

2018



2018/2019



**BRUCE
COLLEGE**

AGRICULTURAL SCIENCE

Extra Subject: Agricultural Science |

PROFILE

Mr. James Dullea B.Sc. (Agricultural Science), H.Dip.

James is an honours graduate of UCD & UCC. He has worked in Clonakilty Agricultural College, Bandon Tuition Centre, Clonakilty Community & Purdue University, Indiana, U.S.A.

James is a confident enthusiastic and highly professional teacher whose work is of the highest order. James is also a successful part time farmer and brings a practical knowledge to this subject unmatched by his peers in Cork.

Our programme for the year includes Mock Exams, Free agricultural Science revision course both at Christmas & Easter.

Agricultural Science Project:

YOU MUST VISIT A FARM (OR FARMS) AND EXPERIENCE EACH OF THE FOLLOWING:

Crops

You must visit a farm that grows ***one*** of the following:

- Cereal (barley, wheat, oats, maize.)
- Sugarbeet
- Potato

THE HEADINGS YOU NEED TO INCLUDE IN YOUR PROJECT ARE:

- Varieties: What variety is sown, how does the farmer decide on a variety, where is the seed purchased?
- Rotation: How often is the crop sown in an area, is crop rotation employed, what are the advantages of crop rotation on the farm?
- Cultivation practices: How is the seedbed prepared before sowing the seeds? When is ploughing and harrowing carried out? How is the seed sowing? How far apart are the seed sown? Why is this spacing preferred?
- Establishment: How is crop growth encouraged? How much fertiliser is applied, how is it applied? Is soil testing carried out? How are weeds, pests and diseases controlled? What type of weeds, pests and diseases affect the crop?
- Harvesting: How does the farmer know the crop is ready for harvesting? When is the crop harvested? What machinery is used to harvest the crop? What happens the crop after harvesting?
- Yield: What yield is expected? What factors affect the yield?
- Any other relevant information.

Grasslands

THE HEADINGS YOU NEED TO INCLUDE IN YOUR PROJECT ARE:

- Varieties: What variety is sown, how does the farmer decide on a variety, where is the seed purchased?
- Rotation: Is crop rotation employed, what are the advantages of crop rotation on the farm? How often is grassland reseeded?
- Cultivation practices: How is the seedbed prepared for the grass seeds? When is ploughing and harrowing carried out? How is the seed sowing? How far apart are the seed sown? How is tillering encouraged? What are advantages of tillering?
- Establishment: How is grass growth encouraged? How much fertiliser is applied, how is it applied? Is soil testing carried out? How are weeds controlled? What are the most common weeds to grow in a grassland area?
- Grazing: What grazing systems are employed? How often are animals rotated?

- Silage and hay: How does the farmer know the grass is ready for harvesting? When is the grass harvested? How is silage produced and stored? How is hay produced and stored? Where is the silage stored? Where is the hay stored? What are the indications of good quality silage? What are the indications of good quality hay? What affects the quality of silage produced? What affects the quality of the hay produced? How and when is silage fed to the animals? How and when is hay fed to the animals?
- Any other relevant information.

Livestock

- Type of enterprise: Dairy, beef, sheep, pigs.
- Breeds : what breeds are on the farm? How many animals are on the farm? Why were these breeds chosen?
- Husbandry : Looking after the animals. (When are they put out to grass? When do the cows calve? What age do they first give birth? How are the mothers cared for before and after giving birth? How are the newborns cared for? What age do they reach slaughter weight? What are they fed? How often are animals culled? Why are they culled? How are the animals chosen to replace culled animals?
- Disease control: How often are animals vaccinated or dosed? What vaccinations or doses are they given? What are the most common diseases that occur on the farm?
- Housing : When are the animals housed? Why are they housed? What are they fed while being housed? How many animals are in each house? How are the houses ventilated? When & how are the houses cleaned out?
- Any other relevant information.

Farmyard Layout

(on A3 or A4 pages)

You must draw **two** farm plans (you just have to draw a plan of one of the farm's you've visited):

1. A sketch indicating the principal buildings, silage pit, slurry pit, etc.
2. Layout of the farm: including aspect, roadways, fencing, shelter, grazing methods (strip/paddock), etc.

Do not copy material from your notes or book. Get your information from the farmer. Take lots of photographs of what you see and experience on the farm.

