is no risk from DEFRA being called meaning that the estate won't be fined or shut down.

Supporting statement

I believe that my plan is the best for Guild's estate to ensure that biosecurity is kept at a high level and to allow the estate to have faith in not having an outbreak of pests and diseases or anything like that. I have put in all of the biosecurity measures carefully so that it is not an overload for staff and can be kept under control by a biosecurity officer. I set up the priority of the equipment to be put in place to allow that some sort of biosecurity measures is put in as soon as possible to ensure that the estate had some sort of measures in place in case they had DEFRA called on them.

I have also followed the industry guidance and legislations to make sure that the estate is doing things properly and won't get fined or prosecuted for having poor biosecurity. This was a big issue before they had a budget to spend because I would have classed them as a high risk of biosecurity and a huge risk for infections and pests and diseases.

The staff are a huge role for the biosecurity measures to work. As if they are not on board with the measures, they will have to learn otherwise the estate will have to let them go.

I have picked all of my measures sensibly and cleverly around the estate to ensure no biosecurity is being lost. For example, the biosecurity machinery mats to make sure that the machinery is all clean and sanitised before entering the estate this is key to ensure that no disease is escaping around the estate. Before the budget was used the machines were aloud to drive around the estate freely without being cleaned of pests or diseases.

Task 4 Peer review

Assessment number (eg 1234-033)	8717-035
Assessment title	Employer-Set Project

Candidate name	<first name> <surname>
City & Guilds candidate No.	ABC1234

Provider name	<provider name>
City & Guilds provider No.	999999a

Task(s)	4
Evidence title / description	Candidate Feedback Form Peer Review Form
Date submitted by candidate	DD/MM/YY

Candidate Feedback Form

Candidate's Notes
Did not specify who my biosecurity officer is. **Did not specify how much locked gates would cost.** **How would I ensure that the pedestrians use the mats?** **Drainage non in the horticulture yard.** **Surface sanitiser presumably not enough.** **Information signs need to be clear for public.** **Cost of concrete was not accounted for.** **Isolation tunnels in public parkland can be accessed by public.** **No pest traps in arable fields.**

Peer Review Form

Candidate Name	Candidate Number
<first name> < surname>	ABC1234
Provider Name	**Provider Number**
<provider name>	999999a
Peer Review Name(s)	
<first name> <surname>, <first name> <surname>, <first name> <surname>	

Questions for reviewers to consider:	Feedback
How well does the proposed solution improve Guilds Estate's biosecurity strategy?	I think very well as they have closed of access to the yards for public. Added concrete under skips for runoff, Isolation tunnels, plus sanitiser mats
How well does the proposed solution comply with key biosecurity principles and plant health legislation, regulations, codes of practice and industry guidance?	They have considered plant health legislation, HASAWA and COSHH legislation and based decisions on them. And added isolation tunnels.
How well has cost, and selection of suitable resources been considered in the proposed solution?	I believe their cost has gone over budget as they have not considered the gate costs and the cost for concrete for skips
How could the proposed biosecurity solution be further improved?	Within the budget I do not think anything could be added, however disregarding the budget, drainage for the hort yard should be added, extra vermin traps in arable fields should be added and information posters in public areas should be added.

Task 5 Evaluate and present

Assessment number (eg 1234-033)	8717-035
Assessment title	Employer-Set Project

Candidate name	<first name> <surname>
City & Guilds candidate No.	ABC1234

Provider name	<provider name>
City & Guilds provider No.	999999a

Task(s)	5
Evidence title / description	Presentation materials Note: Presentation recording is not included in this document. Please refer to the commentary in its place.
Date submitted by candidate	DD/MM/YY

Biosecurity presentation task 5

In this presentation I will be stating my reasons on why I have picked and placed my chosen equipment, evaluate my task 2 taking in feedback from task 4, how I would improve guilds estate and any different ways of which I would change my plan to do it next time.

Reasons for selecting biosecurity measures around the estate

Before spending a budget on Guilds estate there biosecurity measures were poor and very much lacking. This has now changed from spending the budget and making the biosecurity around the estate more improved.

(All of my measures are being overseen by the biosecurity officer and they are making sure that the equipment is being maintained to the best of there ability)

- **Biosecurity mats (and gates)** – I strategically placed my mats Infront of every gate so that any equipment coming onto the estate is disease free and assures the estate that their wont be any pests or diseases being entered onto the estate. The biosecurity officer will make sure that the mats are maintained well.
- **Pedestrian mats –** I have placed these mats around the estate on every footpath so the public do not transmit any diseases into the estate. I placed them at every end and start of a footpath to make it near impossible for the public not to walk onto them.
- **Hand-santisers –** I have placed the sanitisers around the estate in every yard to allow the workers to make sure they always have clean hands. If the estate is found not to have these and a worker gets a disease from not washing there hands this may come under HASAWA if they get caught and the estate maybe fined.
- **Bird scarers –** I placed my bird scares in every corner of my arable field to make sure that the crops are not eaten by and pests that have disease and that they are scared off before entering or eating the field. This is key to make sure

Biosecurity presentation task 5

- **Pressure washers-** There will be 2 pressure washers in each yard (east and west). I picked 2 small handheld pressure washers to allow the workers to wash small pieces of equipment if needed to make sure no pests and diseases are entering the yard. I also acquired 2 big pressure washers to wash heavy machinery down efficiently. I have placed these right next to a new drain that I have installed in both yards making sure that no harmful liquid waste is leaving the yard it is going straight down the new drain.
- **Signs around the estate-** I have also invested in biosecurity signs and HASWA signs around the estate. I have placed the biosecurity signs at every footpath in the estate and near every gate to make sure that the public and the workers know and stick to biosecurity guidelines. I have placed the HASAWA signs also in every yard to allow the workers to follow the act and if not sure on anything they can refer back to that.
- **Surface sanitisers-** In the budget there was also room for surface sanitisers around the estate to make sure everything is kept clean and away from any pests and diseases around the estate that may have crept in. I have placed these sanitisers in the storage sheds as they maybe hazardous to health and need to make sure the estate follow COSHH regulations.
- **Green waste skip-** I have placed the green waste skip in the arable waste dump area on a concrete pad as we don't want any liquid waste being spilt anywhere around the estate. This is appropriate as before the skip was placed just on a field which is poor access and waste liquid could have been spilt.
- **Polytunnels-** I have strategically placed my polytunnel next to the horticulture yard as its easy access for the workers. I have put one in place in case of a outbreak of diseases on the estate, this means if there is a sudden outbreak the plants can be quarantined and kept away from the other plants to make sure that the rest of the estate doesn't end up getting the disease.
- **Vermin bait boxes-** I placed my bait boxes in every corner of the parkland as I don't want the bait boxes run over in the middle of the field as that would loose the estate money. I placed the bait boxes there to try and keep them away from the yard and fields so that they are more enticed for food in the boxes then the yard to make sure that they don't spread any diseases into the yard without knowing.

Biosecurity presentation task 5

My feedback from task 2 and my response.

- Non specific on locked gates price – As being on a estate I believe the workers could make the gates from wood or metal which I didn't specify so it should not cost the estate to much to put the gates up. As hopefully there will be materials around the estate that could be used.
- How would I ensure pedestrians used the mats – I put mats on every entrance and every entry of the footpaths so the public would have to physically jump or walk far enough around it not too walk through it.
- Not enough surface sanitiser– Too get the estate started I only bought a small supply of surface cleaner so they could try it and make sure it is good enough then if the estate believes its working they will buy more, I also didn't want to fill up the storage sheds too much.
- Cost of concrete not counted for – I honestly forgot to add the price but I have £2,342.00 left of my budget so a small concrete pad should not cost too much as it only has to fit a skip onto it.
- No pest traps in arable fields – I didn't want to place any in the middle of the fields as it entices the pests into the field and also when in a tractor you can not see through the crop most of the time so it would end up getting run over costing the estate more money.
- Isolation tunnel can be accessed by public – A Polly tunnel does have doors on it so a simple lock can easily be applied but there will also be workers near or around the tunnel in the day so I'm sure people wont get in.

I believe that my strategy and all of my equipment that I chose from task 2 will improve Guilds estates biosecurity massively as before they had one policy of clean in and clean out. Which I believe was not followed correctly. Know they have lots of biosecurity measures in place to make sure that the biosecurity is kept up to industry best practice and stops any harmful diseases and pests from entering the estate and damaging it in any way. For example my pressure washer and drains, any equipment that comes in has to be made sure that they are washed correctly and make sure all the waste liquid ends up in the drain to not spread the diseases around. That is just one of several measures that have been put into place with the budget.

Biosecurity presentation task 5

How will my implementation plan from task 3 improve biosecurity around Guilds estate

I believe that my plan from task 3 will help and improve biosecurity across the whole of Guilds estate because once I picked my equipment there was still no structure, but in task 3 I built a structure and prioritised the equipment that needs to come in first. This is key for a quick change around the estate as it can be put in place quickly and have quick affect. I also set up the staff with new training so they can get there head around biosecurity and make sure that there understanding is up to date and can perform industry best practice day in day out. The staff will also have to go on courses which means they have a better understanding of biosecurity and can ensure the estate they are being as securer as possible around the estate to stop diseases or pests from entering in. I believe that all the implications put in place will stop the spread of pests and disease and also increase biosecurity around the estate.

Biosecurity presentation task 5

Changes if I did it again and any struggles

If I had to redo my project I would have maybe lowered my budget a bit as I was pretty close to going over the budget. I also would have maybe made two biosecurity officers around the estate so they could split the job and work together to tackle biosecurity. I would have invested in boot dips for the yards as well to further make sure that there is no diseases on there boot that may be spread around. For challenges I struggled a bit with making sure my maths was correct and budgeting the whole project but overall no main struggles.

Overall I am happy with my project and I believe I have done the best I could to try and improve biosecurity around guilds estate! Thank you for listening

Presentation commentary

Presentation
Overall, the candidate presented a clear, concise, informative and fully contextualised summary of their work. The candidate demonstrated an excellent application of their core knowledge with clear, detailed and logical lines of reasoning demonstrated in their rationale for selecting biosecurity measures. These measures were technically accurate, well-researched and clearly connected to the project brief. The candidate has critically evaluated their own work and fully considered feedback to add additional information and extended details to their measures and to provide enhanced justifications. The candidate showed an excellent application of communication skills with due consideration of the intended audience, with a confidently and fluently delivered presentation, making appropriate eye contact in places. The candidate made an excellent consideration of the budget and a well-argued justification of the intended measures, with thoughtful points made regarding training and communication strategies. The candidate made extensive reference to feedback and used this to formulate ideas for future developments, and the candidate's reflection on the challenges of the project was thoughtful and positive. The digital presentation was clear, well-structured and informative, but digital skills could have been used more effectively to enhance the quality of the presentation.

Q & A session
Questions were answered confidently using examples from the candidate's core knowledge and research findings. The candidate gave a number of considered justifications with excellent technical detail, which demonstrated reflection and openness to improvement. The candidate showed an excellent understanding and evaluation of their own project and how the outcome met the brief which was exemplified in their delivery of comprehensive and well-evaluated answers to the range of questions.

Get in touch

The City & Guilds Quality team are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

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