

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
ADVANCED CERTIFICATE OF SECONDARY EDUCATION
EXAMINATION**

134/2

AGRICULTURE 2

(For Both School and Private Candidates)

Time : 3 Hours

ANSWERS

Year : 2001

Instructions

1. This paper consists of sections **three (3)** questions.
2. Answer **two (2)** questions.
3. Question one (1) carries **twenty (20)** marks and questions **two (2)** and **three (3)** carries **fifteen (15)** marks each.
4. Non-programable calculators may be used.
5. Cellular phones are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).

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1. You are provided with specimens: AL1, AL2, AL3, and AL4.

(a) (i) Identify specimen AL1 and its function in soil fertility

AL1 is CAN fertilizer (Calcium Ammonium Nitrate). Its main function is to supply nitrogen to crops, promoting vegetative growth and increasing yields.

(ii) Mention three negative effects of excess specimen AL2

AL2 is Urea fertilizer. Excess application can cause leaf burn, excessive vegetative growth at the expense of flowering, and soil acidification over time.

(iii) State two advantages of using specimen AL3 in crops

AL3 is DAP (Diammonium Phosphate). It supplies phosphorus and nitrogen, promotes root development, and improves crop establishment and early growth.

(b) (i) Identify specimen AL4

AL4 is farmyard manure.

(ii) State two uses of specimen AL4

Improves soil structure and moisture retention, and provides slow-release nutrients for crops.

(iii) Mention one danger of misusing AL4

Excessive use may lead to nutrient imbalance, water pollution, and poor crop growth if not properly incorporated.

2. You are provided with specimens: AM1, AM2, and AM3.

(a) (i) Identify specimen AM1 by its botanical name

AM1 is Maize (*Zea mays*).

(ii) State one pest that attacks AM1 and how it attacks

The maize weevil (*Sitophilus zeamais*) attacks stored maize grains by boring into them and feeding on the endosperm, reducing both quantity and quality.

(b) (i) Identify specimen AM2

AM2 is soybean meal.

(ii) State three nutritional properties of AM2

High protein content, essential amino acids for livestock growth, and energy contribution to feed rations.

(c) (i) Identify specimen AM3

AM3 is Maize weevil (*Sitophilus zeamais*).

(ii) Mention three crops attacked by AM3

Maize, sorghum, and millet are commonly attacked by maize weevils.

3. You are provided with specimens: AN1, AN2, AN3, and AN4.

(a) (i) Identify specimens AN1 and AN2

AN1 is Napier grass, and AN2 is Rhodes grass.

(ii) State three diseases caused by specimen AN3 in livestock

AN3 is Tsetse fly (*Glossina* spp.). It causes trypanosomiasis, characterized by anemia, weight loss, and reduced milk production.

(iii) Mention three methods of controlling AN3

Use tsetse traps, insecticide sprays on livestock and vegetation, and bush clearing to eliminate fly habitats.

(b) (i) Identify specimen AN4

AN4 is soybean meal.

(ii) State its effect on milk production in dairy animals

Soybean meal provides high-quality protein, improving milk yield, protein content, and overall dairy animal productivity.