EXAMINATIONS COUNCIL OF ESWATINI

Eswatini General Certificate of Secondary Education

Agriculture (6882)

Examination Report for 2024

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EGCSE AGRICULTURE

Paper 6882/02

Theory

EGCSE Agriculture Paper 2 consists of two (2) sections, **SECTION A (70 Marks):** - Structured Questions and **SECTION B (30)**: - Essay questions. This paper contributes 40% of the overall mark.

Section A: General Comments on Agriculture Paper 2

The 2024 cohort performed fairly better than the 2023 cohort, with the highest mark in 2024 being 75% and 72% for 2023. More candidates scored higher marks in 2024 Agriculture paper 2 examination compared to 2023. The lowest score was 00/80 and the highest was 75/100. On the overall, the paper proved to be challenging to most of the candidates. There were 6611 candidates who sat for the 2024 EGCSE Agriculture examination compared to 5753 candidates for 2023. The paper was appropriate and relevant to the grade level of the candidates. It also covered all sections of the syllabus from general agriculture to agricultural engineering. Structural changes on the paper were as follows: Section A was marked out 70 marks and Section B marked out of 30 marks, instead of 60 marks and 20 marks respectively for the previous years.

Inappropriate defined agricultural terms by use of technical wrong words were noted as a key setback for candidates. There is an observed improvement in adherence to command words when responding to questions though there is continued failure to describe processes or practical procedures in chronological order, resulting in loss of marks for disorderly mentioned points.

Parts of the syllabus that seemed to be challenging to candidates:

Question 1 (b, i), (d) (e) – hydroponics, monoculture and organic farming
Question 2 (a), (e) – agribusiness and farm budget;
Question 3 (b, d) – soil compaction and standards for exporting vegetables;
Question 4 (c, e), – overuse of inorganic fertilisers and soil pH;
Question 5 (d) – asexual reproduction;
Question 6 (d) – bio-intensive integrated pest management;
Question 8 (b), – nutritional requirements for livestock of different ages;
Question 10 (b), – creosoting in wooden posts.

(NB: The comments on specific questions are found in full from section B of the report**)**

Section B: Comments on Specific Questions

Section A – Structured Questions

Answer **all** questions in this section **(70 marks)**

Question 1

(a) Outline any **two** reasons why research is important in agriculture development.

Expected Responses

- improve crop and livestock production techniques/ develop new machinery, tools, equipment; improved varieties; improve pastures and fodder quality; develop techniques for pest and disease control; improved inputs; informs policy making

Comments

This part of the question was poorly answered. Candidates did not understand the question. Instead of writing reasons why research is important, they wrote answers relating to market research, defined research and provided general reasons such as problem solving.

(b) Over many years different farming systems have evolved; intensive, monoculture and organic farming. One new trend is hydroponics.

(i) State what is meant by a hydroponic system.

Expected Responses

- growing crops in a nutrient solution.

Comments

Most candidates failed to give the meaning of '*hydroponic system'*. Common responses were growing crops on water solution, farming in water, using water as a growth medium, and growing crop without soil. All these responses were not accepted.

(ii) Suggest **one** advantage of using a hydroponic system.

Expected Responses

- produce is clean; eliminates soil borne diseases; no nutrient losses; conserves water; used on limited land/ poor soils

Comments

The performance was above average on this question. Most responses were on clean harvest, soil borne diseases eliminated. However, common error, was wrong spelling of 'soil borne disease' where most candidates wrote 'soil born diseases' or 'soil bone diseases' resulting in the loss of

marks. Other common wrong responses stated that it is for preventing diseases. There were those who stated that it is cheap, which was not accepted.

(c) Describe the contribution of intensive farming systems to the national economy.

Expected Responses

- enhance food security/more produce/yields; more exports/ensuring foreign exchange; employment/creates jobs **(any two points supported)**

Comments

This question was poorly done by a majority of the candidates. The candidates had the understanding of the question but failed to describe, they only stated or outlined the contributions without supporting statements.

(d) Explain how monoculture could result in the use of more fertilizers.

Expected Responses

- depletion of nutrients; due to same nutrient demand yearly.

Comments

This question was poorly answered by a majority of the candidates. Most candidates defined monoculture instead of explaining how it results to the loss of nutrient/soil fertility/nutrient depletion.

(e) Explain how organic farming could be expensive to practice.

Expected Responses

- costs of certification of inputs and registration; high labour cost/ labour intensive; cost of rehabilitation of land**.**

Comments

This question was poorly answered by a majority of the candidates. The candidates failed to relate their responses to the major costs of organic farming such as cost of inspection, cost of certification. They related their responses to the cost of organic fertilizer.

Question 2

(a) What is meant by agribusiness?

Expected Responses

- the art and science of organizing limited resources/use of minimum inputs to achieve maximum returns (commodities produced by farming)

Comments

This question was poorly answered by a majority of the candidates. Candidates failed to define agribusiness. Most candidates related agribusiness as farming business.

(b) Give any **two** ways farm credit is used in agriculture.

Expected Responses

- fund seasonal agricultural operations such as cultivation/pest control; purchase inputs/land; commercialize farming/expanding scale of production

Comments

This question was fairly answered by majority of the candidates. Most candidates mentioned types of credit such as: long-term loan, medium-term loan and short-term loan. Common responses were using farm credit to start a business, to buy inputs, to buy farming land, and to pay debts.

(c) State any **two** requirements needed to access a loan.

Expected Responses

- purpose of loan; business plan; tax clearance; business experience; credit history; personal information/company profile; audited financial statements; collateral; information on outstanding loans

Comments

Candidate performed fairly well in this question. Common responses were bank statement, pay slip, ID, source of income. Few candidates could not specify *'collateral'* but describe it as security instead of security for the loan.

(d) Describe resources that are regarded as capital in agricultural production.

Expected Responses

- are assets that are essential in the production process; includes tools, machinery and equipment, farm inputs and money

Comments

Most candidates failed to describe resources regarded as capital. Instead, they gave examples such as land, machinery, money, livestock.

(e) Explain the purpose of a farm budget.

Expected Responses

- decision making tool/comparing enterprises; planning; sourcing of inputs; accessing a loan.

(any two points supported)

Comments

This question was poorly answered by a majority of the candidates. Candidates were defining 'budget' instead of explaining its purpose.

Question 3 **Fig. 3.1** shows a farming practice where maize is planted together with beans.

Fig. 3.1

(a) (i) Name the farming practice shown in **Fig 3.1.**

Expected Responses

- intercropping

Comments

This question was well answered by a majority of the candidates. Most candidates got this question correct. Only a few candidates identified the farming practice as mixed farming, monoculture, crop rotation.

(ii) Describe any **two** benefits to the maize crop of the farming practice shown in **Fig 3.1**.

Expected Responses

- prevent soil erosion/beans act as cover crop; nitrogen fixation; beans act as living mulch/suppress weeds/conserves moisture

Comments

This question was poorly answered by a majority of the candidates. Candidates were only able to state benefits of the farming practice to maize but failed to describe them as the question required. Some candidates included provision of insurance and death of legumes to provide organic matter.

(b) Crops grown outside as in **Fig 3.1** involve the use of machinery that can cause soil compaction. Explain how soil compaction could affect crop production.

Expected Responses

- poor aeration resulting to poor root respiration/poor microbial activity; poor infiltration/poor drainage due to reduced pore spaces; poor root development/ spread as particles tightly packed**.**

Comments

This question was poorly answered by a majority of the candidates. Candidates failed to express themselves how compaction affects crop production. Candidates only brought effects of compaction without relating them to crop production.

(c) Some crops are grown inside greenhouses (glasshouses) to increase production.

State **two** environmental conditions that are controlled inside a glasshouse.

Expected Responses

- temperature; light intensity; humidity; carbon dioxide; wind; rainfall.

Comments

Most candidates responded well to this question. Candidates managed to list the environmental conditions, however some mentioned light instead of light intensity.

(d) Crops that are produced for export must comply with certain conditions.

Suggest any **two** standards required when exporting baby vegetables.

Expected Responses

- register with Eswatini Revenue Services; export declaration form; exchange control form/ invoice/ road manifest; export permits/trade license/market rights; certificate of origin; certificate of inspection of goods/ food safety adherence; relevant packaging/ transport unit sealed by Customs/ quality control maintenance; phytosanitary certificates/disease/pest free products

Comments

This question was poorly answered by a majority of the candidates. Candidates could not understand the term ‘standards’, they had a misconception for ‘seedlings.’ They mentioned growing seedlings on seed trays or growing seedlings which are resistant to diseases.

Question 4

(a) Fig. 4.1 shows the response of two maize varieties to increasing levels of NPK fertiliser application.

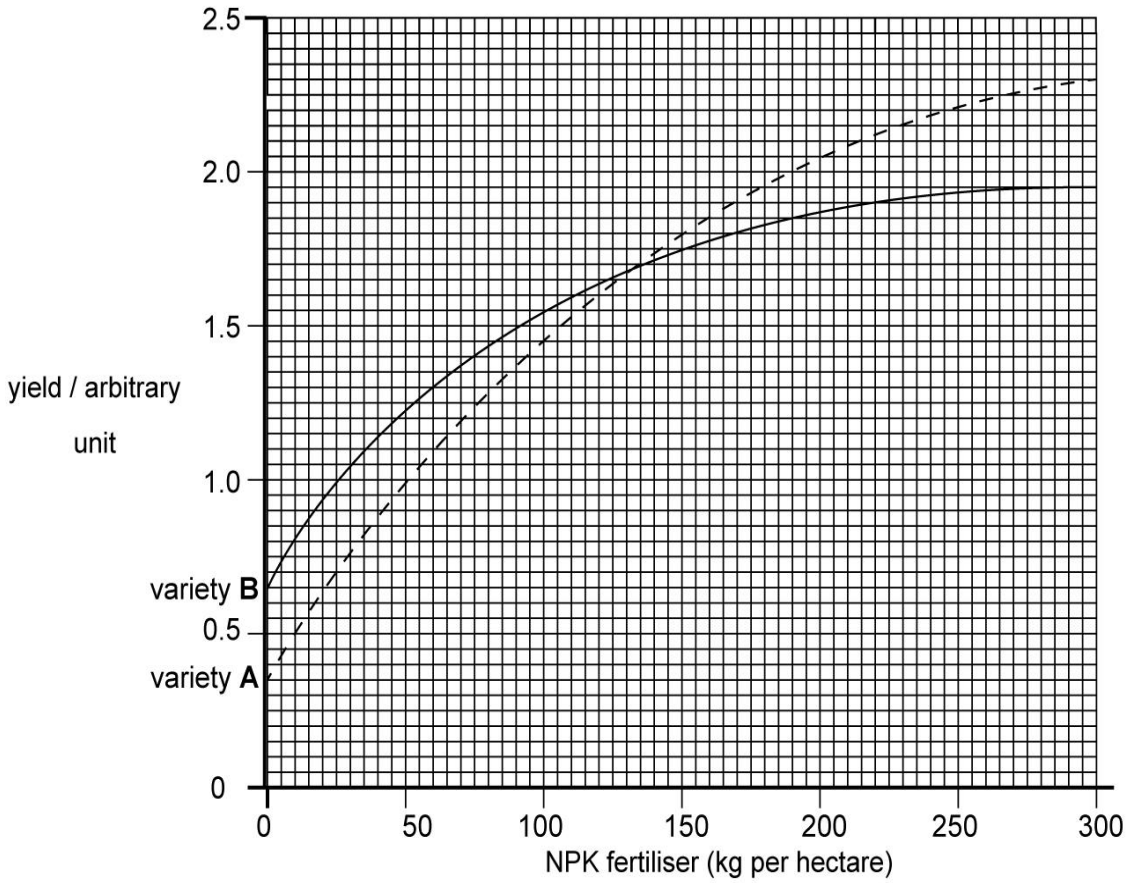

Fig 4.1

(i) What is the amount of NPK fertiliser applied per hectare to produce a yield of 0.75 units from variety **A** in **Fig. 4.1**?

Expected Responses

- 30kg

Comments

Candidates could not use graph for this question. Some candidates got this question wrong because they omitted units.

(ii) State the amount of NPK fertilizer applied per hectare when the yield from variety **A** and **B** are equal.

Expected Responses

-135 kg

Comments

This question was poorly answered by a majority of the candidates. Candidates could not use graphs properly to extrapolate the answers for the question. Candidates also omitted units for this question.

(iii) Calculate the difference in yield between variety **A** and **B** when 190kg of NPK fertiliser is applied per hectare.

Expected Responses

- variety A is 2.0 units - variety B is 1.85 units = 0.15 unit

Comments

This question was fairly answered by a majority of candidates. Candidates had a challenge in reading the graph. The candidates failed to calculate the difference in yield of the varieties A and B. Some candidates only put the yields of A and B without subtracting. Other candidates could not put units on their answers.

(b) Before growing a crop and adding fertiliser a soil should be tested.

Fig 4.2 shows the order in which soil samples were taken from a school garden for testing.

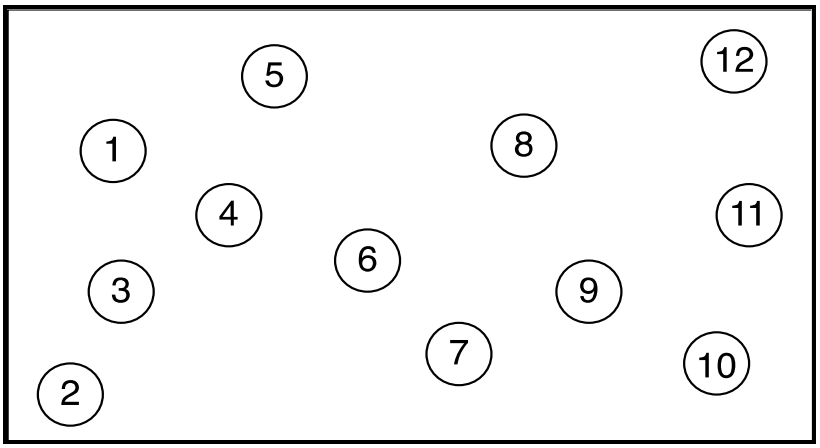

Fig. 4.2

Name the sampling method used in **Fig 4.2.**

Expected Responses

- random sampling

Comments

The performance in this question was average. Common unaccepted responses were zig-zag, transverse and systematic.

(c) Describe any **two** problems caused by the overuse of inorganic fertilisers to the environment.

Expected Responses

- soil pollution/chemical residues in soils; soil acidity/some chemical fertilizers decrease pH; pollution of water bodies/eutrophication; destroy soil structure/reduced microbial activity

Comments

This question was poorly answered by a majority of the candidates. Candidates could state the problems caused by overuse of inorganic fertilizers but failed to describe them.

(d) Give any **two** factors that could cause soil to be more acidic.

Expected Responses

- over irrigation/too much watering/leaching; application of inorganic fertilizers/ammonium sulphate; application of poultry litter; removal of crop residues; acid rain

Comments

A majority of candidates performed well above average in this question. Candidates mentioned answers such as adding lime, organic matter and adding too much fertilizers which were not accepted.

(e) Explain how soil pH affects plant growth.

Expected Responses

- less H ions promote microbial activity/ soil pH close to neutral; promote nutrients availability/change solubility

Comments

This question was poorly answered by a majority of the candidates. Candidates related pH to enzymes being denatured in the soil. They also stated crops will fail to absorb nutrients without specifying whether on acidic/alkaline. Candidates could only state that there will be stunted growth on plants without explaining it clear.

Question 5

Fig. 5.1 shows the germination of a seed.

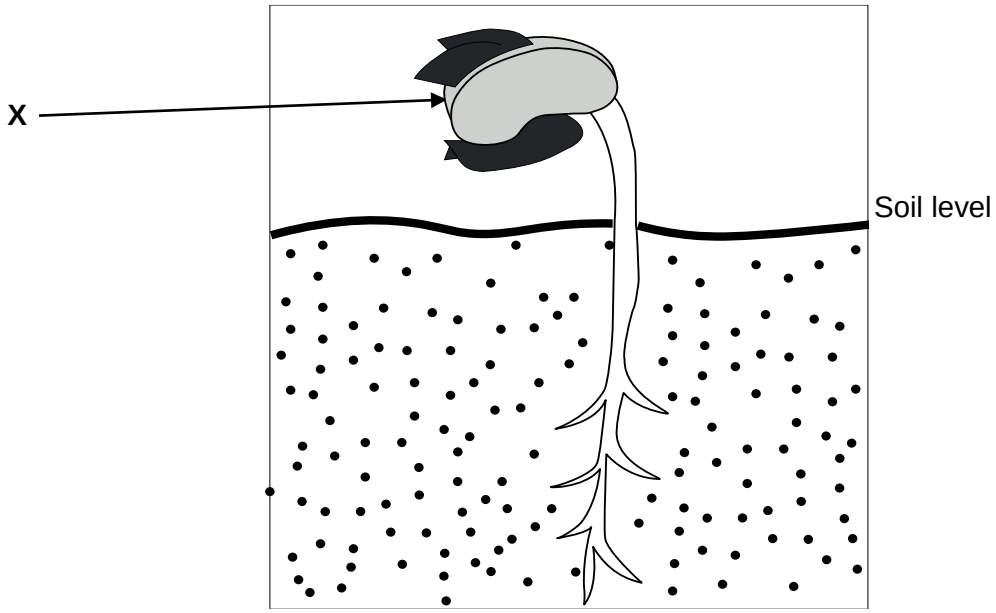

Fig 5.1

(a) (i) Name the part labelled **X** on **Fig. 5.1.**

Expected Responses

- seed coat/ testa

Comments

This question was poorly answered by a majority of the candidates. Common wrong responses were plumule, shoots, and young leaves.

(ii) What **type** of germination is shown on **Fig. 5.1**?

Expected Responses

- epigeal germination

Comments

The performance for this question was above average. Common wrong response was hypogeal. There were challenges on spelling for epigeal.

(b) State any **two** conditions necessary for germination.

Expected Responses

- suitable temperature/ warmth; oxygen; moisture; viable seed

Comments

The performance for this question was average. Common errors were writing air instead of oxygen, variable seed instead of viable seed and sunlight instead of suitable temperature.

(c) Describe the process by which water enters the root hair cell.

Expected Responses

- osmosis; movement of water molecules from their higher concentration/weak solution/high water potential to their lower concentration/strong solution/low water potential; through a partially permeable membrane/semi-permeable membrane

Comments

The performance for this question was average. Common errors were active transport, diffusion, transpiration pull. Some candidates were missing points due to technical failure to describe osmosis. A point was missed where candidates could only describe the process without stating its name.

(d) Farmers do not always plant crops from seeds.

Suggest any **three** reasons for growing crops using asexual reproduction.

Expected Responses

- new plants identical to parents; cheap/ planting material readily available; mature early; hardy **(any three)**

Comments

This question was poorly answered by a majority of the candidates. Common answers were early maturity, cheap. Common error on the responses was ‘disease resistance’.

Question 6

Fig 6.1 shows an aphid feeding on a plant tissue.

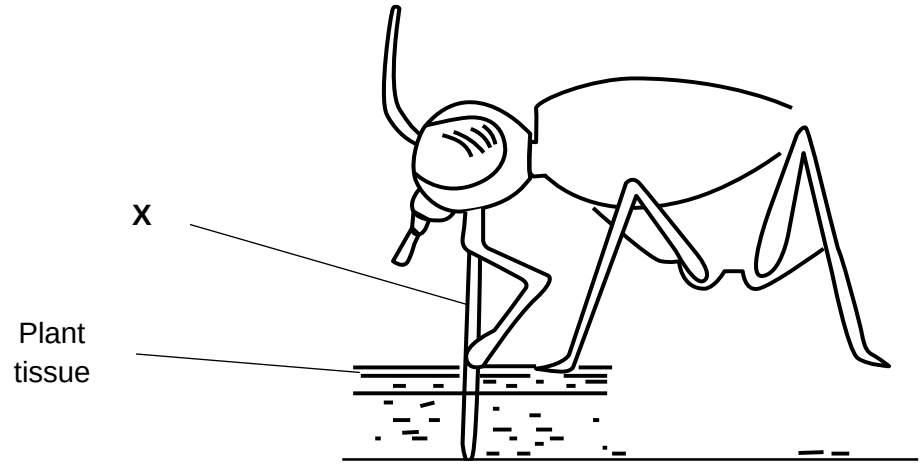

Fig 6.1

(a) Name part **X** in **Fig 6.1.**

Expected Responses

- proboscis/stylet

Comments

The performance in this question was average. Common errors were writing sucker, piercer, mandibles and debeaker as the name for part **X**. Wrong spelling for proboscis was common.

(b) The pest in **Fig 6.1** feeds by piercing and sucking.

(i) Suggest **two** ways this reduces crop yields.

Expected Responses

- reduces plant sap; causes plant to wilt and die; nutrient distribution affected; vectors for diseases that may reduce crop yields; reduces surface area for leaf to photosynthesis.

Comments

The performance for this question was average. Common wrong response was that, the insect destroy the plant resulting to the death of plants.

(ii) Explain how this pest is controlled by the use of a systemic pesticide.

Expected Responses

- pesticide absorbed into sap/translocated in the phloem; kills pests feeding on poisoned sap

Comments

This question was poorly answered by a majority of the candidates. Candidates mentioned the spraying of pesticides on the surface of the leaf, absorbed by the system, xylem instead of phloem.

(c) A pesticide application rate on a crop is 1.6 kg in 200 litres of water per hectare.

(i) How much pesticide is needed for 0.45 hectares? (Show your working)

Expected Responses

- 1.6 kg = 1 ha

x = 0.45 ha

$x = \frac{1.6 \text{ kg} \times 0.45 \text{ ha}}{}$

$x = 0.72\text{kg}$

Comments

The performance for this question was average. Candidates used wrong units such as litres instead of Kg.

(ii) How much of this pesticide should be mixed with 8 litres of water? (Show your working).

Expected Responses

- 1.6 kg = 200 litres

x = 8 litres

$x = \frac{1.6 \text{ kg} \times 8 \text{ litres}}{200 \text{ litres}}$

$x = 0.064\text{kg}$ or 64grams

Comments

The performance for this question was average. They used litres instead of Kg on units.

(d) Describe bio-intensive integrated pest management.

Expected Responses

- methods of pest control that do not harm the environment, which starts on diagnosis of the nature and source of pest problems;
- preventative tactics include use predation/parasitism/herbivory/other natural mechanisms; importation/ augmentation/conservation of natural enemies **OR**
- proactive tactics include use crop rotation/ resistant crop cultivars/ disease-free seed/ plants/ crop sanitation/ spacing of plants/ altering planting dates/ mulches

Comments

This question was poorly answered by a majority of the candidates. Candidates failed to describe the system instead they only give examples such as using natural enemies. Some mentioned the use of combination of system to control pest. Others referred to this on using chemicals/pesticides to control pest.

Question 7

(a) What is meant by a balanced ration?

Expected Responses

- contains all nutrients required for healthy growth/ has all required nutrients in correct proportions.

Comments

The performance for this question was above average. Common error, candidates used 'food' Instead of 'nutrient'. They also use the words on the question when defining.

(b) Give any **two** functions of proteins in an animal's ration.

Expected Responses

- replacing worn out tissues; growth; reproduction; production.

Comment

The performance in this question was above average. Common wrong responses were strong bones and teeth, keep animal healthy and proteins are a source of energy.

(c) Suggest **two** reasons for adequate water supply in livestock nutrition.

Expected Responses

- lubricant; solvent; regulates body temperature; aids digestion

Comments

The performance in this question was above average. Common wrong responses were rehydration, transporting nutrients, quenching thirsty.

(d) Fig. 7.1 is a diagram of a digestive system in ruminants.

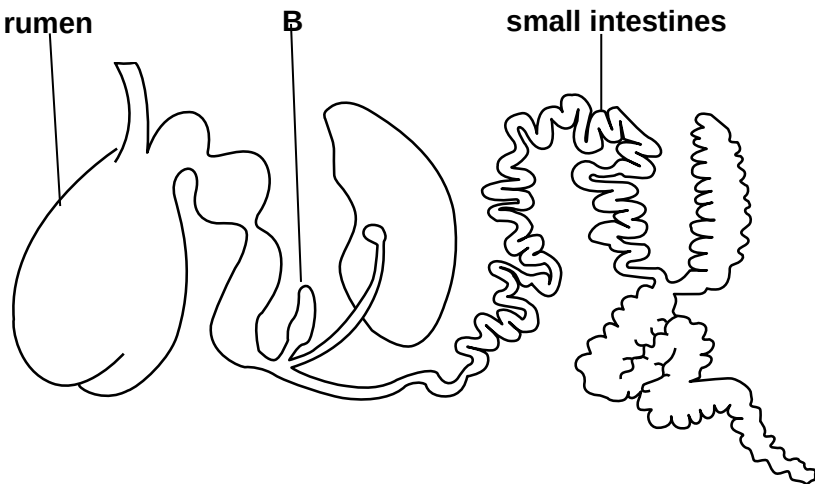

Fig 7.1

(i) Name organ **B** on **Fig 7.1.**

Expected Responses

- **B** – pancreas

Comments

This part of the question had average performance from candidates. Common errors were liver, penis, caecum and bile.

(ii) State the function of the small intestine in the digestive system.

Expected Responses

- most digestion occur; absorption of nutrients

Comments

The performance for this question was above average. Common wrong responses were passage of waste to large intestine, absorption of water/food.

(iii) Suggest any **three** roles of the rumen in the process of digestion.

Expected Responses

- regurgitation; microorganisms; fermentation; churning and mixing

Comments

This question was poorly answered by a majority of the candidates. Common errors were production of proteins, digest cellulose, trap foreign materials and storage of water.

Section B – Essay Questions

Answer any **two** questions from this section **(30 Marks).**

Question 8

(a) Describe any **two** breeding practices in rabbit production.

Expected Responses

- inbreeding; mating closely rabbits of the same breed
- crossbreeding; mating two different breeds
- outcrossing; mating unrelated rabbits of the same breed

Comments

This question was poorly answered by a majority of the students. Fewer candidates selected this question. The candidates failed to describe the breeding practices and further failed to distinguish between them.

(b) Explain with details how you would feed a doe at different stages of production using pellets only.

Expected Responses

- before and after mating; 120g/day for maintenance
- 10 days before kindling; 125g/day to nourish the foetus/ body reserves
- After kindling; as much as they desire until weaning from lactation

Comments

This question was poorly answered by a majority of the candidates. Candidates stated the general, feeding of rabbits such as giving them pellets, water and greens without specifying ages and quantities. Some candidates used wrong quantities e.g. 25 g, 200g; of pellets the specified aged.

(c) Suggest advantages of using indigenous breeds in livestock production.

Expected Responses

- adapted to local climatic conditions/ higher temperatures; disease resistance; hardy/ survives harsh conditions; high fertility; suits local farmers' needs

Comments

The performance for this question was average. Common wrong responses were 'cheap' and 'good mothering ability'.

Question 9

(a) Describe the **two** methods that can be used to collect water for agricultural use.

Expected Responses

- roof into water tanks;
- catchment area into dams/ rivers/ streams

Comments

The performance for this question was average. Common errors were dam construction.

Candidates could not differentiate between collection and storage. They narrated the distribution of water from dams/tanks to the field.

(b) Explain with reasons how water in the soil can be conserved by farmers.

Expected Responses

mulching reduces evaporation; minimum tillage lessens soil exposure; shading reducing direct sunlight; hedge/live mulch reduces evapotranspiration

Comments

The performance for this question was average. Common errors were tanks and dams used for water conservation. Some mentioned drip irrigation, intercropping, irrigating in the afternoon. Candidates had a challenge in differentiating between evaporation and evapotranspiration.

(c) Suggest the positive effects of high temperature on crop growth.

Expected Responses

Increases photosynthesis; increases transpiration so speeds up growth; increases enzyme activity/ metabolism; hastens growth stages; early maturity

Comments

Candidates showed average performance in this question. Common errors:
candidates wrote on negative effects for high temperature such as denature enzymes instead of positive effects as the question requires.

Question 10

(a) Describe any **two** factors considered when selecting a suitable site for farm buildings.

Expected Responses

building faces away from direct sunlight; build against direction of prevailing wind/blind wall should face oncoming wind; distance away from living quarters to reduce smell/ noise pollution; near water and power supply; accessibility for inputs delivery and marketing; gentle sloping land to avoid flooding; use poor soils as fertile soil used for crops; avoid site obstructions; adhere to local government

regulations for security and political stability

Comments

The performance for this question was average. Common errors were: near road misconstrued with accessibility, flat land or good soil, and away from buildings, closer to market to supply customers. Some candidates stated point without describing them.

(b) Explain with reasons how wooden posts could be preserved.

Expected Responses

- soaking end method**;** posts put into oil drum containing creosote for 3 days; more effective when the creosote is heated to almost boiling point and allowed to cool; heat improves sucking in of creosote into posts; turn posts upside down and leave for another 3 days; allow posts to drain in an empty drum; allow posts to dry to prevent termite infestation

OR

Sap displacement method/ end diffusion method; dip freshly cut posts into a drum full of creosote; allow fresh wood to suck creosote into inner tissues; switch sides for wood to allow both ends to suck creosote; creosote will then displace the sap in the cells of the tissues, allow wood to dry

OR

Pressure method/ chamber method; metallic cylinder provides; pressure exerted on the posts forces creosote into the wood; release pressure to allow sap to drain out; creosote replaces sap to treat the wood; allow wood to drain

Comments

This question was poorly answered by a majority of the candidates. Candidates could not describe the process of wood post treatment. Common errors were boiling, cooking, galvanizing, vanishing, painting and covering with plastics.

(c) Suggest advantages of using living fence.

Expected Responses

- cheap; easy to plant; serves as windbreaks; decorative; controls soil erosion

Comments

The performance for this question was average. Common errors were shading, providing oxygen, wind ‘breakers.’

Section C: Comments on the question paper

- A majority of candidates attempted all the questions as per the instructions.
- The allocated time of 2 hours was adequate for writing this paper. Candidates had no challenges of time management.
- There was no common misinterpretation of the rubric.
- The 2024 candidates performed better than the comparable cohort of 2023.

Advice to Agriculture Teachers

- The assessment covers all sections of the syllabus, from the first unit (General Agriculture) up to the last unit (Agriculture Engineering). All questions were fairly attempted by the candidates
- Emphasis should be made on description of experimental procedures and processes in chronological order.
- Candidates should be taught and tested on all levels i.e. in reference to the command words used in the syllabus.
- Further emphasis should be made on the appropriate usage of technical terms used in agriculture when explaining concepts. In most cases, where technical terms are not used appropriately, candidates' responses become unacceptable.
- The performance of candidates in most sections has improved compared to previous years. Further focus is necessary to ensure all sections of the assessment syllabus are sufficiently taught.
- A further need to relate practical work to theoretical facts remains key for understanding of some concepts.
- Teachers should make use of Examination Reports from the previous years as they teach their candidates.

EGCSE AGRICULTURE

Paper 6882/03

Practical Activities

Practical Activities

This paper tests the practical skills, which is objective C of the syllabus. practicals were developed by the Examination Council of Eswatini (ECESWA). Each practical had two sections: practical assessment sheet and processed skills. The practical activities were assessed by the teachers in the centre using the descriptors provided by ECESWA. The processed skills were written as an exam paper in centre and were marked by the teachers at the centre. All centres were able to submit their course work to ECESWA on time.

Registers

All centre submitted their registers. There was an improvement on the filling of registers by most centre. However, there were centre who had no page totals, dates, invigilator's name and signature. In some centre the registers showed only the sampled candidates in the column for script submitted.

Expected: Centre are expected to indicate with three (3) ticks for candidates who have written all three processed skills and indicate with (x) on their candidates who did not write the processed skills. All candidates who have submitted their practical work must be indicated in the registers. Teachers are reminded to complete the registers, sign them, indicate date of completion, as well as the name of the teacher responsible.

Sitting plan

Centre are encouraged to file the sitting plan in the teacher's file. Centre are encouraged to submit the Centre's for the processed skills.

Teacher's File

The teacher's file continues to be a challenge for some centre. There were centres who included candidates' pictures and individual student cards in this file

Expected: All Centre are expected to submit the teacher's file. It should include the following:

- Sitting plan
- Diaries for the centre to show what was supposed to be done or was required by the practical. It should give a guide on what is expected to be seen in the candidates' diaries and should have correct dates. This will assist in the moderation process.

The teacher's file is important as it guides moderation with the correct dates for activities in each centre, it also highlights challenges faced in centres and assist in explaining deviation from the marking guide given by ECESWA.

Sampling

Even this year some centre had incorrect samples. Teachers are expected to sample a wide range of scores: top students, average students and low students. They are to indicate with asterisks (*) the sampled candidates on the Summary Sheet. Packaging of the student files should be according to the scores of the candidates, with the top candidates at the top and low students at the bottom. The sample should include the whole mark range obtained at the centre.

Centre are expected to sample using the sampling procedure indicated in the syllabus:

• Below 10: all candidates

• 11 – 50: 10 candidates

• 51- 100: 15 candidates

• Above 100: 20 candidates

practical's that are not sampled should be submitted in a separate envelope from the sampled work and the envelope should also indicate that these are not sampled work.

Student Card

There was a great improvement on student card, they were correctly placed in individual student's file. However, there were very few centre which omitted the process skills mark. In some centre marks were incorrectly transferred from marking criteria into the student card.

Expected: The student cards must be placed inside the student file and must be on top of the work. Whole numbers should be used when filling the individual student card. Marks obtained by the student on the processed skills must be included on this card. Teachers are also encouraged to cross check student card's mark, with mark awarded on the marking criteria or processed skill mark.

Teachers are encouraged to ensure all candidates write all three process skills and do all three practical's as they are all needed in the computing of the final mark of the candidate**.** Teachers are reminded to include the marks for processed skills in the first column of the student card.

Summary sheet

There was an improvement on the summary sheets. However, the following challenges were still noted on some Summary Sheets:

• Some centre had totals which were not correlating with the marks awarded (incorrect adding)

• Few centre had no centre details, that is centre name or number

• Candidates with no marks or indication of being absent

• No teacher's details (name or contact number)

• No principal stamp or signature

• Loose sheets

• In some centre it was difficult to read numbers, as some teachers would write on top of another number or the numbers not clearly written

• Processed skill marks not included

• Some centre did not have asterisk (*) for the sampled candidates

Expected: Centre are to indicate in the Summary Sheet if a student is absent or missing and this should be in line with the register. They should thoroughly check if the marks are completed, and the totals are correct. No decimal should appear on the Summary Sheet. All Summary Sheets should have the teacher's detail, principal signature and school stamp.

Practical Tasks

The practical's received this year were as follows:

• Transplanting vegetables

• Dressing and marketing broilers

• Making silage

Teacher's comments

There was a slight improvement in teacher's comments this year. However, there were centre without teacher's comments. Very few centres had detailed comments justifying mark awarded to candidates. In some centre, the comments were of lower quality. Comments that were provided included the following: good, fair or excellent. In some centre the comments were just based on one descriptor.

Teachers are encouraged to make comments as they serve as a justification for the mark awarded.

Expected: Teachers should make specific and detailed comments and they must be relevant for the practical.

Evidence

Even this year there was a decline on the evidence given by centre. The quality of the evidence given was low. This year some of the pictures and diaries submitted were irrelevant for the given practical's. Some centre submitted diaries that are scanty, and some were not marked. Most diaries were lacking critical information and observations were not clearly stated. Some candidates were confusing activities with observations. In some centre, some of the events were not logical e.g. task 1 topdressing done a week after transplanting.

Expected: pictures provided should show the candidate doing the specific task. Diaries should include major activities for the task.

Processed skills

This year there were some candidates who missed one or two or all three process skills.

Expected: All candidates are expected to sit for all three process skills examination for that year, as process skills are a component for paper 3

1. Diaries

This year diaries were a challenge for most centre. Candidates were expected two write managements activities for two weeks after transplanting. In some centre candidates mainly focused on seedbed preparation missing out the two weeks required by question 1. Other centres provided information which was scanty or not logical. The observation section was left blank or with few observations noted.

Expected: candidates were expected to have dates in chronological order, give account of the major activities and observations that are relevant to the task.

2. Calculations

Some Centre had challenges with calculations. The working was not shown but only the answers, whilst in other centres wrong units were used. Centres are encouraged to state the formula (if need be), show working and use relevant units. In most centre candidates were unable to calculate seedling survival percentage, amount of fertiliser and the killing out percentage.

Expected: candidates are to show the working clearly and use the correct units.

3. Graphs

Drawing of bar graphs continued to be a challenge for some centre. Some bar graphs had incorrect scaling making it difficult to plot. Some of the axes were not well labelled, plotting was mostly incorrect and most graphs had no titles. For Centre the bar graphs were not drawn at all.

Expected: candidates were to draw bar graphs with title, label all axis and use correct scale in order to plot correctly.

4. Tables

The filling of tables was a challenge for most centre. For task 1 candidates recorded plant heights which were either too short or tall for the stipulated. In task 2 live weight and carcass had very little difference which was not realistic. In both task 1 and 2 some candidates failed to use the given units in the table subheadings making their records to be exaggerated.

Expected: candidates are expected to use the given units in the subheadings, take records from their diaries and give realistic figures.

5. Predictions

This section was also a challenge for most centre, candidates failed to make prediction of what could be the effect of delayed transplanting in task 1. In task 3 most candidates could not predict effect of keeping silage longer and the effect of silage on milk production.

Expected: candidates were expected to make prediction using their observations e.g. silage bottle after four weeks or make predictions with known knowledge.

6. Drawings

This section was mostly done well by most candidates. Silage bottle was well drawn by most candidates and it had relevant labels.

Expected: candidates were expected to draw silage bottle with at least three relevant labels.

Marking of processed skills

In some centre marks were allocated without ticks, whilst others had ticks without marks being allocated. Some centre allocated marks more than the expected mark for the question. In some instances teachers were awarding marks to incorrect answers not following the given marking guide.

Expected: Centre were expected to allocate marks according to the facts given by the candidates. Teachers are expected to mark all the work written by candidates and award marks according to the facts given and using the mark scheme sent by ECESWA.

Cover letter

There was a higher number of absent candidates especially for the process skills. Most of the centre submitted cover letters without head teacher's signature, stamp and contact details.

Expected: all absent candidates and Summary Sheets with zeroes should be accompanied by a covering letter with a valid reason. This letter should be checked and signed by the head of centre.

Packaging

Few Centre still fail to use simple folder and strings for their packaging. In some centre, they submitted loose materials in the individual candidate file. The individual files should have strings to avoid the candidate's work being misplaced or mixed-up during handling and moderation. Very few centres had no files at all. In some centre paper 3 and 4 were packed in the same candidate's file.

Expected: Centre are to submit their work in simple folders fastened secured with strings. Centre are discouraged to bind their work. Paper 3 and 4 are different papers they should be filed in different files and packaged into separate envelopes, with their own cover letters.

General comments

The number of absent students was higher this year. Teachers are encouraged to grade and submit the work done by the candidates. Teachers are encouraged to cross check marks in the summary sheet with the total mark given for each candidate. Individual file for candidate should have centre name and number and the candidate number.

Recommendations

Teachers who had just joined the profession are encouraged to consult ECESWA regarding the expected procedures for assessment. It is also recommended that teachers continue to share ideas within the department to minimize variation in the standard of work submitted by the centre. Teachers are still encouraged to respond promptly when clarity is required regarding their course work.

EGCSE AGRICULTURE

Paper 6882/04

Project Work

General Comments

This paper tests students on practical skills, which is objective C in the syllabus. There was an improvement in the quality of the work presented in this paper, compared to last year, 2023.

Appropriateness of the projects chosen

All the topics chosen were relevant and specific. This year, there was an improvement in the quality of topics chosen. However, most centre presented projects that were concentrated on vegetables and livestock and there was no spread/distribution of topics across the syllabus. Teachers should ensure that topics are well spread over the syllabus content.

Teacher supervision

This year, there was an improvement in teacher supervision, compared to the previous year, 2023, as teachers followed the new guideline in the syllabus. A few centre, however, still need to improve on candidates' supervision, throughout the project (both practical and write-up aspect of the project).

Topic, table of contents, bibliography

This section was well presented by most centre. Topics were clear and relevant to the syllabus, table of contents well presented with clear page numbers. However, a few topics did not show the dependent variable, other centre omitted the list of tables and charts. Centre need to improve on reference citing. Centre are also encouraged to provide evidence in the form of diaries and pictures.

Presentation of Introduction

The introduction section was well presented by most centres as outlined in the guideline. However, the background required improvement by showing both variables under study. Objectives need to also show both variables. The importance of the study needs to focus on how the outcome will improve future production.

Limitations

Limitations are problems encountered during the study. This section continued to be a challenge. Limitations were listed without explaining how they affected the study and suggesting possible solutions to them. Some centre were writing this section in future tense while some omitted this section completely. Centre are encouraged to ensure that candidates identify, assess, and suggest improvements to the limitations of the project.

Literature Review

This component was well presented. However, students need to stick to the one-page length (typed) or two pages handwritten, and ensure that citations are at least 4. Centre are encouraged to present literature that is at the level of the candidates and use proper citation standards.

Methodology

This year, there was a decline in the presentation of the project plan. Most centre still presented a scanty plan. The plan should be detailed, showing research design, materials used and their uses, procedure followed (showing dates and how work was done from preparations up to harvesting/ slaughtering or marketing), layout, randomization, replication, population and sampling, data collection, data analysis and data presentation format. Some centre presented a procedure which was shallow and without dates when work was done, materials without uses. Some centre presented a plan with the procedure but without data collection, data analysis and data presentation format. Others were confusing data analysis with data presentation format; while others were confusing data collection with data analysis format, in plan. Centre are encouraged to abide by the syllabus guideline. Data collection and analysis need to be presented per objective.

Results and deductions

Results:

This year, there was a slight drop in this section, as some candidates did not present data for all the objectives. A few centre presented data using tables which were interpreted, graphs and charts labelled, with proper scaling and drawn in graph papers.

Tables have to be labelled and interpreted, graphs and charts drawn on graph papers and not in lined papers. The key is always necessary. Some centre still presented a shallow data. Tables, charts and graphs for some centre were still not labelled and without brief interpretations, there was very little variation in data presentation i.e., tables, pie charts, histograms, bar charts, linear graphs (showing S.I. units) used for different objectives. Very few candidates did not have data at all. Some centre presented unrealistic data in this section.

Data for each objective should always be presented in a table first, before drawing the graphs or charts. Teachers should advise candidates to use different patterns to differentiate the variables in the charts or graphs. Teachers are also encouraged to ensure that candidates do the investigatory project and ensure that data is properly collected.

Discussion:

This year, there was a drop in citations in this section. The major challenge of this section is that a majority of the centre did not justify or express their results and give reasons for the differences. This section is the core of the project. It should give a clear picture and understanding of the whole project. The deductions should cover each of the objectives (stated in chapter 1) under study.

Summary, conclusion and recommendations

Summary:

Few centres did not include findings of the study in the summary.

Conclusion:

Most centre were able to relate their conclusion with the hypothesis, however a few centres still had a challenge in relating the conclusion with the hypothesis. Conclusion should be for each objective.

Recommendations:

There was a slight improvement in the presentation of recommendations this year, by most centre. Candidates are expected to recommend based on the findings of the study and recommendations should be for farmers and for further studies, as stated in the syllabus.

Problems encountered:

Centre are encouraged to ensure that candidates identify problems and suggest solutions to them (limitations).

Sampling:

Proper sampling should be done across the mark range. Centre are encouraged to abide by the numbers stipulated in the syllabus, while sampling i.e.

Total number of candidates	Sample size
0-10	All files
11-50	10
51-100	15
101 & above	20

Each sample needs to consist of the top, middle and bottom students. Sampled candidates should be indicated with an asterisk in the summary sheet.

Packaging:

Paper 4 files should be packaged separately from paper 3 files, with its attendance register, MS1, and summary form, as well as cover letter if need be. Entire material in files should be held with strings, including individual students' cards.

General Comments

There was a slight improvement in the standard of projects, this year, owing to the new guide in the syllabus. Very few centres submitted loose projects without files. Very few others submitted files without strings. A few projects were incomplete with one or two chapters. Absent students should be accompanied by a covering letter and candidate's work must be recorded up to the period when he/ she left school. Teachers are discouraged from awarding zeroes to candidates when they have been in the centre participating in learning.

Proper calculations of marks should be done. Whole figures should be written in summary sheets, without decimals.

Punching and stapling of MS1 is unacceptable. Marks should be entered and shaded correctly in the MS1. In the case of an absent student, an A should be written and shaded, using HB pencils only and not ink, in the MS1. Both shading and signing of MS1 should be done using a pencil.