T Level Technical Qualification in Agriculture, Land Management and Production

Livestock Production Occupational Specialism

Guide Standard Exemplification Material Threshold Competence – Sample May 2024

Version and date	Change detail	Section
May 2024 v1		

Contents

Introduction

The sample evidence within this document refer to the Livestock Production Occupational Specialism assignment. The aim of these materials is to provide centres with examples of knowledge, skills and understanding that attest to a threshold competence grade.

The evidence presented here has been developed to reflect a threshold competence grade within each task but is not necessarily intended to reflect the work of a single candidate. It is important to note that in live assessments a candidate's performance is very likely to exhibit a spikey profile and the standard of performance will vary across tasks. The Guide Standard Exemplification Material (GSEM) illustrates linear performance across all pieces of evidence at the grade. A threshold competence grade will be based on a synoptic mark across all tasks.

The evidence in this GSEM is separated into the sections as described below. Evidence is presented against tasks from the assignment. Assessors using the GSEM may find it helpful to review this document along with the sample assessment materials.

Task
This section details the evidence to be submitted for marking and any additional evidence required including any photo/video/audio evidence. Also referenced in this section are the performance outcomes and assessment themes the evidence will be marked against when completing the tasks within it. In addition, evidence that has been included or not been included in this GSEM has been identified within this section.

In this GSEM there is evidence from:

- Task 1
- Task 2
- Task 3
- Task 4
- Task 5
- Task 6
- Task 7
- Task 8
- Task 9
- Task 10
- Task 11

Evidence
This section includes exemplars of candidate work, photos/video or audio recordings of the evidence in production (or completed) and assessor observation records of the assessment completed by centre assessors. This will be exemplar evidence that was captured as part of the assessment and then internally marked by the centre assessor.

The items of evidence included in the GSEMs are designed to illustrate the grade at evidence level. They are not intended to reflect the performance of a single candidate across

the assignment. Not all items of evidence are included in the GSEM, however a representative sample of evidence from across the assignment has been included to sufficiently illustrate the standard of performance expected for each type of evidence.

Commentary

This section includes detailed comments to demonstrate how the evidence attests to the standard of threshold competence.

It is important to note that the commentary section is not part of the evidence or assessment but are evaluative statements on how and why that piece of evidence meets a particular standard.

Grade descriptors

To achieve a pass (threshold competence), a candidate will be able to:

Demonstrate an adequate level of performance that meets the requirements of the tasks and demonstrates the sound technical skills and techniques for carrying out routine husbandry tasks associated with breeding, rearing and production of livestock to adequate standards and is able to enter the industry to begin to work in the occupational area.

Demonstrate an adequate understanding of human-animal interaction, applying safe and welfare orientated techniques when handling livestock.

Interpret technical information, plan, assess risk and follow safe working methods appropriately when applying practical skills to an adequate standard to satisfy the requirements of the tasks.

Work within relevant environmental and health and safety legislation and regulations.

Undertake adequate preparation of machinery and equipment to safely undertake tasks, applying all needed control measures during tasks.

Undertake adequate preparation of working areas to allow safe working, acknowledging potential risks and applying acceptable control measures during tasks.

Mostly use technical terminology accurately in plans, reports and documentation.

Task 1a – Husbandry Tasks

Evidence contributes to the following:

Performance outcomes	Assessment themes
PO2 Establish conditions for animal breeding	Health and welfare
PO3 Rear livestock from birth to production standard	Health and welfare Handling

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this GSEM
assessor observations	PO2: Health and welfare PO3: Handling PO3: Health and welfare		√	√
video(s)	PO3: Health and welfare		√	√ (placeholder)
photo(s)	PO3: Handling		√	√ (placeholder)
risk assessment	PO2: Health and welfare	√		√
medicine treatment record	PO3: Health and welfare	√		√

Candidate evidence - Risk Assessment

Candidate's name	Sample Candidate	**Enrolment number**	CG12345
Assessor	Sample Assessor	Date	23/03/23
Task / Activity	Cattle Health Checks	Location including Postcode	Borderway, Rosehill, Carlisle CA1 2RS
*OS Grid Ref/What3Words	NY 42862 55780 Reveal/Snail/Fence	Mobile Phone Signal	Good across site
Nearest Accident & Emergency	Cumberland Infirmary 01238 42**44	Meeting point for Emergency Services	Car Park

Item no.	What are the hazards?	Who might be harmed and how?	What precautions are already in place?	Risk rating (High / Medium / Low)	What further action is necessary?	Action by who and when?	Final risk rating (High / Medium / Low / Trivial)
1	Zoonotic diseases	Staff, visitors, vets	Correct PPE– overalls, waterproof leggings, boots.	Low			Low
2	Physical injury	Staff, visitors, vets	Cattle handling system.	Medium	handling system should be used.	Stock person – ensure adherence to system.	Low
3	Gates	Staff, visitors, vets	Remain vigilant to cattle movement to prevent injury of hands by horn or in gates.	Low		All staff - awareness	Low

4	Uneven ground	Staff, visitors, vets	Yard cleaned prior to starting work, potential hazards removed. Suitable PPE.	Low		All staff	Low

Date: 23/03/23	Risk assessment carried out by: Sample Candidate

Commentary

The candidate completed an adequate risk assessment which would keep themselves and others safe showing an adequate understanding of the main hazards from working with cattle. Likelihood and severity have been considered for all risks for this **health and welfare** task. Where risk is identified as low, no further action is detailed – there are actions that could have been detailed; for medium risk, further action is identified but is narrow in its reach. Findings are correctly recorded on the form.

The risk assessment was completed with an adequate understanding of the difference between hazards, risks and control measures, and correctly categorised final risk ratings. For example, the candidate identified precautions but could have expanded on how the cattle handling system acts as a precaution.

Assessor Observation - Task 1a

Task	Qualification number
Work with two others to safely move animals (6-10) from a yard/ pen/ field into a handling area	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Handling

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• collaboration and communication with others to effectively move livestock into the handling area • use of appropriate techniques to handle and move livestock	The candidate: • opened up the entry gates to the handling system and then went to the enclosure gate and opened it. • did not verbally communicate well with the two helpers at this stage. The two helpers walked round the animals positioning themselves too far behind the animals' point of balance - and the animals stopped moving. . Without verbal communication from the candidate the helpers, repositioned themselves more closely to the animals to get the animals moving out of the enclosure area. The animals started to move toward the handling system gates with the helpers following behind. • Walked around the outside and asked the helpers to close the gate to the enclosure area Once the animals were in the handling system the candidate instructed the helpers to close the rear handling gate. (candidate left decisions about flight zones up to the helpers and only communicated about the gates)

Assessor signature	Date
Sample Assessor	23/03/23

Video evidence:

- work with two others to safely move animals (6-10) from a yard/ pen/ field into a handling area.

The video shows: the candidate opening up the entry gates to the handling system and going to enclosure and opening the gate. The two helpers walking round the animals positioning themselves - behind the animals' point of balance. The helpers standing too far back outside of the flight zone and the animals stop moving. The candidate repositioning themselves towards to the animals. The candidate instructing the helpers to close the rear handling gate. The helpers moving closer to the animals and the animals moving towards the race. The candidate instructing the helpers to move the animals into the race and to close the gate behind them. The helpers moving the animals on and closing the gate behind them.

Commentary

The candidate demonstrated an adequate level of performance by opening the gates and moving the animals however, there was a lack of understanding of flight zones seen as the candidate did not communicate to the helpers when they stood too far back. The assessor noted that the candidate only communicated about the gates.

The candidate gave instruction on when to close the gates which showed an adequate understanding of **handling techniques**. Limited communication between the candidate and helpers contributed to the need for helpers repositioning. However, collaboration was witnessed and this led to successfully getting the animals into the handling area. They displayed an adequate understanding of health and welfare of animals demonstrated through handling techniques by working in a quiet and calm way so not to agitate the animals.

Assessor Observation - Task 1a

Task	Qualification number
Take the lead when working with one other to safely restrain one animal using appropriate equipment	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Handling

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• clear and appropriate instructions given to the other person • use appropriate techniques to handle and restrain cattle safely • apply physical dexterity with appropriate application of force and pressure when interacting with cattle • use of equipment to restrain cattle could include: ○ halter, race, crush, yoke, calf by hand, handling pens	The candidate: • asked the helper to open the gate to the race - this wasn't effective communication as the animal did not move forward • asked the helper to use the backing gate to move the animal forward into the race – the helper complied and the animal moved forward to the race moved the animal forward calmly further into the race, encouraging it into the crush. (The candidate touched the animal too far forward on their body which caused the animal to go backwards. The candidate realised this and tapped the back of the animal to make it go forward again) operated the head yoke attempting to secure the animal in the yoke correctly. Eventually the timing of the yoke operation was more in line with the pace and position of the animal. • eventually managed to restrain the animal in the yoke by the neck.

Assessor signature	Date
Sample Assessor	23/03/23

Video evidence:

- take the lead when working with one other to safely restrain one animal using appropriate equipment

The video shows: the candidate asking the helper to open the gate to the race, this not being effective and the candidate asking them to use the backing gate to move the animal forward into the race, the helper holding the gate and using it to move the animal forward to the race, the animal moving the animal forward calmly further into the race, encouraging it into the crush. The candidate touching the animal too far forward on the body causing the animal to move backwards. The candidate touching the animal towards the back and the animal moving forward into the yoke and the candidate operating the yoke and it closing on the animal's neck.

Commentary

The candidate demonstrated an adequate level of **handling** performance that met the requirements of the task by successfully getting the cattle into the race and crush with due regard to health and welfare to the animal demonstrated by handling techniques by ensuring that the helper was told what to do as the task progressed. This could have been improved by telling or showing the helper where to stand and how to move the cattle forward before the task commenced. The candidate showed adequate handling techniques whilst moving the cattle into the crush, but this could have been improved if the candidate had not touched the animal in the shoulder which caused the animal to move backwards.

They lacked some communication and planning by not requesting the use of the backing gate to begin with – they could have informed the helper to do this before the task commenced. Once the backing gate was used by the helper, the candidate moved the animal adequately into the crush.

The candidate demonstrated an acceptable ability to work with others to safely move livestock by adapting their instructions in response to the way the cattle reacted. However, this could have been improved with some clearer instructions before the start of the activity.

Assessor Observation - Task 1a

Task	Qualification number
A full health assessment on one animal	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO2: Health and welfare

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Assessor - provided a heifer of 15 months of age, ready for breeding. **Information not given to the candidate - 367kg BCS 3**
• use of techniques to identify and monitor the health and wellbeing of livestock • appropriate handling techniques	The candidate: • opened the side access gate on the crush. • didn't interact with the heifer before the next stage • felt for the sharpness of the spinous processes. • missed the transverse and tail head. • carried out a conformation check • checked over the heifer's coat/skin. • checked the legs/hooves. • checked head, eyes, nose • checked teats, udder • checked rear/anus and took temp. Candidate didn't spend a lot of time carrying out the checks but was quiet and calm. Not carried out in the logical order e.g. starting with the head and finishing with the tail.

Assessor signature	Date
Sample Assessor	23/03/23

Commentary

The candidate demonstrated an adequate performance that meets the requirements of the task which was carried out to a sufficient standard but not in a logical order – the candidate did not work from the head to the tail. The candidate considered the animal's **welfare** when completing the health check as evidenced by the manner it was undertaken (keeping calm).

The techniques to complete health assessment were generally appropriate as evidenced by extent of the health check however they could have been more thorough and the order in which the assessment was carried out could have been more logical. The check covered most relevant checks for example amongst others, the eyes, coat, rear and hooves were all checked.

Assessor Observation - Task 1a

Task	Qualification number
Check equipment and weigh an animal	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Handling

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• check equipment for accuracy and weigh cattle using scales • use appropriate techniques to handle and weigh cattle safely	The candidate: • visually checked that the weigh crush scales were set at zero, but they did not calibrate the scales nor clean the scales from the straw or muck on it. • didn't wait for the scales to settle before recording a weight. • realised that the weight hadn't been recorded correctly. Undertook the weighing of the animal for a 2nd time, noted the weight at 367kg. • handled the heifer with caution keeping the animal calm, the candidate remained calm avoiding fear and distress for the animal.

Assessor signature	**Date**
Sample Assessor	23/03/23

Photo evidence:

- the scales showing a zero reading
- the equipment being checked for accuracy
- the animal being weighed (with scales showing reading)

The picture(s) will be of the weigh crush scales showing a zero reading (dirty scales).

The picture(s) will be of the equipment being checked for accuracy **with** the calibration (25kg) on the weigh crush scales (dirty scales).

The picture(s) will be of the animal on a scale showing the weight in a weigh crush scales (dirty scales).

Commentary

The candidate demonstrated an adequate level of **handling** performance that meets the requirements of the task by visually checking the scale was set to zero but unfortunately, not ensuring that the weigh crush scales were calibrated or clean which would not necessarily give an incorrect reading if set to zero.

The candidate demonstrated an adequate understanding of health and welfare, by applying adequate techniques when **handling** livestock by remaining calm and displaying compliance with the codes of welfare for cattle by avoiding causing fear and distress to the animal.

Assessor Observation - Task 1a

Task	Qualification number
Identify one animal using a digital tag reader and apply markings	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Handling

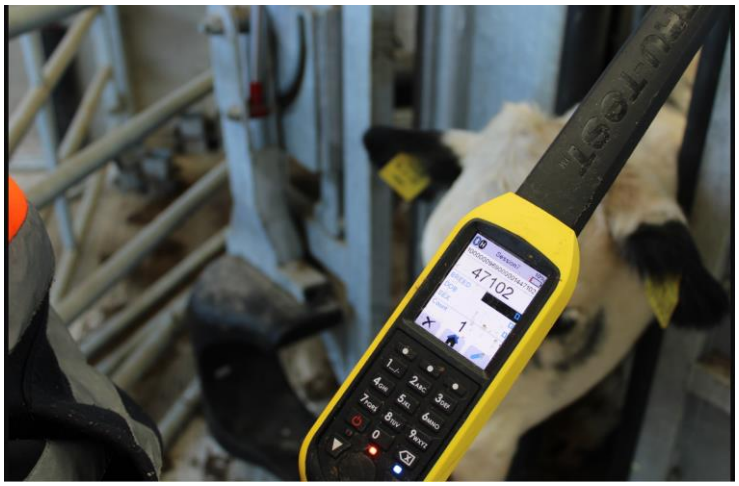
Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• accurate identification of animal (ear tag, freeze brand, collar)	The candidate read the tag identification equipment successfully and noted the ID of the heifer.
• techniques and application of a temporary marking to an animal (tape, wax/ spray marker)	The candidate placed a mark the size of their hand (excessive and wasteful use of product) on the animal's rump using spray. The mark was very obvious.

Assessor signature	**Date**
Sample Assessor	23/3/23

Photo evidence:

- use of the digital tag reader



- the applied markings

Commentary

The candidate demonstrated that they were able to position and read a digital tag reader correctly.

The application of the spray marker was excessively large and wasteful of product. This was an adequate **handling** technique used by the candidate.

This evidence in isolation provides minimal differentiation between grades as the tag must be correctly read in order to support the follow-on tasks.

Assessor Observation - Task 1a

Task	Qualification number
Administer oral treatment to an animal	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Health and welfare

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
safe application of oral treatment to cattle • setting up of treatment equipment • measure treatment with precision • administer an oral treatment	The candidate: • set up equipment correctly by removing the cap from the wormer bottle and attaching the delivery pipe securely and then pumped the applicator to draw the wormer from the bottle down the tube and into the applicator but during priming did not expel all the air. • set the applicator for a single dose using the weight of the heifer (367kg) and the product label. • realised that there was air in the applicator – expelled the air before re checking the dose was correct. • gripped the heifer's head • lost grip of the heifer's head, due to a poor grip and didn't have the animal's mouth at quite the right angle when attempting to administer the dose.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	• readjusted to get a firmer hold on the head and administered the dose successfully. The heifer was seen to swallow the treatment without any spillage. • released the hold on the heifer's head and let the heifer move on to the resting pen.

Assessor signature	**Date**
Sample Assessor	23/03/23

Video evidence:

- administer oral treatment – to include setting up of treatment equipment and administering of treatment

The video shows: the equipment being set up by the candidate, removing the cap from the wormer bottle and attaching the delivery pipe securely and then pumping the applicator to draw the wormer from the bottle down the tube and into the applicator. The candidate removing the cap from the wormer bottle and attaching the delivery pipe securely and then pumping the applicator to draw the wormer from the bottle down the tube and into the applicator but during priming the air is not expelling. The applicator being set for a single dose using the weight of the heifer and the product label. The air being expelled the air before the candidate re checks the dose. The candidate gripping the heifer's head and administers the oral treatment to the animal. The candidate losing grip of the heifer's head, due to a poor grip and not having the animal's mouth at quite the right angle when attempting to administer the dose. Readjusting to get a firmer hold on the head and administering the dose successfully without spillage. The candidate releasing the heifer into the pen.

Commentary

The candidate demonstrated an adequate level of performance that met the requirements of the task by setting up the equipment to an acceptable standard. The candidate got the dose correct which is essential. By not priming correctly, the candidate failed to show initial due diligence in setting up the equipment but later corrected this to show an adequate preparation of equipment to safely undertake the task. The candidate demonstrated an adequate understanding of human-animal interaction, applying safe and **welfare** orientated techniques when livestock by readjusting the hold to administer the dose. Any spillage of the dose would not have been acceptable.

Candidate evidence - Medicine treatment record

Candidate's name	**Sample Candidate**	**Enrolment number**	**CG12345**
Task / Activity	**Medicine treatment record**	Location	Sample Centre
Assessor's name	Sample Assessment	Date	23/03/23

Name of Veterinary Medicine & Batch No	Date Treatment Started	Date Treatment Finished	Identity of Animal / Group Treated:	Person(s) Administering Medicine	Reason For Treatment & Comments	Total Quantity Used	Withdrawal Period (State Hours / Days)		Date Withdrawal Period Ends
							Meat	Milk	
Albex 10%	06/02/23	06/02/23	UK 0 123456 54301	SC	wormer	27ml	14 days	N/A	21/02/23

Commentary

The medicine treatment record is adequately completed by the candidate for this **health** and **welfare** task. The medication has been rounded down to nearest ml with no detriment to the animal. Withdrawal date not worked out accurately. Going a day longer on the medicine record does not put the animal's health at risk or if the animal were to go into the human food chain, it would not pose a risk for human consumption. By only placing their initials on the form, the candidate has not made their identification as easily understood as it could be. The reason for administration is correct but the candidate did not list that it was a preventative treatment.

Task 1b – Husbandry Tasks

Evidence contributes to the following:

Performance outcomes	**Assessment themes**
PO2 Establish conditions for animal breeding	Health and welfare Breeding
PO3 Rear livestock from birth to production standard	Handling Rearing

Evidence	**Assessment themes**	**Candidate producing**	**Assessor producing**	**Included in this GSEM**
health check report	PO2: Health and welfare	√		√
written report	PO2: Health and welfare PO2: Breeding PO3: Rearing	√		√

Candidate evidence - Health Check Report

Candidate's name	Sample Candidate	**Enrolment number**	CG12345
Task / Activity	Health Check report	Location	Sample Centre
Assessor's name	Sample Assessor	Date	23/03/23

Animal ID: UK 0 123456 54301		
Health Check:	**Check Completed (Tick):**	**Comments:**
Body Condition Score & Weight	✔	BCS around 3.5, 367Kg
Coat/skin	✔	Normal - shiny no evidence of skin irritation or bumps
Limbs/feet/hooves	✔	Sound on legs, no sign of limping, feet show no signs of abnormality.
General condition, head and eyes, ears.	✔	Head upright, interested, eyes bright and clear, ears alert
Nose, respiration	✔	Nose clear, normal steady breathing.
Teats	✔	Four teats with no lumps

Anus	✔	clear, no discharge
Temp	✔	38 C

Commentary

The candidate demonstrated adequate understanding of the characteristics of livestock that indicate they are ready for stages of breeding production. The candidate used adequate skills/ techniques when using the recording form for the health check. Whilst the BCS given is slightly higher than given by the Assessor in the Assessor observation task; Task 1a - A full health assessment on one animal (3), this is still acceptable for threshold competence for this **health and welfare** task because the animal is still fit for breeding and a candidate at this level may not get it spot on. The checks listed are relevant and adequate. Some detail is missing or scant e.g. coat/skin condition, udder condition, and state of faeces.

Checks such as the head area, respiratory and limbs captured on the form to an adequate standard and shows the candidate is doing more than just a basic check as the detail in the comments give more clarity regarding what the candidate captured.

Candidate evidence - Written Report

Breeding suitability report - cattle (word count: 263)

This short report will detail the condition of the heifer and her suitability for breeding. She was checked on 23/03/23 and carries the EID number: UK 0 123456 54301.

EID/passport records show the animal is a Holstein dairy heifers 15 months of age. The heifer weighs 367 kg so this would suggest that she has gained sufficient weight at this current time to be in a fit state for breeding and was seen to be the same size as others. This is a normal growth rate for a dairy heifer.

As shown by the health check report, the heifer was in good condition, it was alert, head was upright, with interested, eyes bright and clear and ears alert. The hooves were in good condition and when she moved her legs no lameness could be seen. If they are lame the heifer may not be able to stand for the bull. The coat was glossy, and it was noticed that the heifer had been licking herself. The heifer had a clean nose which was a little damp which Is normal for a healthy animal.

The heifer appeared to be quiet and would be good for bulling.

The heifer had a good body condition score of 3.5 placing them in acceptable condition for breeding purposes. Weights ranged from 350 – 401 kg, heifers that are too fat or underweight can struggle to come a bulling.

Additional supplements could be given to the heifers to support fertility and assist in the condition.

Heifer's record shows all vaccinations are up to date and they are ready for breeding.

Commentary

The candidate demonstrated adequate understanding of the characteristics of livestock that indicate they are ready for the stages of **rearing and breeding** production. An adequate understanding of the signs to assess suitability for livestock **rearing and breeding** was displayed; reference to the age, weight, BCS head and alertness made. The candidate assessed the animal as BCS 3.5 which is slightly higher than would be ideal for **rearing and breeding** and this is a carry through from the health check in Task 1a. Whilst the health and behaviour of the animal was covered, there was not a lot of detail relating to the justification in the report. The candidate missed some detail and indicators of **health and welfare** and **breeding** suitability such as stating that the health was normal.

Task 2a – Rearing

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Rearing

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observations	PO3: Rearing		√	√
photo(s)	PO3: Rearing		√	√

Assessor Observation - Task 2a

Task	Qualification number
Correctly fit a calf jacket and attach a halter	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Rearing

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	Notes – *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• correct fitting of a calf jacket (correct fastening, correct length of straps)	The candidate: • placed the jacket over the back of the calf and fastened the chest clips which were fitted a little loosely, they then fastened the straps but did not adjust the straps to make sure it had the appropriate width between the stomach and strap. • then adjusted the straps to allow a hands width (approx. 7cm) for comfort. • clipped the leg straps but did not tighten them sufficiently to accommodate the calf's size and changes in movement but not so loose as to come off the calf and cause a hazard.

Assessor observation	Notes – *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• correct attaching of halter (correct direction/ orientation, tightened appropriately)	the candidate placed the halter on the calf and adjusted it to allow the nose band to drop down away from the eye and the halter loop was then positioned lower down allowing the loose end of the halter to come from under the calf's chin on the left-hand side of the calf's head. The position of the halter neck loop could have been closer to the calf's poll.

Assessor signature	Date
Sample Assessor	23/3/23

Photo evidence:

Jacket:

Calf with jacket fitted.

Halter:

The halter is acceptably positioned across the calf's nose away from its eye. The halter is slightly away from the calf's poll, but this is acceptable for this as the candidate is keeping the position of the halter knot low using the lead rope.

Commentary

The candidate demonstrated an adequate level of performance to meet the requirements of the **rearing** task by attaching the jacket and satisfactorily fitting the halter.

When the candidate fitted the calf jacket, the leg straps were slightly loose. This was adequate because the jacket would not fall off and cause a hazard to the calf.

When the candidate fitted the halter the neck loop was a little too far from the calf's poll and the loop was slightly too close to the underside of the calf's eye; this is an acceptable placing of the halter as it does not pose any concerns to the animal's welfare.

Task 2b – Rearing

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Rearing

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observations	PO3: Rearing		√	√
video/audio(s)	PO3: Rearing		√	√

Assessor Observation - Task 2b

Task	Qualification number
Catch one sheep from a group	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Rearing

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• appropriate methods used to restrain and catch the sheep with minimum stress to sheep	The candidate: • approached the group of sheep to catch the selected sheep • not always aware of animal flight zone and point of balance • attempted to catch the sheep whilst too far away which caused an unbalance and loss of footing, allowing the sheep to take control • realised how the position they adopted with their body by being too far behind the point of balance had allowed the sheep to take control • corrected this by moving closer to the sheep and further forward on the sheep's body allowing them to control the movement of the sheep more effectively and move it towards a pen wall, correctly holding it under the chin and on its flank

Assessor signature	Date
Sample Assessor	23/3/23

Video evidence:

- catch a sheep from a group. Video is a separate file: Task 2b - catch one sheep from a group

Commentary

The candidate displayed an adequate level of performance that meets the requirements of the **rearing** task. The candidate adjusted their technique whilst attempting to control the sheep's movements to complete the restraint, holding the animal in the correct position of head and flank, demonstrating an adequate understanding of health and welfare of animals demonstrated through handling techniques.

Assessor Observation - Task 2b

Task	Qualification number
Manually tip and turn a sheep using the correct techniques and check feet to identify if treatment is needed	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Rearing

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• use tip and turn technique correctly, appropriate restraint whilst sheep is turned • observation and handling (checking for heat, parting of hooves, smell, damage, inflammation) of all feet to identify if treatment is needed	The candidate: • initially placed their left hand to the side of the sheep's mouth in an attempt to start the hold and placed the right hand on the back of the sheep instead of in the flank. • initially incorrectly placed legs by standing to the left side of the sheep instead of standing behind the sheep • repositioned themselves and the sheep (lifted the sheep upwards into a sitting position using both hands on the left shoulder of the sheep) • made a leg correction to ensure their balance was corrected • caught the sheep's right foreleg • repositioned the sheep into a sitting position between their legs) but the sheep was too upright and therefore uncomfortable. (the sheep should be sitting on its flank).

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	• moved their right hand from the right leg and placed it on the brisket of the sheep to control movement and put the sheep into a more relaxed position sitting on its flank. • visually inspected /held each hoof to look for signs of infection. Was not seen to smell for signs of foot rot. • safely released the sheep through gently rolling onto her side, allowing her to get to her feet.
Question and Answers • What are the signs that indicate that the feet require treatment?	You could see: Lameness – sheep with a foot up or walking with a limp. Walking on their knees. When you turn the sheep over you might: Smell foot rot See overgrown hooves. See a stone or pebble in the foot.

Assessor signature	**Date**
Sample Assessor	23/3/23

Video/Audio evidence:

- manually tip and turn a sheep. Video is a separate file: Task 2b - tip and turn sheep (TC)
- question and answers. Audio is a separate file: Task 2b - Q&A signs feet require treatment AUDIO (TC)

Commentary

The candidate displayed an adequate level of performance that met the requirements of the **rearing** task by adjusting their technique to control the sheep's movements, demonstrating an adequate understanding of skills/ techniques used when working with livestock. The candidate displayed adequate technical skills when assessing the condition of the sheep hooves and followed safe working methods in the practical task by carrying out an adequate inspection of all the hooves, however, they missed the opportunity to smell for foot rot. The candidate showed adequate understanding of the knowledge that relates to the practical tasks in their responses to the question by making generalised comments about conditions but lacked depth and detail such as swelling, heat and diseases.

Assessor Observation - Task 2b

Task	Qualification number
Age a sheep from its teeth and assess teeth condition	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Rearing

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• correct techniques and identification of presence of broad teeth (incisors)	The animal was restrained safely with the jaw held so that the candidate could count the teeth. There was minor evidence that the sheep was not held quite securely enough and so the sheep appeared to be slightly uncomfortable which was displayed by the sheep putting their foot out and struggling. The candidate assessed the sheep's mouth by pulling back the lips to expose the teeth.
Question and Answers • How many broad teeth (incisors) are present?	Correct number of incisors noted - 6 incisors.
• Based on the number of broad teeth (incisors) present, approximately how old is the sheep?	age estimated inaccurate (4 years)

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*

Assessor signature	**Date**
Sample Assessor	23/3/23

Audio evidence

- question and answers. Audio is a separate file: Task 2b - Q&A ageing a sheep from its teeth AUDIO (TC)

Commentary

The candidate demonstrated an adequate understanding of human-animal interaction, by applying safe and welfare orientated techniques when handling livestock. The candidate did not hold the sheep as securely as they could have. The candidate correctly held the lips of the sheep's mouth open, identified the correct number of incisors but aged the sheep as 4 years as part of this **rearing** task. Whilst not totally correct, it is not unknown for sheep of 4 years old to have 6 incisors.

Task 3a – Livestock production

Evidence contributes to the following:

Performance outcome	Assessment theme
PO4 Optimise livestock production	Production/Routine production

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO4: Production/Routine production		√	√
video(s)	PO4: Production/Routine production		√	√

Assessor Observation - Task 3a

Task	Qualification number
Determine individual body condition score of a group of three animals	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Production/Routine production

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• safe handling of sheep in the appropriate areas to determine BCS	When assessing body condition, the candidate safely handled the loin on all animals. Candidate did not always assess the sheep the same as the assessor.
Question and Answers	
• What is the body condition score for each of the three animals?	Sheep 1: Body score 2.5 (assessor graded 2.5) Sheep 2: Body score 4.5 (assessor graded 4.5) Sheep 3 Body score 3.5 (assessor graded 3)

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• What is the locomotion score for each of the three animals?	Sheep 1: Score 0 – Sound Sheep 2: Score 0 – Sound Sheep 3 Score 2 – Moderately lame (the sheep is actually severely lame)
• What visual signs and industry guidance have enabled you to determine the locomotion score for the three animals?	For sheep 1 and 2 there were no signs of lameness For sheep 3 the sheep was lying down a lot and was moderately lame in front and behind.

Assessor signature	**Date**
Sample Assessor	23/03/23

Video evidence:

- body condition score for three animals. Video is a separate file: Task 3a - body condition scoring three sheep (TC)
- locomotion for three animals. Video is a separate file: Task 3a - Locomotion scoring three sheep (TC)

Commentary

The candidate used adequate techniques when condition scoring the sheep. The candidate scored two of the three sheep correctly and was 0.5 of a score outside of the assessor's scoring for one of the sheep. This is an acceptable difference in assessing body condition as it is about practice and standardisation.

For locomotion scoring, the candidate correctly handled the sheep by getting them to move calmly around the pen. When carrying out the locomotion scoring, the candidate referred to one of the industry standards (Liverpool standard – other standards are available and are acceptable) and scored the sheep according to that standard on two occasions but on the 3rd occasion they used the incorrect score.

Task 3b – Livestock production

Evidence contributes to the following:

Performance outcome	Assessment theme
PO4 Optimise livestock production	Transportation

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observations	PO4: Transportation		√	√
video/audio(s)	PO4: Transportation		√	√

Assessor Observation - Task 3b

Task	Qualification number
Visually assess condition of transport for livestock	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Transportation

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• correct checks carried out as part of the visual assessment including roadworthy condition, well-constructed and maintained transport.	The candidate checked the roadworthiness of the towing vehicle and trailer as follows: • tyre condition and pressure • lights and indicators • hitch including brake attachment • the inside of the trailer • the internal partitions • the condition of the ramp.
Question and Answers • What are you checking, and why, regarding the suitability of the transport vehicle and loading facilities?	• the towing vehicle and trailer were correctly hitched. • the brake cable was attached. • Tyre condition on both the vehicle and trailer in good condition and couldn't see any damage. • the lights and indicators to make sure they were undamaged, and the cable was connected correctly

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	• ventilation ports - checking they were open to provide extra air in the trailer. • that the inspected vehicle was road worthy and had enough space to carry the six sheep within the trailer. • the inside of the trailer had no sharp or rough edges. • the partitions are strong enough to contain the sheep. • the ramp was down ready for loading the surface of the ramp was safe for the sheep to go up. • the roof and sides of the trailer are secure • in the trailer there was enough light so the animals can see once loaded.

Assessor signature	**Date**
Sample Assessor	23/03/23

Audio evidence:

- questions and answers. Audio is a separate file: Task 3b - Q&A visually assess condition of transport AUDIO (TC)

Commentary

The candidate's visual inspection of the trailer and responses to questions showed an adequate understanding of the required preparation of the trailer **transportation** prior to loading with livestock. The candidate responses showed they knew what to check but not always the full rationale, for example in the checking of the tyres and brakes. The candidate displayed adequate knowledge and understanding of practical and legal requirements for the safe **transportation** of livestock.

Assessor Observation - Task 3b

Task	Qualification number
Visually assess livestock for fitness for travel	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Transportation

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• correct checks carried out as part of the visual assessment to determine fitness for travel.	The candidate went to the group of six sheep and observed them from the outside of the pen initially. The candidate then went into the pen, walked amongst the sheep and continued to check their fitness to travel but didn't get the sheep to stand if they were lying down.
Questions and Answers • What are you checking, and why, regarding the fitness of the livestock for travel? • What actions would you take if you discover one of the animals is unfit for travel?	The candidate confirmed no sheep: • had visible injuries/cuts • were prolapsed • were close to lambing • were very lame. Any unfit animals would not be loaded but if they had been loaded, I would off load them and would be returned to the pen and I would tell the shepherd so that the sheep could be treated appropriately.

Assessor signature	Date
Sample Assessor	23/03/23

Audio evidence:

- questions and answers: Audio is a separate file: Task 3b - Q&A visually assess condition of transport AUDIO (TC)

Commentary

Candidate showed adequate underpinning knowledge when checking the suitability of livestock for **transportation** but gave no explanation as to why this was. The explanations given regarding when explaining the actions to be taken when discovering livestock should not be **transported** were adequate but lacking in detail.

Assessor Observation - Task 3b

Task	Qualification number
Load and unload livestock onto and off transport	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Transportation

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Assessor - provided six sheep
• the appropriate techniques for loading and unloading sheep onto and off transport	**Load** The candidate: • lowered the trailer ramp • opened loading pen gates • went back and opened the ramp gates to the trailer and opened the partition gate in the trailer • used a sliding door to fill the gap between the trailer and the pen wall • placed a hurdle to fill the gap on the righthand side of the ramp gate but did not tie it • fully opened the loading pen gate and tied it back • walked around the sheep, herding them • vocally encouraged them up the ramp and into the trailer followed behind • secured the internal partition. • ramp gates – wrong way round then corrected • ramp was then closed • opened the sliding door and removed the hurdle away from

Assessor observation	Notes – *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	the right hand side • checked sheep through vents. **Unload** The candidate: • lowered the ramp • opened the ramp gates • did not tie the ramp gates back • didn't mention the fight zones to the cameraperson • went into the trailer, walked behind the sheep and encouraged the sheep to exit the trailer • followed the sheep into the pen and secured the holding pen gate.

Assessor signature	Date
Sample Assessor	23/03/23

Video evidence:

- load livestock onto transport. Video is a separate file: Task 3b - loading livestock onto transport (TC)
- unload livestock off transport. Video is a separate file: Task 3b - unloading livestock off of transport (TC)

Commentary

Candidate has demonstrated an adequate ability to use techniques when handling livestock for **transportation**. Techniques used were welfare oriented and showed adequate interaction with the sheep when loading. By not securing the gates to receive or offload the sheep, the candidate risked the sheep escaping. By staying in the trailer to assist the sheep to exit, the candidate did not use the safest method to handle the sheep in exiting the trailer.

Task 3c – Livestock production

Evidence contributes to the following:

Performance outcome	Assessment theme
PO4 Optimise livestock production	Production/routine production

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO4: Production/ Routine production		√	√
video(s)	PO4: Production/ Routine production		√	√

Assessor Observation - Task 3c

Task	Qualification number
The procedure for milking cattle • Set up milking equipment • Strip and inspect foremilk • Milk livestock • Clean down milking equipment	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Production/routine production

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*

• set up milking equipment
• strip and inspect foremilk and milk livestock
  ○ cleaning teats
  ○ strip and inspect foremilk
  ○ attach clusters and ensure cow is milked correctly
  ○ teat dipping/ spraying
• clean down milking equipment
	The candidate:
	• used the appropriate methods to set up and prepare milking equipment (pipework, filters, valves, taps, controls) in line with some of the protocols provided
	• checked vacuum dial and listened for the pulsation
	• didn't check the sprays/ dips were functioning
	• didn't check gates/barriers
	• assembled the milk filter and attached it to the pipework
	• cleaned the teats that looked as if they required cleaning but was not paying attention to the task
	• didn't strip or inspect the foremilk.
	• was not paying enough attention to the equipment around him
	• placed the clusters onto teats (on the 4th cow the equipment was crossed over so that a couple of the cups were on the incorrect teats).
	• candidate then moved onto the other cows and attached the clusters to the cows' teats.
	• corrected the 4th cow's cup placement. Waited for the cows to be milked. The clusters automatically applied the teat dip solution before the clusters were removed.
	• opened the gates and released the cows.
	• changed all the relevant controls into the washing position following the protocols.
	• washed the outside of the clusters and the pipeline to remove any dirt.
	• removed and washed the milk line filter -no sign of the candidate checking the filter.
	• completed the wash process according to the protocols.
	Following the cleaning process, the candidate opened all the taps to ensure that the system was thoroughly drained.

Assessor signature	**Date**
Sample Assessor	23/03/23

Video evidence:

- milk livestock (three cows min.) Video is a separate file: Task 3c - Milking Cows (TC)

Commentary

The candidate demonstrated an adequate performance that met sufficient requirements of the **routine production** task, demonstrating enough technical skills, techniques in the preparation of machinery and equipment to safely undertake tasks for setting up, carrying out and cleaning down in the milk production of livestock. Pre use checks of the gates, dips and pulsation were not completed. Neither were the cows' teats checked after the clusters had been removed nor was the milk filter checked for abnormalities. Whilst the candidate did not always pay attention to the task at hand e.g. the placement of the cluster on the 4th cow, they their working practices were carried out in a reasonably safe manner.

Task 3d – Livestock production

Evidence contributes to the following:

Performance outcome	Assessment theme
PO4 Optimise livestock production	Production/routine production

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observations	PO4: Production/ Routine production		√	√
video(s)	PO4: Production/ Routine production		√	√

Assessor Observation - Task 3d

Task	Qualification number
Handle a small group (6-10) of sheep into and through a race	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Production/routine production

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• use of appropriate, welfare friendly handling techniques to move the sheep through the race	The candidate • set the access gates to the race and handling pens leaving the exit gate open to the correct pen. • walked to the side of the sheep and attempted to move them towards the race vocally which resulted in a few sheep escaping back into the pen from the race and others not moving towards the race. • left the pen went to the side of the race and moved the sheep that were in there through the race. • made her way back to the pen, positioned herself to the rear of the remaining sheep and vocally and physically encouraged the remaining sheep to go through the race. • secured the race exit gate.

Assessor signature	**Date**
Sample Assessor	23/03/23

Video evidence:

- handle a small group (6-10) of sheep into and through a race. Video is a separate file: Task 3d - handle sheep through a race (TC)

Commentary

The candidate demonstrated an adequate level of performance that met the requirements of the **routine production** task by setting the access gates to enable the sheep to go through to the race. Adequate techniques were used to allow safe working practices. There was demonstration of an adequate understanding of human-animal interaction whilst applying safe and welfare orientated techniques. For example, when handling livestock the sheep moved through to the race a little quickly which, whilst acceptable, isn't ideal.

Assessor Observation - Task 3d

Task	Qualification number
Crutch or dag **two** sheep	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Production/routine production

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Assessor set requirements for keeping the sheep clean - battery electric shears and handpiece provided.
• appropriate handling techniques of equipment • crutching or dagging carried out safely without injury to sheep or candidate • crutching or dagging carried out to requirements	the candidate: • picked up the handpiece plugged in the battery but did not switch it on and off. • did not lubricate or check tension. • temporarily lost control of the sheep during the dagging process – the sheep struggled but was brought under control. • dagged the sheep by using small strokes - clean but untidy looking sheep. • did not check the sheep for the quality of the work • turned off the equipment. • released the sheep. the candidate: • picked up the handpiece to the machine and crutched 2nd sheep by removing excess wool and dirt from the tail and around the crutch in short movements without causing any

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	injury to the sheep (ok looking sheep in under 2 mins). leaving the sheep looking untidy. • did not check the sheep at all for dagging completion • turned off the equipment and placed the hand piece onto a nearby bale released the sheep.

Assessor signature	Date
Sample Assessor	23/03/23

Video evidence:

- crutch or dag one sheep. Video is a separate file: Task 3d - dag a sheep (TC)

Commentary

The candidate demonstrated an adequate level of performance that met the requirements of the **routine production** task by adequately dagging the sheep to an acceptable standard whilst they used adequate technical skills and techniques for carrying out routine husbandry task. The candidate did not check the equipment for lubrication or tension correctness. The technique/skill used was noted to be untidy. The candidate was not seen to check the sheep for completeness of task.

Assessor Observation - Task 3d

Task	Qualification number
Footbath a small group (6-10) of sheep	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Production/routine production

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	Notes – *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• appropriate movement and speed/ or duration of the sheep through/ or in the footbath	**Assessor** - The candidate was advised that this is a walkthrough product and the sheep must not remain standing in the product for longer than is necessary. The candidate: • released the sheep from the pen into the footbath race. The exit gate from the footbath was opened. • guided the sheep in small groups through the footbath solution without a smooth continuous flow of animals through the footbath.

Assessor signature	Date
Sample Assessor	23/03/23

Video evidence:

- footbath a small group (6-10) of sheep. Video is a separate file: Task 3d - footbath a small group of sheep (TC)

Commentary

The candidate demonstrated a satisfactory performance that met the requirement of the task by moving the sheep through the footbath using vocals, displaying adequate skill/techniques.

*This evidence in isolation provides minimal differentiation between grades, however it supports the candidate's ability to carry out **routine production** task for livestock production and are carried out with an understanding of the methods of safe working practices.*

Task 4a – Feeding and accommodation

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Health and welfare

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO3: Health and welfare		√	√
video(s)			√	√
photo(s)			√	√

Assessor Observation - Task 4a

Task	Qualification number
Prepare and mix feed for bottle feeding, and feed one animal using a bottle	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Health and welfare

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Assessor advised the candidate of the age of the lamb – one week.
• calculation of feed requirements (type and quantity of feed) as appropriate to the requirements of the sheep • preparation and mixing of feed (weighing out milk powder and mixing, removal of lumps in feed, checking temperature) • feeding sheep using a bottle (keep bottle at correct angle to ensure sheep is not taking in excessive air)	The candidate: • read the instructions on the back of the milk powder container and worked out how much powder was needed to mix up a feed (50g milk powder 200mls warm water). • used a scoop and weighed the correct quantity of milk powder for the feed for one lamb. • mixed hot water with cold water from the tap and dipped their finger in to test the temperature – missing the opportunity to get the milk to the correct temperature of 39 degrees C. • whisked the mixture. • poured the milk into a bottle and secured the teat. The candidate missed that there were a couple of lumps of powder left behind in the jug. • approached the lamb and held the bottle parallel to the floor at head height for the lamb. Whilst readjusting the bottle the lamb lost contact with the teat as the candidate did not hold it against the lamb's mouth. As the lamb approached the middle

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	to end of the feed, the candidate tipped the bottle up until the lamb was full/feed was completed.

Assessor signature	**Date**
Sample Assessor	23/03/23

Photo evidence:

The preparation of equipment and milk powder

The weigh scales showing powder weight.

Lumpy milk in the plastic jug

Milk being poured into the bottle.

Video evidence:

- feed one animal using the bottle. Video is a separate file: Task 4a - Feeding a lamb with bottle (TC)

Commentary

The candidate demonstrated an adequate performance that met the requirements of the **health and welfare** task, by measuring the milk and using the technical information correctly however, they missed feeding the correct amount to the lamb as lumps were left in the jug and did not check the temperature of the milk accurately with the thermometer.

During the feeding the candidate demonstrated adequate skills but missed the opportunity to hold the angle of the bottle correctly which could have resulted in the lamb taking in air, but this was corrected.

Task 4b – Feeding and accommodation

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Environment and accommodation

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO3: Environment and accommodation		√	√
photo(s)	PO3: Environment and accommodation		√	√

Assessor Observation - Task 4b

Task	Qualification number
• Prepare indoor accommodation • Measure accommodation to determine stocking densities • Measure available feed and water access	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Environment and accommodation

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Assessor has set up the candidate by providing the scenario of: A pen **The candidate is given an area to clean in the pen** • **The pregnant ewes are approximately 65kg to 80kg**
• ensuring environment is safe and free from hazards • use of hygienic techniques and biosecurity (disinfecting pens, foot dips) • use of hand tools (brush, shovel, fork) to prepare accommodation • appropriate use of measuring equipment to determine floor area	The candidate: • collected a fork, brush, shovel and wheelbarrow from outside of the pen and used the boot dip before entering • used the shovel and brush to pick up and clear debris from the pen. • sprinkled the pen with antibacterial product without checking the instructions on the packet. Heavy use of product. • used the wheelbarrow to collect straw to bed up the pen but did not shake out the wafers so it was quite compacted in places. • used a tape measure to measure the size of the pen recording that the pen was 6m by 12m which is 72m squared. (accurate) • used tape measure to determine the available feed barrier area.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• determine feed and water access	• checked the water trough to ensure that the supply was clean but did not check that it had an uninterrupted flow. • checked access to feed along the barrier. • checked the security of the enclosure by making sure the gate fastened correctly.

Assessor signature	**Date**
Sample Assessor	23/03/23

Photo evidence:

- using hygienic techniques (e.g., clean pen)
- applying biosecurity measures

Bio security measures being used on entry to the pen:
(simulated for this GSEM purpose only)

Commentary

The candidate demonstrated an acceptable performance that met the requirement of the task, using the correct tools and equipment for carrying out the preparation of the indoor **environment and accommodation**.

The candidate gave an adequate demonstration of the use of tools, by using the foot dip and antibacterial product but missed the opportunity to utilise the fork to break up the straw.

The candidate was accurate in the use of the measuring equipment recording and calculating the correct size of pen and used the measure to determine the available feed barrier area.

The candidate demonstrated an adequate understanding of animal welfare by providing bedding, checking that the supply of water and access to feed was available but failed to check that the water would have a clean supply.

Task 4c – Feeding and accommodation

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Environment and accommodation

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
report	PO3: Environment and accommodation	√		√

Candidate evidence - Written Report

Task 4c

Written report on the suitability of the accommodation, including any relevant calculations. (word count: 541)

Housing sheep during lambing and the winter months is a really important time. We have to make sure that housing is set up correctly and pens are the right size. Our hill ewes require 1.2 m^2 floor space because they weigh between 45-65 kg which is mid-size for ewes.

I have measured the pen with my tape measure and have found it to be 6m by 12m which would allow up to 60 ewes however, we are only going to use it for 50 ewes**.** (72/60=1.2m^2) This would mean more space for the sheep.

Pregnant ewes should be kept in groups of less than 50, this helps with identifying those that are lambing or lame.

A deep bed of clean wheat straw provides a really suitable surface to keep the sheep warm and dry. A stock person would need to put clean straw in every day in order to keep the sheep clean. Clean sheep are healthy sheep and injuries can be seen more easily.

Feed space:

Pregnant sheep need good access to feed to keep them healthy. This means having a ready supply of good food that is checked every day. Sheep can be fed using troughs but sometimes they can be fed on the clean straw using feed cobs.

If we were to use the trough method, I measured how much space the feed trough would take up in total and this worked out at about 40cm for each sheep to eat their food. This would be enough space for feeding silage or concentrate food to the ewes, dependant on what was being provided, without any of them being pushed out or harming each other in their delicate state.

Water space:

Pregnant sheep need good access to water to keep them healthy. This means having a ready supply of clean water that is a continuous supply and is checked every day to make sure that it is running freely and is not contaminated by any faeces.

Buildings:

The building has plenty of fresh air circulating to keep the sheep healthy and cool. This also stops the spread of disease amongst the sheep. There is a gap in the ridge which allows the warm air out but sometimes rain comes into the building. The roof looked secure, and the walls were stable enough to contain the sheep.

The build has sufficient handling areas inside so that the sheep can be checked and looked after if they become ill. The space allowed for this will be enough. This will help reduce stress and therefore increase stock health, welfare, and productivity. Handling systems should have

large pens for gathering and small pens for catching and handling, we shouldn't have to chase sheep round. Squeezes/clamps can be used to make certain jobs a bit easier. All pens should have lots of gates, metal gates can be cleaned.

30cm trough space is needed for hill sheep and 45cm trough space is needed for lowland ewes. This is because some breeds are bigger than others. It's the same for ring feeders too, big Texels need more space.

You can get things like CCTV now to help you watch your sheep during lambing and to help stop them from being stolen which can happen a lot.

Commentary

The candidate produced an adequate report that covered all elements of the brief but did not fully explain or justify their reasoning for the **environment and accommodation**. Most of the housing dimensions were provided, ventilation was included but they did not explain its importance to productivity and health. Whilst the measurement of the floor space is correct, the ratio of sheep to space was not accurate (the sheep's size determination was incorrect as they candidate was given a range of 65kg to 80kg ewes to base their findings on) and measurements were not used for the water supply. The measurements for the feed area were not correct making it too much for the area and sheep. Elements were missed, for example, the candidate needed to discuss the importance of ventilation and scanning in more detail as well as other areas. The candidate could have given further detailed explanations relating to the impact of having too many sheep in a given space.

Task 5a – Crop production

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Crop

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO3: Crop		√	√
photo(s)			√	√

Assessor Observation - Task 5a

Task	Qualification number
Take and test a soil sample for pH	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Crop

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• appropriate techniques used to take a representative soil sample (Depth, W pattern, areas to avoid, suitable timing)	The soil samples for testing were collected using a soil sampling spear. The spear wasn't checked for cleanliness prior to use. For most of the samples the spear was inserted at the appropriate depth for the crop being sampled, but for one of the samples the spear was inserted slightly deeper than recommended. Five individual samples were collected by walking in a 'W' shape across the field, but one of the samples was collected from an area very close to the bottom of a hedge. The samples were grouped into a clean plastic bucket but not mixed.
• testing a soil sample to identify the pH	The pH test was conducted using an industry standard pH testing kit. All kit components were checked and cleaned before starting the test. The test was conducted according to the instructions. The sample was left for the prescribed amount of time before being assessed against the colour chart. The pH reading was 7.0 neutral.

Assessor signature	Date
Sample Assessor	23/03/23

Photo evidence:

- collecting the sample

PH test:

Commentary

The candidate displayed and adequate level of skill in this **crop** task. The pH test was completed with adequate attention to avoid contamination of the sample.

In most instances, the candidate avoided areas of the field which might have given a false reading by avoiding areas of the field that were not representative, but in one case a sample was taken rather close to the edge of the field near a hedge which could have affected the overall result.

Whilst testing for the pH, the candidate mitigated potential risks with the kit by applying adequate control measures during the task for example cleaning and checking the kit components before use.

Task 5b – Crop production

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Crop

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
proforma with images	PO3: Crop	√		√
Written report	PO3: Crop	√		√

Candidate evidence - Proforma with images

Fig 6: Plant identification (for use with task 5b)

Candidate's name	**Sample Candidate**	**Enrolment number**	**CG12345**
Task / Activity	Plant Identification	Location	Sample Centre
Assessor's name	Sample Assessor	Date	23/03/2023

Ref:	Image:	Common Name:
Grass 1		ryegrass

Ref:	Image:	Common Name:
Grass 2		Timothy

Ref:	Image:	Common Name:
Legume 1		red clover

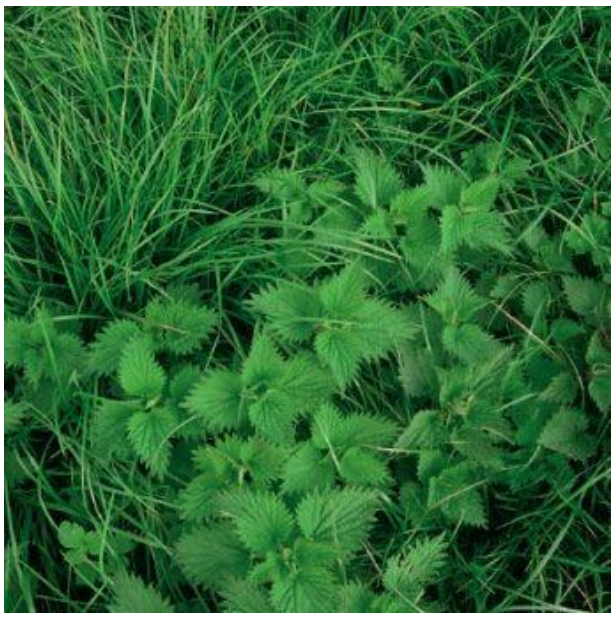
Ref:	Image:	Common Name:
Legume 2		white clover

Ref:	Image:	Common Name:
Forage 1		turnip

Ref:	Image:	Common Name:
Forage 2		beet

Ref:	Image:	Common Name:
Weed 1		thistle

Ref:	Image:	Common Name:
Weed 2		dock

Ref:	Image:	Common Name:
Weed 3		Stinging Nettle

Candidate evidence - Written Report

Potential impact of invasive plants on livestock (word count: 482)

Some of the worst invasive plants include Ragwort, Japanese Knotweed, Giant Hogweed, and Himalayan Balsam.

Ragwort grows in grassland is a plant with bright yellow flowers which must control the plant by law. When the plant is alive and growing it tastes horrible and the livestock won't eat it. When the ragwort starts to die it becomes palatable. If it is eaten, livestock can be poisoned and die. The farmer should take the livestock out of the field and pull the ragwort out by hand and collect it together and burn it. This will mean that there is less grass for the livestock to graze while the field has been shut off. The farmer could be prosecuted and have to pay a fine if it is not controlled. The other costs could be manual labour for pulling the plant out or the cost of applying a pesticide.

Japanese Knotweed can be seen all over the country it is very invasive and can spread very easily. Japanese Knotweed can get onto your farm by being brought in by accident, it is deep rooting and can quickly cause damage to building foundations. The plant spreads by using its underground rooting system and so can be spreading before you have realised. It is law to control the plant if you find it on your farm. It is better to ask a proper contractor to come in and deal with the weeds probably using a pesticide and then when it has died, they will take it away and make sure it is burnt. Both methods are expensive. During control and removal, livestock would have to be kept out of the area and this would mean that there would be less grass for the livestock to graze.

Giant Hogweed is a very tall plant which has big white flowers. It has a strong stem and very large leaves. The plant is often found in the wetter places on the farm and near to rivers and streams. The plant will overshadow other smaller plants and cause them to die it is a very dangerous plant because if you touch it, you can be injured and come up in a blister which may last for a long time.

Himalayan Balsam is a large annual plant which was imported. The plant grows quite big and will overshadow other grasses. It can grow in a wide range of soil conditions; it can tolerate semi-shade and is mainly found on riverbanks and other damp spaces like wet areas. The plant needs to be cut off and taken away before the seeds are shed so that they grow back again next year. Sometimes there will be some new plants which grow later in the year, if this happens it will be necessary to re-treat the area. It is important to cut the plants off so that they can be removed from the area.

Commentary

The candidate has correctly identified the images on the proforma, but they did not always give the full name of the plant.
The candidate has identified several invasive plants for this **crop** task. The information supplied has included reasons why the plants are a problem in agriculture, and how to control them showing an adequate understanding of the impact of invasive plants. The candidate has said that there are laws in place to ensure that certain invasive plants are controlled. The candidate has also mentioned that there could be additional costs relating to the different methods of control used for some of the plants.

There is adequate detail indicating the reasons why the plants must be controlled. The candidate has included the fact that the plants are very strong and will overpower other species and the result would be less area to be grazed; there could be harm caused to the livestock either by being poisoned or hurt. The candidate didn't always specify the legal requirements relating to the control of the plants. The candidate has not given the effects on livestock or agricultural ground for all of the plants.

Task 5c – Crop production

Evidence contributes to the following:

Performance outcome	Assessment theme
PO3 Rear livestock from birth to production standard	Crop

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
written report - grass ley	PO3: Crop	√		√
written report - cereal crop	PO3: Crop	√		√

Candidate evidence - Written Report

Written plan for establishing a new grass ley in a field for grazing sheep and conservation. (word count: 617)

The field consists of a medium loam soil type and the previous crop was Winter barley which was harvested in late July; the straw was baled up for bedding. The field would be ploughed and then power-harrowed to produce a seedbed to a depth of 75mm. This would provide a good seedbed for a grass and clover mix. There might be weeds and winter barley starting to grow and if they did it would have to be sprayed off with Roundup before the new seeds were drilled.

The chosen mix for the grass ley is a 24kg/ha mix containing; 8kgs/ha tetraploid hybrid ryegrass, 12.80kgs/ha perennial ryegrass, 2kgs/ha Timothy, and 1.2kgs/ha white clover. The seeds would be drilled and then rolled to conserve moisture. This mix is ideal for an early start, will grow well throughout the year. With the clover in this makes it very good for lamb production and also suitable for hay and silage it would last for approx. 3 years. The seeds would require sowing in August or September into a moist seedbed which was weed free.

The new ley would be left to grow through the autumn and into the winter. This would allow it to become well established before the spring. The grass could be grazed in the early spring and then sheep taken off to allow it to grow on for cutting for a hay crop in July. The aftermath could then be grazed into the autumn and winter.

Alternately the grass could be left to grow through the spring and cut for silage in May and then allowed to grow back again to be grazed from about July right through to the winter. If the farmer wanted to the grass could be cut for silage in May and then left to grow up again for cutting again for hay in late July early August. Following the hay crop being taken the grass could also be grazed through the autumn and winter period.

The crop should need some Nitrogen fertilizer in March and would be given 50kgs/ha. It would also want about another 25kgs/ha applying during the summer between the silage and hay crops being taken or between the grazing and hay crop being taken depending on which option was decided. The grass has white clover in the mix which would supply a large amount of Nitrogen into the sward which should provide enough nitrogen in the following years once the grass was established.

The sowing of grass seeds in the autumn can sometimes be difficult because the weather can sometimes be dry and the seeds don’t germinate well. The seeds should be sown into a moist, crumbly but also a firm seedbed. A check should be made on the weather forecast to make sure that rain is likely within a fortnight to help the seeds to germinate. The grass seed is drilled between 5mm and 15mm deep and then harrowed to cover the sown seeds. The sown crop will then require rolling in order to make sure that the soil is pressed around the seeds to protect them and also to help them to grow. In the spring the grass should be harrowed and then rolled in preparation for mowing.

As White clover has been used in the ley the best form of weed control would be to have a clean seedbed before drilling and make sure that that sowing takes place at a suitable time for a strong establishment. Sheep could also be used to graze the crop during the autumn and winter.

Records would be kept for any fertiliser and pesticides used. It would be best that these records are kept up to date continually throughout the process.

Candidate evidence - Written Report

Written plan for establishing a cereal crop, in a field, which will be harvested for the grain and straw. (word count: 439)

The field is a medium loam soil type, and the previous crop was forage maize, and this was harvested in early October. The maize stubble which was left after harvesting would be cut short with a flail topper to get rid of it. The field would then be firstly cultivated with a Sumo Trio cultivator which would break up the compaction work it down and then press it to retain moisture.

The wheat will require sowing as soon as possible and in order to do this the soil needs to be worked down to a good tilth using either a power harrow or a multi-cultivator. To have a successful germination the soil needs to be broken down well and not have any clods it also should be moist to allow for compaction around the drilled seeds. The wheat will be drilled at a depth of 20-40mm harrowed and then ring rolled to provide sufficient compaction.

The farm has a four-year rotation of Maize followed by 2 years Winter wheat, then Winter barley and back to Maize.

The wheat variety chosen for this cropping is Thunderbolt which is a high yielding feed wheat and the reason for choosing this variety is to grow a high yielding low-cost wheat for maximum profitability. The straw would be baled into round bales and used on the farm as bedding for livestock. The wheat would be sown at a seed rate of about 155kg/ha if drilling was completed by mid-October. If the sowing date was delayed, then this would need to be increased up to possibly 195kg/ha for drilling into November.

Aiming for an average yield of 8.5 tonnes/ha the total fertilizer required would be a combination of 45kg/ha Phosphate, 70kg/ha Potash applied in the seedbed and 160kg/ha Nitrogen split with 40kg applied mid-end Feb, 60kg/ha applied early April, 60kg/ha applied end of April. Fertiliser use, particularly Nitrogen, is average due to the choice of growing a feed wheat.

The pre-emergent herbicide used would be Liberator which will control both grass and broad-leaved weeds. If it’s a very wet season slug control may be needed so checks would have to be made to see if any were around and if so, would they need controlling. The best product available for controlling slugs is called Sluxx.

There would need to be field records kept recording the seed, fertiliser and pesticides used. All records will have to be kept up to date and available for checking.

The following records would be needed: - Seed label including lot number and dressing, Nitrogen, Phosphate and Potash Fertilizer use, Pesticide records for pre-emergence herbicides and slug pellets if required.

Commentary

The candidate has provided two written reports which show a reasonable understanding of the requirements for **crop** preparation and rotation. There is an acceptable rotation, and a justifiable procedure has been put forward for establishing both **crops**.

The candidate has chosen suitable varieties of wheat and a reasonable grass seed mix. There are seed rates given fertilizer types and amounts and possible pesticide use. The report is lacking in detail regarding the thousand grain weight which would help to calculate the sowing rate of the wheat and there is no mention of any trace elements being required such as Sulphur.

Task 6 – Machinery and equipment

Evidence contributes to the following:

Performance outcome	Assessment theme
PO4 Optimise livestock production	Machinery and equipment

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
pre-Use Checklist	PO4: Machinery and equipment	√		√
assessor observations	PO4: Machinery and equipment		√	√
video(s)	PO4: Machinery and equipment		√	√
photo(s)	PO4: Machinery and equipment		√	√

Candidate evidence - Pre-Use Checklist

Candidate's name	Sample Candidate	**Enrolment number**	CG12345
Task / Activity	Pre-Use Checklist	Location	Sample centre
Assessor's name	Sample Assessor	Date	23/3/23

Agricultural Tractor

Pre-Use Check:	**Check Completed (Tick):**
Fuel level checked	✓
Coolant level checked	✓
Engine oil level checked	✓
Hydraulic oil level checked	✓
Horn	✓
Front and rear lights working	✓
Direction indicators clean and undamaged	✓
Cab glass clean and undamaged	✓
Mirrors clean and undamaged	✓
Visual checks to wheels and tyres	✓

Park brake working	✓

Tractor Mounted Front-End Loader

Pre-Use Check:	Check Completed (Tick):
Loader attachment pins	✓
Hydraulic pipes	✓
Couplings	✓
Loader controls	✓

Remember to check in the operator's manual as to how often to carry out checks, and if anything is wrong with the tractor or front-end loader, report it to your supervisor.

Commentary

The candidate completed an adequate pre use check list covering both the tractor and the loader. Adequate checks are included as would be expected when completing a pre-use check for **machinery and equipment**.

The **machinery and equipment** checks include tractor fluids plus lights, direction indicators, wheels. Visibility checks have also been completed. Safety aspects were completed for the brakes.

The loader was adequately checked for connection pins, pipes and operational controls but other checks that could have been made where not carried out e.g. check for oil leaks.

The completed pre use check list shows that the candidate has an adequate understanding of the checks which are required prior to using tractor and loader **machinery and equipment**.

Assessor Observation - Task 6

Task	Qualification number
Use mechanical equipment to load and unload **four** large bales of forage or straw on and off a trailer	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Machinery and equipment

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• optimum use of available area • safe use of mechanical equipment • smooth operation of controls • loads placed in specified positions • tractor left in a safe position after use • all round observations throughout	The candidate: • climbed into the loader tractor facing forwards using the hand holds and the steps, start the tractor up and lift the loader forks off the ground. • completed all round observation, engage gear and released the park brake, the candidate kept the loader close to the ground during travel and only raised it up to pick up the bales and put them on the trailer. • loaded four large square bales onto the trailer two onto the left and then two onto the right causing the trailer to be put under unnecessary strain. When loading the first bale it took two attempts to get the bale fully onto the trailer. • maintained a degree of all round observation throughout the task and some of the controls were operated a bit jerky. • steered the tractor movements wide causing more space to be used than was required, this made the task take longer. • took two attempts to get each of the last three bales off of the trailer but succeeded safely. • parked the tractor in a safe position placing all the controls in neutral, applying the park brake, lowering the loader, stopping the tractor, and removing the key. • stepped down from the tractor facing outwards, using the steps, jumping off the bottom step onto the ground.

Assessor signature	Date
Sample Assessor	23/3/23

Video evidence:

- use mechanical equipment to load and unload **one** large bale of forage or straw on to a trailer.
    - loading. Video is a separate file: Task 6 - load one large bale (TC)
    - unloading. Video is a separate file: Task 6 - unload one large bale (TC)

Commentary

The candidate completed an adequate demonstration to show the safe operation of a loader tractor. The candidate's actions clearly showed adherence to health and safety legislation and regulations within this task for **machinery and equipment**.

All observational safety checks were completed prior to starting, the loader was operated safely, and the candidate ensured that the loader remained low whenever possible to maintain stability.

The machinery movements were not always smooth, incurred unnecessary travel and wasted time. The candidate used all round observations most of the time.

The bales were loaded onto the edges of the trailer causing a slightly unbalanced load. The candidate required two attempts to remove the bales from the trailer when placing them back in the building at the end of the task. The candidate used Safe Stop procedure when the tractor was parked.

Assessor Observation - Task 6

Task	Qualification number
Hitch a trailer to a tractor and reverse the tractor and a trailer into a confined area	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Machinery and equipment

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• tractor aligned with trailer • correct and safe use of hitching mechanism • accurate manoeuvring when reversing into a confined area • smooth operation of controls • tractor left in a safe position after use • all round observations throughout	The candidate: • climbed into the tractor facing forwards used the hand holds and the steps, started the tractor up • completed all round observation after starting engine • engaged gear and released the park brake • aligned the tractor to the trailer and then reversed to within about a metre of the confined space • operated the hydraulic controls, released the pickup hook and lowered it to the ground. • reversed up to the trailer with the hook touching on the ground. • operated the hydraulics to raise the hook up but missed the trailer drawbar ring. • attempted to reverse up to the trailer a second time but again missed the ring. • had a third attempt which was more accurate and raised the hydraulics until the hook clipped into place but left the weight of the trailer on the hydraulics. • completed safe stop and stepped down from the cab facing outwards, stepping down off the bottom step, connected the trailer brakes and disengage the trailer park brake. • operated the tractor and trailer in a jerky manner in both directions, they required three attempts to reverse into the prescribed confined area.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	• parked the trailer as instructed, raised the hydraulics, released the pickup hitch, and the trailer drawbar was lowered to the ground • dismounted the tractor, applied the trailer park brake, disconnected the trailer brakes. • raised the hydraulics to secure the hitch and left them there which meant the hydraulics could be under strain. All round observation was not maintained throughout the task and the operation of the controls was not as smooth as it could have been although it was safe. • the tractor movements were not very accurate, and this resulted in the candidate using a lot of space to operate in. The tractor was left in a safe position but not very straight, all the controls were placed in neutral, the park brake was applied, the tractor stopped, and the key removed. • The candidate stepped down from the tractor facing outwards using the steps but jumping down off the bottom step.

Assessor signature	Date
Sample Assessor	23/3/23

Video evidence:

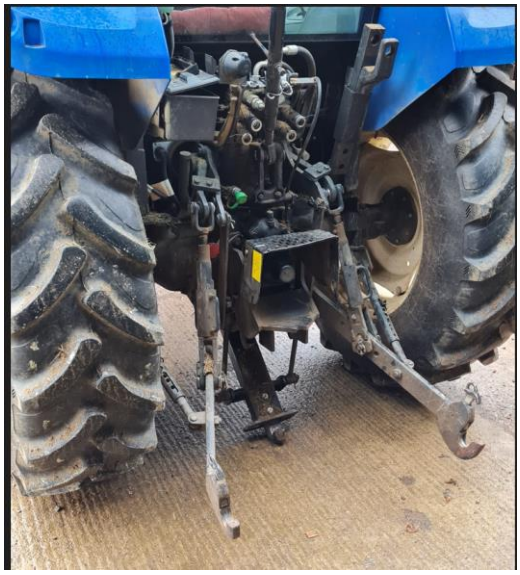
- reversing the tractor into a confined area. Video is a separate file: Task 6 - reverse tractor confined area (TC)

Photo evidence:

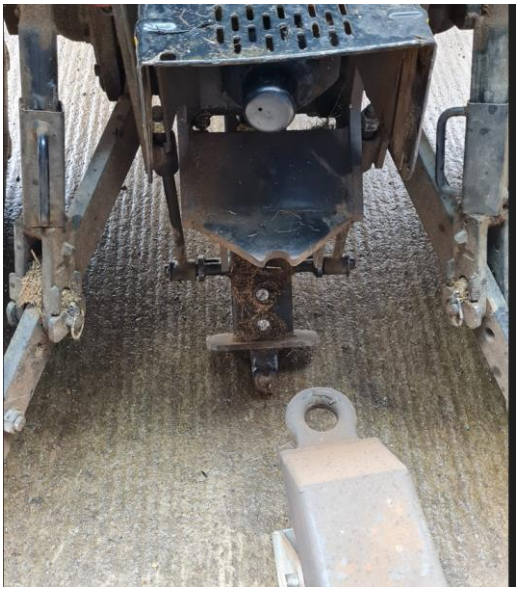
- trailer hitched to tractor.

1.Trailer park brake is on

2. Pick up hitch released and lowered to touch the ground



3. Tractor reversed towards trailer but is off centre



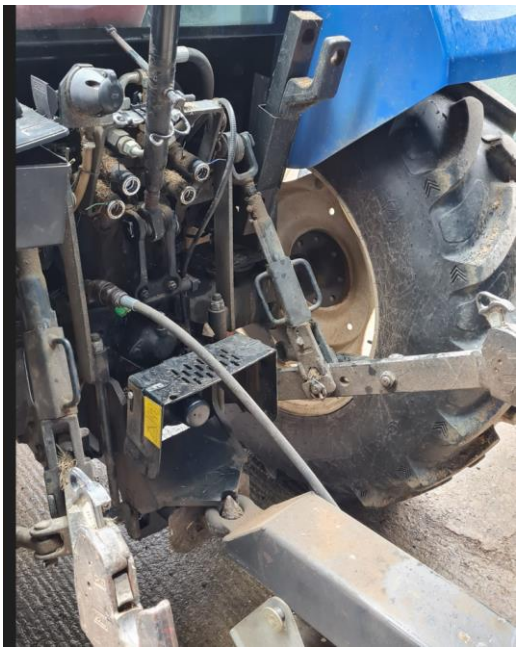
4. Pick up hook is off centre to the left of the trailer ring

5. Pick up hook is off centre to the right of the trailer ring 2nd attempt

6. The pick up hook now centralised

7. Hook raised and latched but hydraulics have been left under pressure

8. Brake pipe connected



9. Park brake off

Commentary

The candidate displayed adequate preparation of **machinery and equipment** to safely undertake tasks, applying control measures during tasks.

The trailer was reversed into a confined space at the third attempt. The tractor controls were adequately operated with the candidate using all round observation most of the time. The candidate showed adequate completion of the task by taking 3 attempts to reverse and hitch up to the trailer. The candidate operated the pick-up hitch correctly but once it had locked into place, they didn't lower the hydraulics to take the pressure off the system. The trailer brakes were connected but the lights were not.

The trailer was adequately parked in the agreed place with Safe Stop procedure being observed.

Assessor Observation - Task 6

Task	Qualification number
Operate a diet feeder to feed livestock	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Machinery and equipment

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• correct use and smooth operation of controls • accurate driving and even distribution of feed • tractor left in a safe position after use • all round observations throughout	The candidate: • lined up the tractor and diet feeder a bit too far away from the feed barrier • initially travelling too quickly causing insufficient feed to be distributed. • overcompensated steering correction • adjusted the position to bring the feeder closer to the barrier • drove the tractor adjusting the forward speed to give a more even distribution of feed • made a couple of corrections to position of diet feeder made to distribute the feed more evenly • distributed the required amount of feed • maintained sufficient observations • parked the tractor and diet feeder in a safe place after use (feed still in the feeder so safe stop procedure not fully implemented).

Assessor signature	**Date**
Sample Assessor	23/3/23

Video evidence:

- operate a diet feeder to feed livestock. Video is a separate file: Task 6 - operate a diet feeder (TC)

Commentary

The candidate completed an adequate operation of **machinery and equipment** using the diet feeder showing a sound understanding of the requirements to enable an adequate feed distribution. For example, all round observation was maintained. A better distribution of feed was achieved once the position of the feeder and forward speed of the tractor was corrected. All round observation was maintained sufficiently for the candidate to make changes to the way they were operating the diet feeder to provide an adequate feed distribution. At the end of the process the tractor and machine were parked up correctly and left in a safe place. It was noted that the Safe stop procedure was not fully implemented due to feed being in the diet feeder this is adequate for this task.

Task 7a – Estate maintenance

Evidence contributes to the following:

Performance outcome	Assessment themes
PO5 Maintain areas surrounding the livestock production environment	Health and safety Plan boundary maintenance

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
written report	PO5: Health and safety PO5: Plan boundary maintenance	√		√

Candidate evidence - Written report with diagram **(word count: 384)**

Task 7a) Plan a permanent stock proof boundary.

The new fence installation on a level site will consist of stock netting and two strands of barbed wire, to ensure that the fence is sheep proof. The stock netting and barbed wire will be attached on the inner side of the boundary (occupied property side) because the stock will push from this side.

Materials and specification

The first strand of barbed wire will be positioned close to the top of the stock netting (50mm above).

The second strand of barbed wire provides additional height to the fence and will be positioned 100mm above the first strand of barbed wire and 50mm down from the top of the post. This will prevent the top of the post from splitting when the staples are inserted.

Barbed staples will be used to attach the stock netting and barbed wire. These will have better retention than non-barbed staples.

The following materials will be required for the installation (all prices excluding VAT):

Item:	Quantity:	Price Each:	Total Price:
Straining post	3	£30.81	£92.43
Strut	4	£8.00	£32.00
Intermediate post	50	£4.10	£205.00
Stock netting (100m roll)	2	£76.67	£153.34
Barbed wire (200m roll)	2	£27.43	£54.86
Staples (20kg tub) £40.00	4kg	£40.00	£40.00
TOTAL:			£577.63

The exact specification for the materials is provided on the plan on the next page.

Environmental considerations, legislation and codes of practice

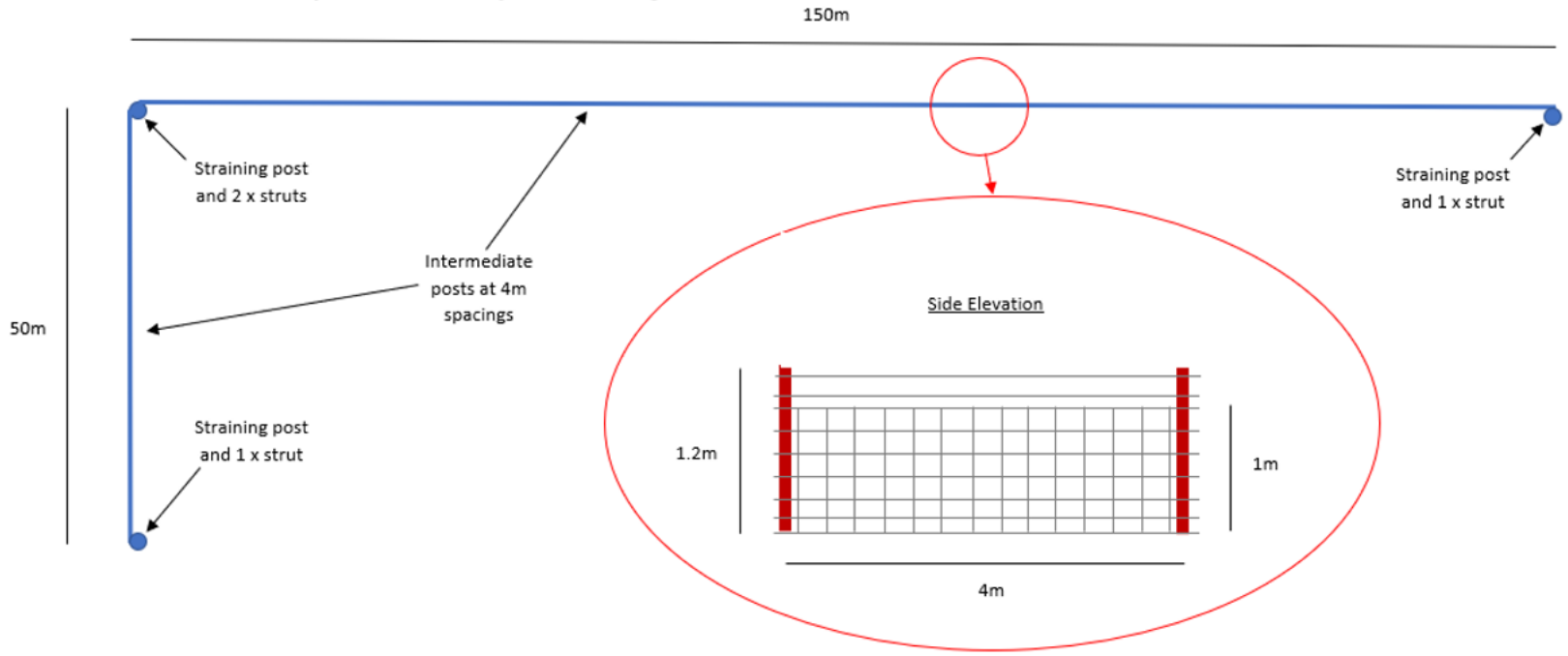
Prior to installation a full site survey will be carried out to check that the ground is suitable for driving posts into and it's not too wet which would mean a lot of damage to the soil which is not good practice.

Any equipment used for fence installation will be thoroughly checked prior to use to ensure safety and suitability for the task. Any defective equipment will be reported and repaired or replaced prior to use. If this does not happen then this could result in an accident or injury.

Wooden fencing posts will be purchased from sustainable sources. Suppliers will have Forest Stewardship Council (FSC) certification. If they don't, no more trees will be planted were the wood for these was cut down.

All items of waste arising from the fence installation will be disposed of via a licensed commercial waste disposal contractor. A copy of waste transfer documentation must be retained as evidence of the legal transfer of waste.

Plan a permanent stock proof boundary



Material Specification

Straining posts = 2.1m long, 125-150mm diameter (0.9m in ground)
Struts = 2.7m long, 75-100mm diameter (approx. 0.7m in ground)
Intermediate posts = 1.65m long, 75-100mm diameter (0.45m in ground)
Stock netting = C8/80/15
Barbed wire = 2mm wire gauge
Staples = 40mm barbed

Commentary

The candidate has produced an adequate report and plan for the fencing, with some justifications for their approach.

The candidate's **planning of boundary maintenance** showed that the requirements of the fence have been considered so the materials are mostly appropriate to the brief, but justification for the positioning of the wires is not given. The quantities and costs are mostly accurately calculated e.g. they didn't allow for the strainers when calculating the number of intermediate posts. The 4m intermediate post spacing is not ideal for mild steel stock netting fencing as the tension in the wire can be slackened at a faster rate over time by livestock putting more strain on the posts and ultimately the fence may not have the same longevity.

The plan is adequately communicated through the report and accompanying partially annotated diagram. The diagram shows sound understanding of the techniques used to maintain a fence, however they have not suggested how the struts would be fitted.

The candidate's consideration of the environment and legislation is general and the candidate comments without recognising specific waste disposal categories or the legislation applicable to the fence post treatments. They have missed consideration of site uses, such as rights of way which might impact the planned fence build.

The candidate has made little consideration related to malpractices appropriate to the task and could have included ethical, illegal and inefficient malpractices e.g. the risk of prosecution etc for non-compliance with legislation or for an obstruction of a right of way.

The candidate has used adequate knowledge and understanding of **boundary maintenance** to create a plan for a fence that would meet minimum industry requirements.

Task 7b – Estate maintenance

Evidence contributes to the following:

Performance outcome	Assessment themes
PO5 Maintain areas surrounding the livestock production environment	Health and safety Carry out boundary maintenance

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
risk assessment	PO5: Health and safety	√		√
assessor observations	PO5: Carry out boundary maintenance		√	√
photo(s)	PO5: Carry out boundary maintenance		√	√

Candidate evidence - Risk assessment

Fig 4: Risk Assessment (for use with task 1a and task 7b)

Candidate's name	**Sample Candidate**	**Enrolment number**	**CG12345**
Task / Activity	Boundary Maintenance	Location	Sample Centre
Assessor's name	Sample Assessor	Date	23/03/23

Item no.	What are the hazards?	Who might be harmed and how?	What precautions are already in place?	Risk rating (High / Medium / Low)	What further action is necessary?	Action by who and when?	Final risk rating (High / Medium / Low / Trivial)
1	Uneven Ground	Candidates - slips and trips	Visual checks to identify any trip hazards.	Medium	Mark up and avoid any trip hazards identified.	Candidates	Low
2	Post bumper	Candidates - Impact injury.	Candidate familiar with the correct and safe use of equipment	low			Low
3	Barbed wire straining	Candidates - cuts and possible wire whipping	Use of wire strainers, gloves and eye protection	Medium	Avoid over tensioning the wire	Candidates	Low
4	Stapling netting and barbed wire	Candidates - flying staples, impact from hammer, cuts from barbed wire	Use of gloves and eye protection	Medium	Hold the staples firmly and tap carefully with the hammer	Candidates	Low

Date: 23/03/23	Risk assessment carried out by: Sample candidate

Commentary

The candidate has completed an adequate risk assessment which has given the main onsite hazards associated with **health and safety** whilst completing this boundary maintenance task and those likely to be affected. The candidate has identified the risk level and the control measures already in place. The candidate has not always thought about additional hazards that may be present in the working environment such as manual handling issues and the possibility of using mechanical aids. Where additional control measures have been identified, the overall risk has been lowered accordingly.

Assessor Observation - Task 7b

Task	Qualification number
Safely undertake the installation of a 6 metre section of stock proof fence with stock netting and two strands of barbed wire above the stock netting	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO5: Carry out boundary maintenance

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• correct selection of tools, equipment and machinery • demonstrating safe and efficient use of hand, power and/or mechanical tools appropriate to the task • post placement: depth, vertical, spacing, in line with marker • netting: tensioned, attachment (number and depth of staples) • barbed wire: tensioned, attachment (number, position, and depth of staples)	The candidate: - • selected the following equipment for the task: a tape measure, spirit level, posts, barbed wire, stock netting, staples, nails, hammer, wire tensioner, length of metal tube, string line, spade, soil compactor, wood chisel, mallet, drive-all, gloves, goggles, hard hat. • checked the following tools only: wire tensioner, soil compactor, drive-all • laid out a string line where the fence was to be built. • laid out intermediate posts at approx. 4m and then knocked in with a drive-all giving instructions to their assistant to hold the drive-all securely with both hands on one side of the drive-all (making the drive-all unbalanced). • visually checked the posts for being upright. The height to the top of the posts was estimated to be 1.2m.(measured and the posts had a few cms difference in height) • rolled out the netting from the strainer post to the first intermediate post and stapled the wire in place to hold the netting before securing one end of the wire to the strainer post.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	• then rolled out the netting the full length of the fence and tensioned it to be upright against the posts on the livestock side of the fence in preparation for stapling. • used barbed staples on all horizontal wires with the staples driven in vertically and tight on the wire. The netting was secured to the posts giving an approx. height to the top of the netting of 1.0m. • secured the loose end of the barbed wire to the strainer approximately 50mm above the top of the netting (candidate visually estimated this). • instructed the assistant to help them to roll out the first length of barbed wire along the fence using the metal tube which was placed through the centre of the barbed wire roll. The candidate and assistant held either end of the tube whilst unrolling the barbed wire. • secured the barbed wire to the strainer post and tensioned it before fixing to each intermediate post approximately 50mm above the stock netting. (candidate visually estimated this). • rolled out the second length of barbed wire along the fence in the same fashion as the first, secured it to the strainer approximately 50mm above the top of the first length of barbed wire (candidate visually estimated this) and tensioned it. All staples were fixed in vertically and hammered in tightly onto the barbed wire. Whilst the measurements where visually checked for the post height and the netting and wire placement, the integrity of the fence was not affected by the small variations which occurred. Intermediate posts at 4m spacings were fairly straight and the wire mesh was level. The barbed wire above the mesh was fairly taut, level and correctly distanced.

Assessor signature	**Date**
Sample Assessor	23/03/23

Photo evidence:

- the finished fence
    - photo of the finished boundary: full section, sample of post (vertical), sample of wire attachment (including staple), wire straining equipment (how wire was tightened)

The Photograph shows:

Section of the completed fence including the strainer post and supporting strut.

The Photograph shows:

Intermediate posts at 4m spacings and the wire mesh and the barbed wire attached.

The staples are vertical in the fence post and on every horizontal wire.

The strainer in place

Stock netting clamp and strainer in place

These pictures are for illustrative purposes only and are not of the same stretch of fencing and may have the same pictures as used in the distinction.

Commentary

The candidate demonstrated an adequate level of performance that meets the requirements of the task **to carry out boundary maintenance**.

The interpretation of technical information was adequate as the measurements carried out between posts and for post height were approximate and were not measured out using the tape measure but visually carried out. The candidate chose additional tools e.g. mallet and chisel which were not required for this task. The wire was correctly tensioned before being stapled to the fence. The staples were inserted vertically which is more likely to cause a split in the timber and the staples were also hammered in too far which would lead to possible damage of the wire. The candidate did not use the tape measure when checking the height of the positioning of the barbed wire which resulted in a fence that was adequately constructed. The spacing at 4m follows the plan but this can cause the fence to have points of weakness in the middle over time which allows livestock to weaken the fence over time.

The candidate could have made better use of the assistant for example by asking them to help with laying out and could have given clearer instructions for use of the drive-all.

Assessor Observation - Task 7b

Task	Qualification number
Dispose of waste materials appropriately	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO5: Carry out boundary maintenance

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• Process for waste disposal followed • Waste separated and segregated and put into correct containers/ sacks.	The candidate carried out the waste disposal as follows: • metal stock netting/barbed wire offcuts were stored safely for disposal as scrap metal via a licensed commercial waste disposal contractor in the correct bin containers (tape banding clips were not included) • plastic tape bandings (and clips) used to bind bundles of posts were safely stored pending disposal and disposed of via a licensed commercial waste disposal contractor in the correct bin containers

Assessor signature	**Date**
Sample Assessor	23/03/23

Commentary

The candidate met the requirements for dealing with waste materials by segregating the different types of waste materials and preparing them for disposal. The candidate included the paper with the treated timber offcuts which is acceptable but not the best option, and missed the opportunity to dispose of the tape banding clips into the labelled bin containers. The candidate applied an adequate understanding of how to **carry out boundary maintenance** in this task**.**

Task 7c – Estate maintenance

Evidence contributes to the following:

Performance outcome	Assessment theme
PO5 Maintain areas surrounding the livestock production environment	Carry out boundary maintenance

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO5: Carry out boundary maintenance		√	√
photo(s)	PO5: Carry out boundary maintenance		√	√

Assessor Observation - Task 7c

Task	Qualification number
Check a ditch and drain outfalls to ensure free flow of water Safely carry out remedial work using tools and equipment as appropriate	8717-403
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO5: Carry out boundary maintenance

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
○ correct selection of tools, equipment and machinery ○ correct pre-use checks on tools, equipment and machinery	The candidate selected: • Tools for the task, including the appropriate pre-use checks. • drain rods – used for inserting into drain and extracting the blockage (vegetation). Drain rods were checked for damage prior to use. • slash hook – used for cutting overgrown vegetation around the area adjacent to the drain outfall. Checked to ensure that the head and handle were attached.
○ safe and efficient use of tools, equipment and machinery as appropriate to the task	The candidate: • checked area for other people before starting work. • ensured they had a stable footing prior to using the slash hook. • removed the excessive vegetation from around the outfall using the slash hook. • left the vegetation quite tall (could have been cut closer to the ground). The cut vegetation was left where cut; risk of being carried further down the ditch to the next narrow outfall.

	• cleared the blockage from the drain using the drain rods. mostly rodding in a forward/backwards movement. • turned anti-clockwise at times, however the rods did not come apart. No damage by the candidate • cleaned and stored all equipment after use. Outcome was a free flowing drain and ditch.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photo evidence

'Before' and 'After' the candidate has undertaken the task: whole area.

Before the candidate has undertaken the task: whole area.

After the candidate has undertaken the task: whole area.

Commentary

The candidate applied an adequate understanding of how to **carry out boundary maintenance** to clear the drain to an adequate standard, with the ditch flowing. The candidate could have considered **boundary maintenance** needs by moving the cut vegetation so that it could not be carried by water flow to block the ditch farther down.

The candidate selected an adequate range of tools and equipment to **carry out the boundary maintenance** task, recognising the need to cut the vegetation and clear the blockage. The candidate could have selected tools and equipment which would have produced a better result, e.g., a spiral attachment for the drain rods, and a prong to move the waste vegetation away from the ditch. All tools and equipment were checked before use.

The candidate worked safely throughout the task, for example wearing appropriate PPE, checking the area for other people before starting work and making sure they had a stable footing before swinging the slash hook.

The candidate used the tools and equipment with adequate knowledge and skill. For example, they used the drain rods in a rodding movement which is less effective than turning the rod with a spiral attachment, and the vegetation could have been cut lower to achieve better clearance and flow of water.

Task 7d – Estate maintenance

Evidence contributes to the following:

Performance outcome	Assessment theme
PO5 Maintain areas surrounding the livestock production environment	Carry out boundary maintenance

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO5: Carry out boundary maintenance		√	
photo(s)	PO5: Carry out boundary maintenance		√	

Task 8 – Environment and accommodation

Evidence contributes to the following:

Performance outcomes	**Assessment themes**
PO2 Establish conditions for animal breeding	Breeding
PO3 Rear livestock from birth to production standard	Environment and accommodation

Evidence	**Assessment themes**	**Candidate producing**	**Assessor producing**	**Included in this version of GSEM**
calculations of annual breeding performance	PO2: Breeding	√		√
an annotated (A3 size) plan of the units	PO2: Breeding PO3: Environment and accommodation	√		√
written report	PO3: Environment and accommodation	√		√

Candidate evidence - Calculations of breeding performance

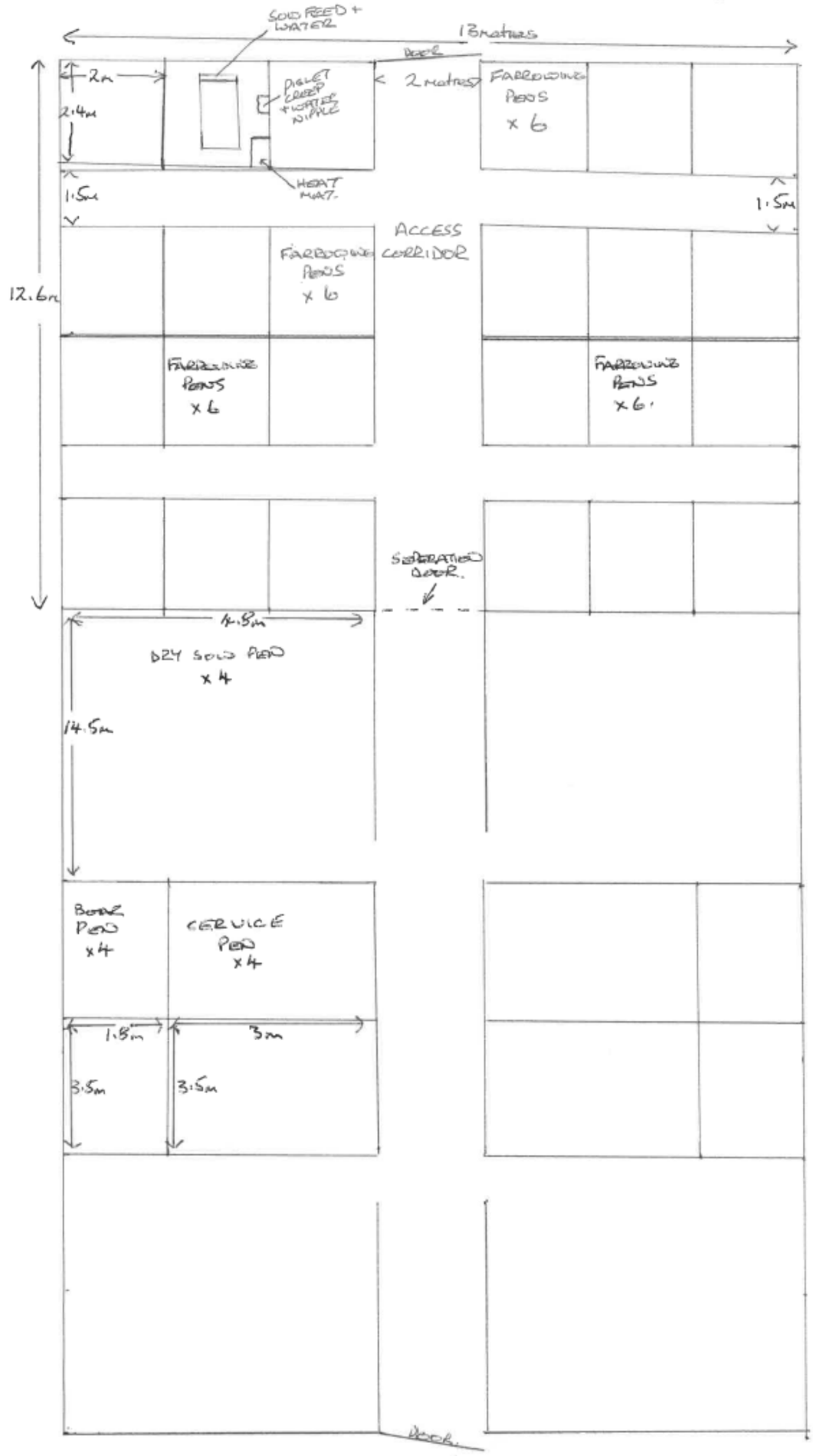
The calculation of breeding performance is based on figures for an average pig herd. The 100 sows each having a normal gestation period of 3 months, 3 weeks and 3 days, producing 2.0 litters per year and weaning 12 piglets per litter, giving an output per sow per year of 24 weaners. This allows for about 4.5% rearing losses.

Commentary

The candidate has produced a fairly accurate calculation of **breeding** performance for an average pig herd of 100 sows. The gestation period has been used to give each sow producing 2.0 litters per year The weaning numbers of 12 piglets per litter and therefore 24 weaners per year is also within the expected output parameters from an average herd. The candidate has also included rearing losses showing a realistic approach to the calculations.

This evidence in isolation provides minimal differentiation between grades, however it supports the candidate's ability to carry out the annotated plan and written report.

SOW FARROWING AREA (DIAGRAM NOT TO SCALE). (THRESHOLD CANDIDATE)



NOTES

1) ALL FARROWING PENS ARE 2.4M x 2M.
2) ALL FARROWING PENS HAVE A CRATE C/W FEED TROUGH + WATER NIPPLE, PIGLET CREEP + WATER NIPPLE AND HEAT MAT.
3) THERE ARE 24 FARROWING PENS
4) THERE ARE 4 DRY SOW PENS EACH ARE 4.8M X 14.5M EACH WITH WATER NIPPLES + FEEDER
5) THERE ARE 4 BOAR PENS 3.5M X 1.8M
6) THERE ARE 4 SERVICE PENS 3.5M X 3.0M.
7) THERE IS AN ACCESS CORRIDOR 2M WIDE FOR PIG MOVEMENTS AND HANDLER REMOVAL

Commentary

The candidate has provided an adequate plan for the pig **environment and accommodation**, showing the farrowing and dry sow areas. The plans have dimensions indicated which are within the requirements of the Pig Welfare Codes - DEFRA. However, these are not in any way generous.

The candidate has not considered any potential overflow or issues of pig ill health in the dry sow area.

There are no additional farrowing pens for any overflow in this area. Each farrowing pen has been shown to have a crate, feed and water supply for the sows plus a heat mat, water nipple and creep feed for piglets. The passageway for access whilst acceptable, does not allow room for easy removal of manure.

In terms of **breeding** and **environment and accommodation**, the boar and service pens are within sight and sound of the dry sow pens to assist in checking for sows coming on heat and standing for service.

Candidate evidence - Written Report

(Word count: 912)

The herd is on a 28-day weaning system with 70% of the sows holding at first service and 30% at second service. Based on this information I would aim for 6 sows farrowing per week, each batch of 6 would be in the farrowing crate 3.5 weeks plus 0.5 of a week to allow for sow accommodation just prior to farrowing, piglet fostering, cleaning, and disinfecting. This would require a total of 24 farrowing crates. Each farrowing area is 2m x 2.4m and there is a farrowing crate in the middle.

The farrowing accommodation would be based in a temperature-controlled building providing sufficient warmth at farrowing which should be reduced by the time weaning occurs. In addition, there are heat mats in each farrowing pen to give the piglets extra heat. There would be straw provided in the farrowing pen. There is a slatted floor to keep the piglets as clean as possible and this would be above a slurry pit.

The sows would be trough fed up to farrowing and this would be increased after farrowing. The sows have access to adequate water. It may be necessary to foster piglets from large litter onto sows which only had a small litter to give piglets a better chance and so reduce the strain on the sow. There is space in the accommodation for this.

Piglets would have their teeth clipped so that they don't bite the sows' teats or fight with each other if accommodation is tight.

The sows are normally weaned in time for the farrowing pens to be cleaned out before the new batch of sows are due to come in and farrow. Cleaning would have to be organised after the piglets and sows have been moved in order to have sufficient room. The sows will need to be in dry sow accommodation before they come into heat so that they can be served in the service pen. The piglets are then moved to their weaner accommodation to be grown on for selling at pork weight.

The dry sow accommodation is a straw yard which has no additional heating and has natural ventilation. The sows will be in here while they come on heat, are being served and until they are ready to farrow again. The building is large and airy, and the lights come on if required during the daytime. The temperature in the building will vary and depend on the temperature outside the building. The building has pens which will house the dry sows and boars and there are some service pens. Each of the 4 boar pens is 3.5m x 1.8m in size and has a service pen adjacent to it approx. 3.5m x 3.5m in size, these pens have a concrete floor and bars on the walls so that the sows and boars are able to see one another to encourage normal behaviour. Each dry sow pen holds 19 sows and is 14.5m x 4.8m allowing enough room per sow. The sows are served by AI in the service pen which is next to the boar pen and this helps to keep them interested while the stockperson is doing the AI. About a third of the sows would be served by the boar if they came back on heat after AI.

The sows will stay in the dry sow house until they are ready to farrow. It is important to have lots of fresh straw in the dry sow accommodation because when the sow is getting close to farrowing, they will start to root around in the straw to make a nest which is normal behaviour.

The boar and dry sow accommodation has straw in it to keep them warm, dry and clean. If this is left as a whole bale with the strings removed, this also lets them play about so that they enjoy having time for their natural behaviour spreading straw. There is an area at the front of each dry sow pen where the muck and urine gather and this is scraped off each day the concrete flooring helps the process. The dry sows are fed with sow nuts which are dropped into the straw from an overhead dump box. The sows then have to root around to find their food which is what they would do if they were outside. Each pen has some enrichments included to encourage natural behaviours such as fixed ropes and chains to reduce boredom. The sows are able to drink from a number of water nipple drinkers.

The stockperson is always quiet and calm towards the pigs so that they aren't frightened, and they make sure that the accommodation is kept in very good condition at all times. The stockperson will check the pigs regularly so it is important that there is good access in the accommodation for this to happen. Looking out for the pigs means that they can diagnose and treat any health issues quickly and keep them free from pain, injury and disease. To make sure the pigs don't get hungry or thirsty they are checked to make sure the feeders are working and that the water nipples are providing sufficient clean water. The temperature in the farrowing house is checked each day and in the dry sow accommodation the straw bedding is checked to make sure that it is clean and dry, so the pigs are comfortable. The pigs need to be able to express their normal behaviour to meet the five freedoms.

Commentary

The candidate has produced an adequate written report which covers the **environment and accommodation** facilities and resources in the farrowing and dry sow areas. The candidate has implied that batch farrowing will take place however, due to a low number of farrowing areas, it may be necessary to individually wean the sows and this has not been picked up by the candidate. This would mean that some piglets would be weaned at less than 28 days.

There is information regarding the size of farrowing pen space and dry sow area space which is within Welfare Code requirements. The report shows that the system makes use of enrichments however, it is not specified what these are and how these are linked to the five freedoms.

There are suggested feed requirements for the pigs at different stages of production however these are not as detailed as could be.

Piglet fostering is mentioned but is not fully justified in terms of accommodation but the piglet health is covered.

Weaning is managed to suit the farm system rather than reducing stress for the piglets. The straw yard system is acceptable for sow welfare and also for boredom relief.

The service process is documented as is the monitoring of the sows as they approach farrowing some opportunities to use technical terms have been missed. Movement back into the farrowing area is completed on a tight timescale with little room for error.

Task 9 – Health, welfare and performance

Evidence contributes to the following:

Performance outcome	Assessment themes
PO4 Optimise livestock production	Health and welfare Transportation Production/Performance data

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
health, welfare and performance template	PO4: Health and welfare PO4: Transportation PO4: Production/Performance data	√		√

Candidate evidence - Health, welfare and performance

Fig 8: Health, welfare and performance

This template may be modified by adding items/rows only.

Candidate's name	Sample Candidate	**Enrolment number**	CG12345
Task / Activity	health, welfare and performance template	**Location**	Sample centre
Assessor's name	Sample Assessor	**Date**	23/03/23

The animal welfare frameworks and legislation that must be considered and how they relate to the enterprise	The Animal Welfare Act covers the 5 welfare needs for animals in a captive environment. The five freedoms are: suitable environment, diet, behaviour, companionship and protection from pain and disease. This means that the environment the animals are kept in must not be bad for them and must have enough space for them to be comfortable. They should have perches and enough popholes to be able to go outside. The diet they eat must be good for them and not cause them to be overweight or underweight. Hens must show natural behaviours like searching for food and scratching and pecking, and they must live with other hens. No one should cause injury or suffering to the hens on purpose, and they should look after them. The Welfare of Farmed Animals regulations gives more detail about how to keep the hens and their environment and this links to the DEFRA codes of practice which are like a rule book on the husbandry for chickens.

	If the hens get sick this must be diagnosed and treated by a vet under the Veterinary Surgeons Act and no one else can do this. The legislation must be followed so that the laying unit gives the hens good husbandry and welfare and does not cause harm.
The handling methods and techniques when catching and loading/ unloading with justifications	Hens should be handled by picking up both legs by people who are correctly trained. Birds that are severely injured or ill should not be handled and should be culled. Transportation containers should have big openings so that if birds flap when going in and out they do not hurt their wings.
Transportation requirements (legislation, documentation, fitness to travel)	Transportation requirements are in the welfare of animal's transport order, and food is not given for short journeys. Chicks can travel for longer than adult birds. On long journeys over a certain amount of time, food and water should be given. Birds must be fit enough to travel and should not be ill or injured. Documentation must be completed for all journeys and kept for checking.
The techniques used to identify and monitor the health and wellbeing of the birds with justifications (benefits/ limitations) for each technique	A health and welfare plan should be written to tell everyone how to look after the hens. The hens should be regularly health checked to prevent disease and parasites. Birds that act unusually (not feeding or drinking) may also be showing signs of being ill.

<table>
<tr><td></td><td colspan="3">Chickens that are suspected of being ill can have more detailed health checks and samples taken for testing to identify any diseases.</td></tr>
<tr><td rowspan="8">The health checks for the bird and signs of good and poor health</td><td>Body part</td><td>Signs of good health</td><td>Signs of poor health</td></tr>
<tr><td>Eyes</td><td>No discharge. Eyes are clear.</td><td>Discharge could be an infection or disease.</td></tr>
<tr><td>Beak</td><td>No damage. Beak parts are not overgrown.</td><td>Overgrown could mean no pecking areas.
Gaping can be a sign of mites or lice.</td></tr>
<tr><td>Comb</td><td>bright and upright</td><td>Floppy combs can be a sign of not enough water.</td></tr>
<tr><td>Feathers and skin</td><td>Clean and shiny.</td><td>Missing or damaged feathers could mean mites or lice or pecking from other birds.</td></tr>
<tr><td>Wings</td><td>Not damaged</td><td>Broken wings can be a sign of trauma or injury from the environment.</td></tr>
<tr><td>Legs and feet</td><td>smooth and evenly coloured. No signs of injury. The birds are not limping</td><td>Scabs or uneven scales may be a sign of leg mites.
Blisters on the foot could be bumblefoot which is caused by wire floors.</td></tr>
</table>

	Vent	Clear skin with no flaking. No visible mites or lice	Dryness could be a sign of not enough water. Flaky skin could be a sign of mites or lice.
Other signs of good and poor health	**Observation**	**Signs of good health**	**Signs of poor health**
	General behaviour	Eating and drinking, no fighting.	Not eating and drinking. Fighting with other birds.
Key performance indicators of the production operation and factors affecting livestock achieving these	**KPI's**		**Factors**
	The number and quality of eggs		Bad diet or not enough food and a poor environment can stop hens laying so will mean less eggs. If grit is missing from the diet the eggshells might be too weak so the eggs will break which also means less eggs and less money. As the hen gets older, she will produce less eggs.
	The health of the chickens		If the hens are not healthy, they will not produce enough good quality eggs. This is likely to be because something in their husbandry is not right. If they

		are healthy this means that they are being fed properly and looked after well and will produce more eggs.

Commentary

The candidate demonstrated an adequate performance that met the requirements of the task, demonstrating adequate technical knowledge for carrying out tasks associated with **Health and Welfare**, **Transportation** and **Performance Data** for free range laying hens.

This is shown through limited knowledge of environmental requirements, legislation, handling of birds, transportation, health and KPIs. The information provided is sufficient to meet the threshold, although sometimes it is generic and lacking in the specific detail required for a higher grade e.g. the justifications and health check information given could be improved. The candidate mostly used technical terminology to a satisfactory level. The report shows an adequate knowledge of the five freedoms and how this relates to the enterprise. A health and welfare plan was mentioned, but there was no supporting detail. Feeding requirements were also mentioned but again, without any specific detail.

Task 10 – Areas of the livestock production environment

Evidence contributes to the following:

Performance outcome	Assessment theme
PO5 Maintain areas surrounding the livestock production environment	Plan boundary maintenance

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
written report	PO5: Plan boundary maintenance	√		√

Candidate evidence - Written Report

(word count: 415)

I am assuming that at Guilds Farm there is 10.11 hectares of grassland that has always been used for grazing sheep and cattle and mowing for hay and silage production. I am assuming that the land has been re-seeded in the last 4 years. The owners now want to use the land for environmental improvement, so they are thinking about putting the land into a mid-tier stewardship scheme.

I have decided that they will need to use a mixed sward of grasses, legumes, and herbs within the first 12 months of signing up to the agreement and then maintain the mixed sward for five years. The land will still be used for grazing with sheep and cattle as part of a grazing rotation.

For the stewardship Guilds Farm need to include at least five species of grass, four species of legume and four species of herb or wildflower.

The benefits to the environment of doing this include:

- Increase flowers in the sward to attract bees, butterflies, hoverflies.
- Improve soil structure which in turn increases soil organic matter.
- Reduces runoff through the improvement of soil structure.

The herbal ley will also benefit the livestock grazing it as it will:

- Provide grasses that are high in energy.
- Provide legumes that are high in protein.
- Include herbs or wildflowers that provide important minerals.

Herbal leys can also:

- Reduce the need to use fertilisers and herbicides.
- Be drought resistant.
- Help control weeds.

Guilds Farm will also be able to claim £382 per hectare. 10.11ha's will make the farm £3862.00 per year. This will help when we are losing the Single Farm Payment.

The herbal ley will be put in by over-sowing into the original grass ley.

- The grass will be grazed very short.
- The land will then be harrowed or "scratched" to create at least 50% bare ground.
- The seed will then be broadcast into the soil in a diamond formation to ensure even coverage.
- After broadcasting the ground should be rolled to ensure good seed to soil contact to maximise germination.

The seed mix could also be shallow drilled directly into the ground at a depth of 1cm, but the farm is trying to reduce contractor costs.

The farm has to keep records of the process such as invoices for buying the seed, any machinery hire/contractor costs as well as keeping photographic evidence of the herbal ley establishing and being grazed and maintained throughout the five-year period. Once established, grazing in the first year will be done lightly.

Commentary

The candidate produced an adequate report that covered all elements of the brief for this **planning boundary maintenance** task and have shown sufficient understanding of the areas surrounding livestock production but did not fully explain or justify their reasoning. For example, the environmental and business benefits need further explanation. Benefits of establishing a herbal ley were included but not fully explored or justified, some linking of theory to best practice, such as the cultivation method of establishing the ley. For example, the costings do not show that the amount of government support lost by the change of land use. The candidate has not shown that they have considered whether this change will be profitable to the farm. They have shown that there will be benefits to insects due to the pollinator plants used.

Task 11 – Performance data

Evidence contributes to the following:

Performance outcomes	Assessment themes
PO2 Establish conditions for animal breeding	Breeding
PO3 Rear livestock from birth to production standard	Rearing
PO4 Optimise livestock production	Production/Performance data

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
written report	PO2: Breeding PO3: Rearing PO4: Production/Performance data	√		√

Candidate evidence - Written Report

(word count: 705)

Physical Data Comparisons

Guilds Farm Lambing March-April	Physical Data:	Benchmark Data
Ewes put to tup	500	500
Lambing %	188%	175%
Young lamb deaths	5%	6%
Older lamb losses	7%	4%

Gross Margin Data

Guilds Farm	£/hd	Benchmark £/hd
Sales:		
Finished lambs	£105	£97
Ewe/ram depreciation	£24	£24
Wool sales	£2 /ewe @£0.50p/kg	£2.5 /ewe @ £0.80/kg
Variable Costs:		
Vet Med	£11	£10
Concentrate costs	£20	£16
Miscellaneous	£12	£15

Keeping records of performance allows farms to see what they are spending and make improvements to their income.

Lambing is better than benchmark and lambing losses is worse than benchmark. So lamb sales are better than benchmark. Guilds farm still had more lambs to sell than benchmark.

The data shows that they have a slightly lower scanning percentage than the benchmark data. This could be because of the ewes age, health, and condition. Condition of the ewes needs keeping at around a 3 because it links to producing more eggs and therefore better fertility.

Ewes might have abortions before scanning. This could have been caused by Toxoplasmosis or Enzootic abortion which is spread when conditions are not hygienic enough. If ewes are not fed well enough in pregnancy, they could get metabolic disorders such as twin lamb disease.

Lamb Mortality for Guilds Farm is quite good at 5%. They probably don't need to do too much more than they are doing, just keep on with the colostrum, keeping pens clean and putting iodine on navels when lambs are born. If the weather is bad, maybe they could bring the flock inside or not turn young ones out as quickly.

Guilds Farms older lamb mortality is quite high compared to the benchmark figure, so the farm could maybe look into vaccinating lambs with things like Heptavac when they are a few weeks old and keeping them well fed. Perhaps they need a bit more feed such as hay and silage and some extra nuts so they can manage to keep well in bad weather.

Lamb values aren't as good for my farm, so they need to make them worth a bit more, they could buy in some better tups that will give a bit more shape and muscle to the lambs, and might make them grow a bit more quickly, then they can get them to mart a bit quicker when values are higher anyway. If they wanted to, they could lamb at a different time so that they can aim for a different market, but that would mean lambing earlier when the weather is not as good and also putting tups in at a different time. To aim for an Easter sales date, you need tups in in August, then lambing would be in January. But lambing early isn't right for every farm, so it depends on your system. To enable lambing from the 1st March to the 12th April, rams need to go in on 5th October and come out on 17th November. This system would be better for most farms because the lambs would be born when the grass is growing better in the spring and so you do not need to buy as much feed, and you don't need to keep them in a building for as long assuming the weather is better in the spring.

Vet medicine costs are quite high. They could look to getting a vet to help them sort out why they are spending so much and then be a bit stricter with what medicines they give and not waste money on unnecessary medication.

They appear to be feeding quite a lot more concentrates at my farm, so maybe the ewes are dropping condition a bit too much or they aren't feeding the lambs enough. The farm could buy in replacements and sell the ewes as culls or maybe keep back a few more young ones they have bred. They could also make sure haylage/silage is good enough for them by getting it tested. They could also make sure they feed more to the ones that need it most, like the twins and triplets not the ones that don't, like the singles, they should only be fed with nuts if the grass or silage is not good enough.

Commentary

The candidate demonstrated an adequate performance that met the requirement of the task, demonstrating adequately sound technical knowledge and understanding associated with **Breeding**, **Rearing** and **Performance Data** for a sheep breeding flock.

This is shown through a display of adequate knowledge and understanding of physical and financial data relating to topics such as condition scoring and its effect on fertility, scanning, diseases which effect performance, mortality rates, feed requirements and vaccinations. The candidate appeared to be bringing in a 3rd farm (the one they work on?) as a comparison which did not always tally with the data presented and could cause confusion. The candidate mostly used technical terminology in their report but sometimes the justification was not explained fully enough such missing information on preparing the ewes for tupping. The candidate displayed an adequate understanding of the effects of good and poor health on livestock breeding and performance and described how to make improvements in these

areas in general terms for example the feeding of the sheep was given but no specific amounts or rationale was given.

The T Level is a qualification approved and managed by the Institute for Apprenticeships and Technical Education.

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