

**AN ROINN OIDEACHAIS**  
(Department of Education.)

LEAVING CERTIFICATE EXAMINATION, 1946.

**AGRICULTURAL SCIENCE.—HONOURS.**

WEDNESDAY, 19th JUNE.—AFTERNOON 4 TO 6.

Not more than *six* questions to be answered. All questions are of equal value.

1. What raw materials are used in the manufacture of Superphosphate? Describe briefly the chemical changes which take place during the manufacturing process.

2. State the chief characteristics of plants of the following grasses and clovers:—perennial rye grass, Italian rye grass, cocksfoot, timothy, broad red clover, wild white clover.

3. Give the chemical formulae of (a) freshly burned lime, (b) slaked lime, and (c) limestone.

Enumerate the principal effects of lime on soils.

4. On what factors does the value of a feeding stuff depend? What are the chief characteristics of the following as feeding stuffs:—Oats, Pollard, Beet pulp, Meat and Bone Meal, Linseed cake?

5. What are the advantages of growing crops in rotation? Give two rotations which are commonly adopted in this country.

6. Give an account of *two* experiments carried out on the school farm, stating in each case (a) the object of the experiment, (b) method adopted in carrying out the experiment, (c) the results and (d) lessons to be learned.

7. Give a brief account of any experiment you have carried out to demonstrate the action of digestive enzymes.

8. State how you would demonstrate the presence of (a) protein, (b) sugar, in milk. What proportion of these substances would an average sample of milk contain?

9. Name the varieties of onions commonly grown in the garden and describe the method of cultivation, harvesting, and storage of the crop.

10. Give the life history of the Warble Fly. What measures are recommended to deal with the pest?