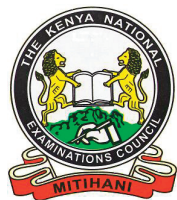


443/3 Instr. to Sc.  
**AGRICULTURE PROJECT**  
**Paper 3**  
**Jan - Sept 2016**



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**  
**Kenya Certificate of Secondary Education**  
**AGRICULTURE PROJECT**  
**Paper 3**

**Instructions to Schools**

*Each school presenting candidates for Agriculture (443) in the KCSE examination for the year 2016 will receive **two** copies of this document. One copy of the document will be for the Head teacher and the other one for the teacher in charge of Agriculture project examination hereafter referred to as the Agriculture teacher.*

*The Head teacher and the Agriculture teacher should each read the document carefully. Relevant information should then be conveyed to the candidates as soon as possible to enable them to carry out the project in good time.*

*There are two alternative projects, namely **Project A** and **Project B**. Each school should select only **one** alternative. It is therefore necessary for the Agriculture teacher to discuss the alternatives with the Head teacher and with the candidates so as to select the most appropriate alternative.*

*The Agriculture Teacher will mark all candidates' projects.*

*The project should be accessible to authorised KNEC agent(s).*

**This paper consists of 05 printed pages.**  
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## GENERAL INSTRUCTIONS

1. *The Agriculture Teacher should brief the candidates on the requirements of the projects as soon as the school receives this document from the Kenya National Examinations Council (KNEC). The candidates, the Agriculture teacher and Head teacher should then discuss the alternative projects and make a suitable choice.*
2. *The school should provide the candidates with adequate equipment and inputs for their projects.*
3. *The candidates should be instructed to keep records of their activities and observations which they shall use to write the final project report.*
4. *Each candidate should be supplied with an adequate number of ruled A4 papers on which to write the project report. The report should be between 1,000 and 1,500 words.*
5. *In addition, each candidate should be given a declaration form which will make the first page of the report.*
6. *The school should provide adequate security for the candidates' projects.*
7. *The project chosen by the school must be seen and treated as an examination. It must therefore be the candidates's true and unaided work. At the same time the scores awarded by the Agriculture teacher must be objective and confidential.*
8. *The Agriculture teacher should assess each candidate's project from time to time using the marking scheme provided by the KNEC and enter the marks in the project assessment sheets. It is **absolutely important** that the marks are entered in the project assessment sheets **immediately** after each assessment.*
9. *The Head teacher must keep all the project assessment sheets under lock and key in his/her office in a sealed envelope; and make them available **only** to the Agriculture teacher whenever the teacher is going to assess the project or an authorised KNEC agent. The sheets must be returned to the Head teacher immediately after each assessment. The Head teacher should check to ensure that scores are entered on the assessment sheets after every assessment. In the absence of the Head teacher, the Deputy Head teacher should be in charge of the custody of the documents.*
10. *At the end of the assessment, the Agriculture teacher should transfer the total score of each candidate from the assessment sheet to the manual mark sheet. The index numbers of candidates should be entered in ascending order ensuring that all candidates **have the same index numbers as registered for KCSE examination.***
11. *The Agriculture Teacher should write a brief report about the centre using the centre report form provided by the KNEC.*
12. *At the end of the project, the Head teacher **must** ensure that the assessment sheets and manual mark sheets are duly filled, signed and stamped. All the candidates' project reports, project assessment sheets, manual mark sheets and project report form for the centre are packed and **handed over to the District Education Officer by 30<sup>th</sup> September 2016.***
13. *The District Education Office will then hand over **all** the documents to the Kenya National Examinations Council by **31<sup>st</sup> October 2016.***

## PROJECT A: CHICKEN REARING

1. This project shall be carried out in the second term of form IV, but the school should start early preparations such as making/ buying cages, procuring chicks and brooding them, etc. in first term. The candidates should conclude the project at the end of the 12<sup>th</sup> week of second term, when they should hand over the project to the school. The school should then make appropriate decision and arrangement on how best to rear the chicken or dispose of them.
2. Schools choosing this project shall be required to provide each candidate with the following facilities:

### (a) Cages

Each candidate should be provided with a cage during the second week of second term, at the latest. The cage may be bought or made by the school. The dimensions of the cage should be 50 cm long, 45 cm wide and 45 cm high; or large enough to accommodate two layers. It is important to ensure the following:

- (i) The cage should be well ventilated and lit.
- (ii) The roof should be waterproof, if the cage is to be kept outdoors.
- (iii) The floor of the cage may be weld mesh / slatted timber to allow droppings to fall to the ground or be made of boards or planks of wood, in which case litter will be used to keep the floor dry.
- (iv) Cages may be singly or in several units attached horizontally. The cages may be placed on top of each other up to a maximum of three tiers.
- (v) Cages can be placed indoors or outdoors depending on design and security arrangements.
- (vi) Each cage should be lockable. One of the keys to the cage should be labelled and kept at the Head teacher's office. The other key should be kept by the candidate for regular use.

### (b) Growers (Pullets/cockerels)

- (i) A school selecting this project should acquire the chicks as early as possible during the first term to be able to brood and rear them up to the age of 9-12 weeks before giving them to the candidates. Alternatively the school can buy growers of 9-12 weeks of age.
- (ii) During the third week of second term, each candidate should be provided with two commercial hybrid pullet cockerels 9-12 weeks old.
- (iii) The school may obtain hybrid chicks or growers from any reputable source. Broilers should **not** be used for the project.

**Note:** Procurement of chicks or growers is the responsibility of the school and not that of the Kenya National Examinations Council (KNEC).

**(c) Weighing machine**

The school should provide a portable weighing machine such as a spring balance, that can be used to weigh up-to 5 kg.

**(d) Feeds**

The school should provide enough growers mash and vegetables to each candidate for feeding the chickens.

3. After the candidates have been provided with the facilities outlined in (2) above, they should be instructed to:
  - (a) Write their Index Numbers clearly on their cages.
  - (b) Weigh the two chickens accurately and record their average weights on a record card.
  - (c) Rear the chickens up to the 12<sup>th</sup> week of second term.
  - (d) Keep records of the activities carried out and observations made during the rearing period. These records will be used by the candidates to write their final report. The records should be written on a record card and hung securely inside the cage.
  - (d) Avail the records to the Agriculture teacher or KNEC agent whenever required.
4. The Agriculture teacher should assess each candidate's project three times using the marking scheme provided by KNEC. The assessments should be done during the 5<sup>th</sup>, 8<sup>th</sup> and 11<sup>th</sup> weeks of second term. Each assessment should be out of 24 marks. At the end of the 3<sup>rd</sup> assessment, the teacher should add up all the marks out of 72. The aspect of initiative/ originality should be assessed once. It carries a maximum of 8 marks, bringing the total score to 80 marks.
5. The Agriculture teacher should mark each candidate's project report out of 20 marks using the guidelines provided by KNEC. All the marks for each candidate should be entered in the appropriate column of the assessment sheet.
6. The total score of each candidate should be transferred from the assessment sheet to the manual mark sheet. The Agriculture teacher should ensure that the marks are entered in ascending order of index numbers.

## **PROJECT B: PRODUCTION OF MILLET / MAIZE / SORGHUM**

1. The Project work should be carried out by the candidates in the Form IV class between January and September 2016.
2. A school may select one of the following crops for its candidates' project:
  - maize;
  - millet;
  - sorghum.

The variety chosen should be suited to the ecological zone of the school.

3. Each candidate should be allocated a piece of land measuring 4m x 3m on which to carry out the project. The plots should be uniform in soil characteristics and topography as much as possible. Paths not less than 50 cm wide should be left between the plots. The plots should be numbered according to the candidates' Index Numbers in ascending order. The plots should be allocated to the candidates by the end of January 2016.
4. After plot allocation, candidates should be instructed to grow the selected crop up to harvesting by applying appropriate agronomic and management practices.
5. The Agriculture Teacher should assess each candidate's project at least four times using the marking scheme provided by KNEC.
6. The Agriculture Teacher should mark each candidate's project report out of 20 marks using the guidelines provided by KNEC. All the marks for each candidate should be entered in the appropriate column on the assessment sheet.
7. The total score of each candidate should be transferred from the assessment sheet to the manual mark sheet. Ensure that these scores are entered according to candidates' index numbers in ascending order.
8. The project should be concluded and handed over to the school by September, 2016.

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