ELDORET EAST INTERSCHOOL EXAM
443/1
AGRICULTURE
MARCH /APRIL 2010
F4
MARKING SCHEME

1.It is slow down speed of run off hence reduces the poer of water erosion
reduces the volume opf run off
Traps soil sediments

2. If one enterprise fails the former can still rely on the other one
Crop residue acts as animal fgeed
animal waste is used as manure
Ensure maximum land utilisation
Ensure maximum utilisaiton of labour

3.Mixed cropping- planting of two or more cropsa in the same field but
intercropping -plnting of two or more crops inthe same fields

4.Sack plants suck using wilting /stunted growth
some injection toxic saliva /secretion which causes distorted growth/Death of plants
Transmit disease causing agent/ pathogens
Inflict wounds/ opening for entry of secondary infection
Lower crop yield

5.Control soil erosion
M9inimise costs of land proeparation
Conserve sil moisture
Minimise groth weeds
Avoids disturbance of root crops

6. parent material
Living organisams
topography
Climate
Time

7.To facilitate easy harvresting
Help to control diseases

Facilitate penetration of light
to avoid soiling of fruits
/clean fruits are harvested
faclilitate penetration fo chemicals

8. Fencing of water saurces
controling soil erosion
planating grass on the river banks
Using intergrated method of pests/ weed control / avoid use of agro chemicals
Use of organic fertilisers

9.Reduce the speed of raindrops hence increase infiltration
Reduce the speed of surface run off facilitating percolation
Prevent direct sunlight reducing evapouration
Improves soil structure improving infiltration

10.Earthing up
ii) Facilitate root expansion
conserve soil moisture
Easy supervision farm
Facilitate mechniasation

11. saves time and money
Make it easy for sound plan eg rotation programme
Soil conservation programme can be carried out easily
Easy supervision of farm
facilitate mechanisation

12.Pinching out -removal of terminal buds in crops like tobacco and tomatoes
Copiccing -this is cutting of branches at specified points to achieve the desired shapes

13.Facilitate easyy root penetration
Facilitate drainage is soil
Avoid accumulation of salts
to facilitate aersionof the soil.

14. Trellishing -supporting crop by use of wire or sisal
propping - supporting crops by use of Y shaped pegs ag in banana.

15.a) By use of pipe
Use of containers
Use of canals

b)Expensive to undertake
pipes can be broken during land preparation / weeding
Nozzles can be blocked

SECTION B

16. a) Trench silo
b) Y- Polythene paper
N- Ensiled material
X - Drainage
M- Soil layer
c) Prevents entry of oxygen hence encouraging anaerobic respiration
prevents entry of water

17.a) Sledge hammer -flattering /straightening metals/ shaping stones
claw hammer -For driving in/ removing the nail from the wood / strightening bent nail
(mark as a whole)
Rasp- for smoothening rough wood sruface
File - for sharpening futting edge of tools e.g panga
(mark as a whole)
b) Handle tools correctly to avoid damage
Tools should be used for corect purposes
Tools should be maintained and serviced for efficiency

18. a)Nut grass/ Cyprus rotundas
b) presanceof nuts
c) Allelopathic -they are capable of producing poison which inhibits the growth of neighbouring plants.
c) Kill the cells
inhibits photosynthesis
causes abnormal tissues development
Inhibits photosynthesis
Inhibit resoiration
e) Opens up soil to allow aeration
cheap compared to use of chemicals
it doesnt cause pollution
It leads to earthing up in crops which has various advantages

19. a) Zigzag method
b) clear ve3getation from sampling spot
Makes a vertical cut 15-20 cm deep for crop land /5cm in pasture land
put the soil in clean polythene bag using different parts of the field (15-20)
Repeat the above steps in different parts of teh fields

Mix teh soil from different spots thoroughly and dry
-sub sample is taken for testing in the laboratoory
Follow the steps

SECTION C

20.a) Topography - the rate of soil erosion is high on steep slopes
soil type- soils like sandy soils are easily eroded
Rainfall intensity- High rainfall intasity leads to more run off hence high erosion
Soil depth- shallow soils get saturated easily hence it is easily eroded
vegetation cover-Good vegetation cover holds soil particles together, reduce impact of rain drop and surface run off.

b)Use of;
Grass strip-these ones reduce speed of run off water
Covering cropping- the crops cover the soil hence minimising impact of rain drops
Mulching-- this iensures good soil cover and reduces speed of run off water
good cropping system- Ensures soil particles are held together / cover the soil hence preventing erosion.
Strip cropping- Reduces speedof running water hence minimising soil erosion
Afforestation/ reafforestation- this ensures good soil cover ,roots hold soil particles togethwer hence minimising erosion.
Agro-forestry - In this system there is improving root system shich faiclitates infilktration of water.

21. a) i) collective land tenure system
-land is owned collectively byu a group of people
- there is binding factor eg clannism of coperative member
- Each member has equal rights to use the land
-can be co-operative or communal.

ii)state ownership of land
-land is owned by state / government
- govertnment controls the land use
-the system generates income for the government
-The income is disributed to citizens

iii) Individual tenure system
-land is owned by an individual
-The individual operates or leaves it to another person
-can be individual owened operator, land lordship .concession/company

b)Encourages conservaiton measure/ improving of land
-Increases productivity of both land and labour
-Encourages commercial instead of subsistence production /creates employment
-create security of tenure
-Ensure utilisation of unused land.

22.clearing the site/remove the trash
-Dig out the bed
Harrow he bed to attain five tilt
Apply manure phosephatic fertiliser

b) shallow drills 10-20 cm apart are ade
seeds are drilled uniformly
Seeds are covered with light soils
Organic mulsch is aded

c)water is done regularly
shade is evicted when seedling have germinated
Weeds control is done by uprooting
Picking out is done in case of over crowding
Pests are controoled by application of pestcides
Disease are controlled by application of appropriate chemical
Seedling are hardende off gradually by reducing waterand shade

d)Seedling are ready to trnspllant one month after sowing
Healthy and vigorous seedling are lifted up with a lamp of soil
Watering is done early before lifting the seedlings
Seedlings are carried arefully by use of wheel barrow
Place the seedlings in planting holes at uniform depth
Firm the soil at the base of the plant
Mulsch is applied
Seedlings are watered

e)Flooding- excess water creates a unikform able environment for the pest hence controlling it
Use of lethal temp- Very hiugh or low temperatures interfes with pest life hence killing them
Use of scare crows - They resemble animals or Human beings and this scares off pests
suffocation - Here spacial the pests eg cypress beans
Proper drying of produce -it increases reistance of the produce to pest attack
Use of electro magnetic radiation

ELDORET EAST INTER SCHOOLS TEST
443/2
AGRICULTURE
PAPAER TWO
F4 MARKING SCHEME

1.Black autralop

2. to control cannibalim
to control egg eating

3.It is the removal of fish of marketable sizes from the pond to provide more space for those behind

4.should be constructed on a well drained area
topography shold be gentle sloping and of facilities grainage
shold be spaicous to allow room for exercises
should be provision of waste disposal
calf pen shold be near dairy disposal for giving milk to cows after milking

5.Bush cleaning
spraying their breeding places
By use of fly trps
By use of sterlising agents eg radio isotopes

6. overgrown hooves
Grazing on wet and muddy areas
Cracking of the hooves
Damp houses

7.It allows the food from the mouth to enter into reticulum

8.To facilitate mating
To discourage the blow fies
Prevent infection

9.a) Its the incresed ability and performance of the offspring above average of the two unrelated parents

b) Size of udder and teats
size of heifer
body weight
performance of dam/sire
Number of teats should be four well spaced and uniform in size
should be fast growing
Should be healthy

10.Sudden change such as change in feed
strangers in the flock
Predators such as mangoose
Handling of lbirds eg during avaccination
Sudden noise eg thunder
Disease and parasite infection
lack of food and water

11.Use of dehorning saw/wire
use of disbudding iron
use of caustic potash
Use of rubber ringand elastrator

12 Feed the qeen , drones and the brood
Protect hte hive from intruders
Collect nector, pollen and water
Biuld combs and seal cracks and crevis
Clean the hive
make honey and bees wax

13. Feed stuff is a food materiual containing one or more nutrients
Feed is a mixture of several feedstuffswhich supply the required nutrients to the animals

14.Have the ability to kill ticks
Be harmless to both human and livestock
be stable
Should remain effective after having been fouled with mud or dung

15.The technology is expensive
It requires trained personnel to handle
It requires special eqioment for fertilisation and storage

16.cold water
When disowned by their parents /poor mothering ability
poor feeding / Poor handling during paturition

17.Increase conception rate
Facilitate implantation of zygot
Increase lambing percentge

SECTION B (20mks)

18.a) i) Docking
ii) To facilitatte tapping and mating
To give a good fat distribution throught the body
To prevent blow fies infestation
iii) Two days old
iv)Elastrator and rubber ring
Burdizzo and knife
Hot iron

b)Hoof trimming
Foot rot
It causes injuries and breeding through cracking hooves

iii) Hoof cutter
hoof rasp
Hoof trimming knife

iv)Grab the sheep by wool flanks
Pick her up and sit her down on the ramps
Clip all the wool off the stomach down to he uddre and talke care not to cut udder or pennis in a ram .follow the steps .

19. a) too cold ii) too hot iii) correct temperature
iv) droufgt from one site

b) Produce a characterisatric cracking sound
walks with head slightly downand wings held spread out from hte body
Tends to sit on the eggs relatively long after laying
Becomes aggressive to other birds
plucks feathers from the brest region

c) carrying capacity- This is the ability of a given forage stand to mantain a particular number of livestock per unit area
Stocking rate- number of animalsd maintained per unit area of land

20. Bloat
a) Causes
i) Feeding animals on the feeds containing alot of pasture legume, cabbage leaves, lush grasses
ii) Abrupt change in feed given to animals ie very dry to succulent
iii) Blockage of oesophagus by large food particles eg potaoes
iv)Injury to nerve supply rumen causing pralysis of rumen

b) Symptoms
i) Distention of the left side of the abdomen due to gas accumulation
ii) Difficult in brreathing
iii) Profuse salivation
iv) Animal lie down and is unable
v) Granting and kicking of the belly
vi) Death within hours due to pressure on blood vessels

c) Control measures
i) Provide dry roughages just before feeding on green and dry pastures
ii)Feed livestock on wilted grass.

d) Treatment
i) Exercise the sick animal by walking by walking it around
ii)use mechanincal oil
iii) Epson salt can be used to empty the stomach
iv)A stomach course can be inserted into hte rumen through oesophagus
v) Use of trocar and canulla to relieve gases

e)cattle, goats , sheep

21. Diesel Engine
1. Uses of diesel Fuel
ii) has na injector pump
ii) Ignition is due to compresison
and high temperature
iv) Fuel consuption is relatively low
v) Has high high compresion ratio
vi) Produces alot of smoke as diesel is not completely burnt
7) They are relatively heavier
8)can operate even without a battery
9)Air - fuel mixture meet in the cylinder before ignition.

Petrol Engine
1.Use Petrol fuel
2.Has a carburator to control ratio of air intake
3.Has a spark ping that produce which ignites the air fuel mixture

4.Has a lower compresion ratio
5. Fuel compresion is high
6. Produces less smoke as petrol is fully burnt
7.They are raltively lighter
8. A battery is very essential to start
9. Air and fuel first meet in the carnureter ignition

22. Milking stool- The milk man/ personal milking sits on it
milking bucket- milk man milks the mlk into the bucket
Milk towel- Uses for drying the teats after washing
Milking Chun- Holds millk after milking
Milking jelly- Applied to the teats after milking to soften the teats and heal the wounds
Strip cup- for testing mastitis disease in the milk
Sieve - For filtering th emilk when when pouring in the milk churn
Rope - For restraining the animal during milking

23.i) Availability of the materials
- farmers tend to use local available material
cost of material- cheaper materials are purchased
suitability of material- materials should be suitable to environment
durability of materials- Farmers should consider long lasting materials
workability of materials- choose material which can sustain the weight of biulding material
Strength of material- choose material which can sustain the weight of the biulding

b)comparison between the use of plunge dip nad spray race
plunge dip
there is total immersion of animal ensuring all parts are wetted with arcaricides
Not appropriate for young stock sick or pregnant
Does not require alot of skill to run
Risks of animals swallowing acaricides
Its cheaper to maintain
It is not easy to maintain the right acaricide
strength due to evapouration
More expesnisve to construct

Spray race
Some parts of animals body may not be covered with acaricide
Appropriate for all animals including sick younger or pregnant
there is no risk of the animal swallowing acaricide
-Requres a lot of skill to operate
It has high maintainance costs to operate
It is easy to maintain the right acariside strenght
Less expensive to construct