

Assessment Schedule – 2015

Agricultural and Horticultural Science: Demonstrate knowledge of livestock management practices (90921)

Assessment Criteria

Question One: Lambs

Not Achieved		Achievement		Achievement with Merit		Achievement with Excellence	
“Demonstrate knowledge” requires describing how livestock management practices are carried out.				Links ideas to explain why livestock management practices, or steps within practices, are carried out.		Applies knowledge of livestock management practices to given situations. This may involve comparing and contrasting or justifying management practices.	
N1	N2	A3	A4	M5	M6	E7	E8
Describes ONE idea at Achievement level.	Describes TWO ideas at Achievement level.	Describes THREE ideas at Achievement level.	Describes FOUR ideas at Achievement level.	Explains THREE ideas at Merit level.	Explains FOUR ideas at Merit level.	Justifies the method chosen.	Fully justifies the method chosen by comparing and contrasting.

N0 = No response; no relevant evidence.

Examples of evidence for answers

Describes (Achievement) one method of docking lambs’ tails

- Placing a rubber ring at the base of the tail.
- Using a hot iron to cut and sear/burn off the tail at the base.
- Placing a rubber ring at the base of the tail and cutting the tail off with a knife. (Note: Just cutting off the tail with a knife is not acceptable, as it leaves an open wound susceptible to infection; also, it is against animal welfare laws.)

Describes (Achievement) / **Explains** (Merit) why docking is carried out on lambs

- Prevents faecal matter from sticking to the crutch area (Achievement), which helps to prevent fly strike (Merit); fly strike can cause a lamb to grow less, because it is putting its energy into repairing the infected site (Merit).
- It is easier to shear/crutch (Achievement)/less likely to be injured during shearing/crutching (Achievement), so won’t have a wound that can be infected that the animal has to put energy into healing (Merit), that the farmer has to spend money on fixing, possibly with a withholding period (Merit).

Describes (Achieve) / **Explains** (Merit) why ear marking is done

- Easier to identify individual animal (Achievement) for ease of monitoring stock for breeding/health.
- Highly visible (Achievement) for ease when working with stock in yards.
- The name of farm, year code, paternity information, etc, corresponds to the ear tag (Achievement), which gives traceability during growth/mating/on-selling (Merit).

Describes (Achievement) / **Explains** (Merit) / **Justifies** (Excellence) why one practice is preferable to the other

Buying rams	Buying ewes
<p><i>Advantages</i></p> <ul style="list-style-type: none"> • One ram can service many ewes (A), thereby increasing production / passing on genes faster (M). • Cheaper to buy several rams than many ewes (A), which lowers the cost of production / increases profit (Merit). • Can also select other desirable traits (A), so can be selective about which other genes to introduce to the flock (Merit). 	<p><i>Advantages</i></p> <ul style="list-style-type: none"> • Can guarantee that their offspring will have those genes. • Ewes are cheaper to buy as individuals (A), which is okay if only a few are to be purchased (M).
<p><i>Disadvantages</i></p> <ul style="list-style-type: none"> • Rams can be very costly. • Will have to buy more in a few years' time, to avoid in-breeding. 	<p><i>Disadvantages</i></p> <ul style="list-style-type: none"> • Have to buy many ewes to replace the entire breeding flock. • Still need a ram (possibly also with desired genes).

Question Two: Cattle

Not Achieved		Achievement		Achievement with Merit		Achievement with Excellence	
Describes how livestock management practices are carried out.				Links ideas to explain why livestock management practices, or steps within practices, are carried out.		Applies knowledge of livestock management practices to given situations. This may involve comparing and contrasting or justifying management practices.	
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N0 = No response; no relevant evidence.

Examples of evidence for answers

Describes (Achievement) actions to carry out when drenching calves / **Explains** (Merit) why each action is performed this way

- Calves are weighed and drench is administered to the heaviest animal (Achievement). This prevents under-drenching of stock (Merit).
- Administer the drench amount as per instructions on the pack (Achievement). This ensures that stock receive the required amount (Merit).
- Position the drench gun to the back of the throat (Achievement). This prevents the animal from spitting out the drench (Merit).
- Alternate drench types with each drenching (Achievement) to prevent build-up of resistant parasites (Merit).
- Have stock in the race (Achievement) for easier and safer handling (Merit); easier to make sure all calves are drenched (Merit).
- Ensure all animals are drenched (Achievement). This ensures that live parasites will not contaminate fresh grass (Merit).

Describes (Achievement) / **Explains** (Merit) how drenching improves production in cattle

- Drenching kills or reduces the number of internal parasites (Achievement). Internal parasites can take the nutrients from digested food before it is absorbed into the animals' bloodstream (Merit).
- Parasites absorb nutrients before stock get benefit from it (Achievement). This means that the animal will need to eat more to maintain high production (Merit).
- Parasites reduce the production/growth rates of stock (Achievement), so that they need to eat more, which costs more/lowers profit margin (Merit).
- Internal parasites eventually weaken the animal (Achievement) and medical intervention may be required, which could cause a withholding period (Merit), reducing production and increasing costs through veterinary care/reduced profits for the farmer (Merit).
- Reduces pasture contamination/eggs that can hatch on pasture.

Describes (Achievement) / **Explains** (Merit) / **Justifies** (Excellence) why one method is better than the other method

Tail paint	Bulling
<p><i>Advantages</i></p> <ul style="list-style-type: none"> • Cheap/low cost (A) which means that it won't impact too heavily on profit (M). • Easy to use/apply (A), so that little expertise or training of staff is needed (M). • Rubs off when cow is being ridden (A), so need to observe only at milking (Merit). 	<p><i>Advantages</i></p> <ul style="list-style-type: none"> • Easy to see which cows are being ridden. • Standing for mating is surest sign of oestrus (A), so is more accurate (M). • Can also observe pre-oestrus cows riding others (A), so know which ones are about to come on heat (M).
<p><i>Disadvantages</i></p> <ul style="list-style-type: none"> • Have to change colours often. • Can get rubbed off from other things. • Can end up with many colours/layers of colours (A), making it harder to read accurately (M). 	<p><i>Disadvantages</i></p> <ul style="list-style-type: none"> • Have to be out observing stock (A), which means high labour cost (M). • Unlikely to have someone in the paddock, observing all the time. • Need to have a high level of expertise to do it accurately.

Question Three: Pigs

Not Achieved		Achievement		Achievement with Merit		Achievement with Excellence	
Describes how livestock management practices are carried out.				Links ideas to explain why livestock management practices, or steps within practices, are carried out.		Applies knowledge of livestock management practices to given situations. This may involve comparing and contrasting or justifying management practices.	
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N0 = No response; no relevant evidence.

Examples of evidence for answers

Describes (Achievement) actions to carry out when vaccinating pigs / **Explains** (Merit) why each action is done

- Ensure vaccine has not expired (Achievement), as it may lose its effectiveness if it is past its “best before” date (Merit).
- Vaccinate to the heaviest weight (Achievement), so that no animals are under-vaccinated (Merit).
- Have the animals in a race / confined (Achievement), as it is easier to keep track of those that have / have not been dosed (Merit), thus reducing the chance of missing or double-dosing (Merit).
- Ensure the needle is sharp / new (Achievement), to reduce the size of the wound site and reduce chance of infection (Merit).
- Inject into the neck (Achievement), so as not to damage valuable meat (Merit).

Describes (Achievement) / **Explains** (Merit) housing conditions for indoor pigs

- Hygiene needs to be high (Achievement), as disease can easily spread in crowded conditions (Merit). If a disease does occur, it can quickly spread to a large number of animals (Merit), meaning some will die / have to be culled / have to be treated, which will impact on yield / profit or may require a withholding period (Merit).
- Close confines means that water and food need to be clean and changed regularly (Achievement) to avoid contaminant / pathogen build-up (Merit).
- Same age group in the same pen, so they are the same size / were weaned at the same time / have the same nutritional needs (Achievement), otherwise the bigger / older ones will eat all the food (Merit) and the smaller ones will not gain condition (Merit).
- Same age group means that they are more easily monitored (Achievement), because they will all be at the same stage regarding requirements for drenching / vaccinating / slaughter, etc (Merit).

Describes / Explains / Compares and contrasts the changing feed requirements of sows from pre-pregnancy to weaning of piglets

- Pigs have a monogastric/non-ruminant digestive system, so require feed that is low in cellulose/roughage/fibre (A), as their system is not able to easily digest cellulose, so they need a diet that is higher in protein or processed foods (M), or vice versa.
- Maintenance feed during adult phase of life (A), unless animal is pregnant/lactating/repairing injury/fighting disease (M).
- Feed needs to be good leading into pregnancy (A), so that sows are in good condition to sustain/carry pregnancy/piglets (M).
- Feed needs to be plentiful during pregnancy (A), as the foetus is developing (M).
- Feed needs to be plentiful during lactation (A), so that sows can provide enough milk for their growing piglets and maintain body condition themselves (M).
- Once piglets are weaned, sows can return to maintenance feeding (A), but feed should not be reduced too much, as it will not be long before the sow is pregnant again, and she will need to be in good condition for pregnancy (M).

Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0 – 6	7 – 12	13 – 18	19 – 24