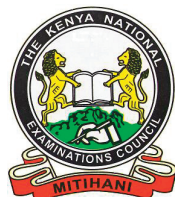


443/3 MS  
AGRICULTURE PROJECT  
MARKING SCHEME  
Paper 3  
Jan. - Sept. 2016



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**

**Kenya Certificate of Secondary Education**

AGRICULTURE PROJECT: (443/3)

MARKING SCHEME

**(CONFIDENTIAL)**

This marking scheme is to be used when assessing the candidate's project.

The Agriculture Teacher concerned with the project assessment is reminded to keep this information confidential. No **candidate** or any **unauthorised** person should have access to this information either directly or indirectly.

**This paper consists of 08 printed pages.**

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## PROJECT A: CHICKEN REARING

### GUIDELINES FOR MARKING CANDIDATE'S PROJECT REPORT

The project report should be assessed out of 20 marks. The guidelines below should be followed to arrive at an objective score.

Aspect of the project report			Maximum Score
1. Project title	-	Appropriate Title	$\frac{1}{2}$
	-	Clearly written	$\frac{1}{2}$
2. Introduction	-	Stating aim of project	1
	-	Type of birds kept	1
3. Housing	-	Description of the cage	1
	-	Siting of the cage	1
4. Feeding	-	Feeder used and placement	1
	-	Appropriate feed and quantity given	1
	-	Supplementary feeds provided	1
5. Watering	-	Waterers and placement	1
	-	Supply of adequate water	1
6. Health	-	Disease control	1
	-	Parasite / pest control measures	1
7. Observation	-	Achievements made, problems encountered and action taken	2
8. Illustrations	-	Tables/drawings	2
9. Results	-	Consider results in relation to the aim and management of project	2
10. Conclusion and Recommendations	-	Consider consistency of the conclusion with the aims and operations	2
<b>Total</b>			<b>(20 marks)</b>

**PROJECT B: PRODUCTION OF MAIZE / MILLET / SORGHUM  
GUIDELINES FOR MARKING CANDIDATE'S PROJECT REPORT**

The project report should be assessed out of 20 marks. The guidelines below should be followed to arrive at an objective score.

<u>Aspects of the project Report</u>		<b>Maximum score</b>
1.	Project title	
	- Clearly written	$\frac{1}{2}$
	- Appropriate title	$\frac{1}{2}$
2.	Introduction	
	- Stating the aim of the project	1
3.	Seedbed/land preparation	
	- Clearing the land using pangas/slathers	$\frac{1}{2}$
	- Primary cultivation	$\frac{1}{2}$
4.	Preparing the land to appropriate tilth using jembes / fork jembes / secondary cultivation	$\frac{1}{2}$
4.	Planting	
	- Selection of appropriate variety of the crop	$\frac{1}{2}$
	- Appropriate preparation of planting materials	$\frac{1}{2}$
	- Application of manure/appropriate fertilizer	$\frac{1}{2}$
	- Details of planting procedure appropriate to the seeds	$1\frac{1}{2}$
6.	Weed control	
	- Time of weed control	$1\frac{1}{2}$
	- Types of weeds	
	- Methods of weed control	
7.	Pest control	
	- Types of pests identified	$1\frac{1}{2}$
	- Nature of damage caused	
	- Control measures taken	
8.	Disease control	
	- Symptoms of diseases identified	1
	- Control measures taken	
9.	Other crop management practices	
	- Mulching, thinning, gapping and watering	2
	- Soil and water management	
10.	Observations	
	- Achievements	3
	- Problems experienced	
	- Corrective action	
11.	Harvesting	
	- Method	$1\frac{1}{2}$
	- Timeliness	
	- Tools	
11.	Result/ yield	
	- Considering quality and quantity obtained in Relation to the expected outcome/ standards	2
12.	Conclusions and recommendations	
	- Consistent with the aim/ management of the project	1
	<b>Total</b>	<b>20 marks</b>

## PROJECT A: CHICKEN REARING

### GUIDELINES FOR MARKING CANDIDATE'S PROJECT

PARAMETER	INDICATOR	MARKS
<b>1. FEEDING</b>		<b>4 <math>\frac{1}{2}</math></b>
(a) Feeders (2 marks)	Clan	1
	Correct height	1
(b) Feed use (2 $\frac{1}{2}$ marks)	Correct type	$\frac{1}{2}$
	Appropriate quantity	$\frac{1}{2}$
	Fresh	$\frac{1}{2}$
	Absence of spillage	$\frac{1}{2}$
	Absence of soiling	$\frac{1}{2}$
<b>2. WATERING</b>		<b>4 <math>\frac{1}{2}</math></b>
(a) Waterers (2 marks)	Clean	1
	Correct height in relation to age	1
(b) Water (2 $\frac{1}{2}$ marks)	Appropriate quality	$\frac{1}{2}$
	Appropriate quantity	$\frac{1}{2}$
	Fresh	$\frac{1}{2}$
	Absence of spillage	$\frac{1}{2}$
	Absence of soiling	$\frac{1}{2}$
<b>3. HEALTH OF CHICKEN</b>		<b>9</b>
(a) Signs of good health (3 marks)	Any 6 x $\frac{1}{2}$	3
(b) Successive weight gain (2 marks)	Any 4 x $\frac{1}{2}$	2
(c) Parasite control (2 marks)	Absence of signs parasite infestation	$\frac{1}{2}$
	Absence of parasites	$\frac{1}{2}$
	Evidence of parasites control	$\frac{1}{2}$
	Effectiveness of control	$\frac{1}{2}$
(d) Disease control (2 marks)	Absence of disease symptoms	$\frac{1}{2}$
	Disease absent	$\frac{1}{2}$
	Presence of disease control measures	$\frac{1}{2}$
	Control measure effective	$\frac{1}{2}$

PARAMETER	INDICATOR	MARKS
<b>4. MANAGEMENT OF DROPPINGS</b>		<b>2</b>
(a) Birds kept in wire cages/slatted floors (2 marks) or	Absence of droppings accumulation on ground floor	1
	Absence of droppings accumulation on cages / slat floor	1
(b) Birds in deep litter (2 marks)	Absence of wetness on litter	$\frac{1}{2}$
	Suitable litter material	$\frac{1}{2}$
	Appropriate depth of litter	$\frac{1}{2}$
	Evidence of litter turning	$\frac{1}{2}$
<b>5. GENERAL CLEANLINESS</b>		<b>1</b>
(a) Absence of dust		$\frac{1}{2}$
(b) Absence of cobwebs		$\frac{1}{2}$
<b>6. RECORD KEEPING</b>		<b>3</b>
(a) Records	Health records	$\frac{1}{2}$
	Weight gain records	$\frac{1}{2}$
	Feeding	$\frac{1}{2}$
	Up to date records	$\frac{1}{2}$
	Accurate records	$\frac{1}{2}$
	Clean records	$\frac{1}{2}$
<b>7. SUB-TOTAL (for each assessment)</b>		<b>24</b>
<b>8. TOTAL (for three assessment)</b>		<b>72</b>
<b>9. INITIATIVE/ ORIGINALITY</b>		<b>12</b>
Initiative/originality (any 4 x 2) Consider any unique practices carried out by a Candidate to promote growth and health of chicken	Initiative present	$\frac{1}{2}$
	Initiative appropriate	$\frac{1}{2}$
	Initiative timely	$\frac{1}{2}$
	Initiative effective	$\frac{1}{2}$
<b>10.</b>	<b>TOTAL MARKS</b>	<b>80</b>
<b>NOTE: The marks awarded can be reduced in multiples of <math>\frac{1}{2}</math> mark depending on the performance of the candidate.</b>		

**PROJECT B: PRODUCTION OF MAIZE / MILLET / SORGHUM  
GUIDELINES FOR MARKING CANDIDATE'S PROJECT**

<b>PARAMETER</b>	<b>INDICATOR</b>	<b>MARKS</b>
<b>1. SEEDBED / LAND PREPARATION</b>		<b>20</b>
(a) Timeliness of land preparation in relation to other candidates (3 marks)	Late	1
	Moderate	2
	Early	3
(b) Bush clearing (3 marks)	Slashing	1
	Trash collection/removal	1
	Use of appropriate equipment	1
(c) Primary cultivation (3 marks)	Deep digging	1
	All weeds removed/destroyed	1
	Soil slices turned	1
(d) Secondary cultivation (3 marks)	All establishing weeds destroyed	1
	Moderate tilth/fine tilth according to crop	1
	Soil firmed	1
(e) Correct plot dimensions (4 marks)	The 4 edges x 1	4
(f) Straightness of edges (4 marks)	The 4 edges x 1	4
<b>2. CROP ESTABLISHMENT</b>		<b>13</b>
(a) Timeliness of planting in relation to other candidates (3 marks)	Late	1
	Moderate	2
	Early	3
(b) Depth of planting (2 marks)	Too shallow/deep	0
	Moderate	1
	Correct depth	2
(c) Spacing (2 marks)	Inter row	1
	Intra row	1
(d) Plant population (3 marks)	Too high/low	1
	Moderate	2
	Correct	3
(e) Number of plants per hole unit area (1 mark)	Less/more	0
	Correct	1
(f) Straightness of rows (2 marks)	Lengthwise	1
	Width wise	1

PARAMETER	INDICATOR	MARKS
<b>3. WEED CONTROL</b>		<b>12</b>
(a) Timeliness (3 marks)	Weedy plot	0
	Moderately weedy	1
	Scanty weeds	2
	Weed free	3
(b) Thoroughness of weeding (2 marks)	Many weeds persisting	0
	Some weeds persisting	1
	Weed free	2
(c) Effect of weeding on the crop (3 marks)	Absence of burying	1
	Absence of injury	1
	Absence of exposed roots	1
(d) Maintenance of plot edges (4 marks)	The 4 edges x 1	4
<b>4. PEST CONTROL</b>		<b>4</b>
(a) Signs of pest attack (1 mark)	Absence of signs of pest attack	1
(b) Evidence of pests (1 mark)	Pests absent	1
(c) Evidence of pest control measures (1 mark)	Presence of pest control measures	1
(d) Effectiveness of the pest control measures (1 mark)	Control measure effective	1
<b>5. DISEASE CONTROL</b>		<b>4</b>
(a) Symptoms of disease infection (1 mark)	Absence of symptoms	1
(b) Evidence of disease (1 mark)	Disease absent	1
(c) Evidence of disease control measures (1 mark)	Presence of disease control measures	1
(d) Effectiveness of the pest control measures (1 mark)	Control measure effective	1
<b>6. SOIL AND WATER MANAGEMENT</b>		<b>9</b>
(a) Soil erosion control (3 marks)	Absence of signs	1
	Evidence of soil erosion control	1
	Control measures effective	1
(b) Soil fertility (3 marks)	Absence of infertility signs	1
	Evidence of fertilizer application	1
	Fertilizers effective	1
(c) Water conservation (3 marks)	Absence of water wastage	1
	Evidence of water conservation	1
	Conservation measures effective	1

	PARAMETER	INDICATOR	MARKS
<b>7.</b>	<b>HARVESTING AND HANDLING</b>		<b>5</b>
(a)	Timeliness (1 mark)	As per the crop requirements	1
(b)	Effectiveness of harvesting (4 marks)	Appropriate method used	1
		No spillage	1
		No soiling	1
		Complete harvesting	1
<b>8.</b>	<b>YIELD OBTAINED</b>		<b>8</b>
(a)	Quantity harvested related to the standard per hectare (5 marks)	20%	1
		40%	2
		60%	3
		80%	4
		100%	5
(b)	Quality harvested compared to other candidates in the class (3 marks)	Low	1
		Average	2
		High	3
<b>9.</b>	<b>INITIATIVE AND ORIGINALITY</b>		<b>5</b>
	Consider any other unique practices carried out by a candidate to improve the growth and performance of the crop. Any 5 x 1.		5
<b>10.</b>	<b>TOTAL MARKS</b>		<b>80</b>
<b>NOTE: the marks awarded can be reduced in multiples of <math>\frac{1}{2}</math> marks depending on the performance of the candidate.</b>			

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