



## **Agricultural Science Past Exam Questions**

**Give a scientific explanation for...**

**Higher Level**

### 2013 – Question 9

Give scientific explanations for any **four** of the following:

- (a) The increasing popularity of Holstein-Jersey cross cows in dairying.
- (b) The predominance of kale over other forms of winter forage crops in recent years.
- (c) The micropropagation of new potato varieties.
- (d) The agitation of slurry before spreading.
- (e) Why pigs in some poorly-managed units have overfat carcasses.

(48 marks)

### 2012 – Question 9

Give scientific explanations for any **four** of the following:

- (a) The importance of pollination in plants.
- (b) A greater demand for energy by animals kept outdoors over the winter.
- (c) The occurrence of bare patches of ground in a recently sown cereal crop.
- (d) The benefits arising from shelter-belts on exposed farms.
- (e) The locating of boars in dry sow houses.

(48 marks)

### 2011 – Question 9

Give a scientific explanation for any **four** of the following:

- (a) The action of yeast in brewing and baking.
- (b) Progeny testing of A.I. bulls.
- (c) The use of systemic chemicals to control aphids.
- (d) Trace element deficiencies in crop production.
- (e) The fact that the creep area for bonhams is kept at a higher temperature than the rest of the farrowing house.

(48 marks)

### 2010 – Question 9

Give scientific explanations for any **four** of the following:

(a) The practice in abattoirs of fasting animals before slaughter and of allowing the carcasses to hang

for some days before sale.

(b) The increase in the number of fish kills in rivers and lakes in summer.

(c) The unsuitability of the Holstein breed for single suckling.

(d) The addition of soya bean meal to cereals in pig rations.

(e) The inclusion of both conifers and broadleaf trees in shelterbelts.

(48 marks)

### 2009 – Question 9

Give a scientific explanation for any **four** of the following:

(a) The growing of first early potato crops in specific regions of Ireland.

(b) A greater demand for energy by a farm animal when reared outdoors over the winter.

(c) The failure of cereal seeds to germinate after sowing.

(d) The formation of an iron pan in a soil profile.

(e) The use of plastic in the cultivation of maize.

(48 marks)

### 2008 – Question 9

Give a scientific explanation for **four** of the following:

(a) The improvement of a soil by the addition of lime.

(b) The appearance of yellow leaves in crop plants.

(c) The pruning of a field hedge.

(d) The greening of potatoes.

(e) The production of gases in a slurry tank.

(48 marks)

**2007 – Question 9**

Give a scientific explanation for **four** of the following:

- (a) High levels of leatherjackets in a crop following grass.
- (b) A change in the leaf area of plants growing near a hedgerow.
- (c) Feeding bought-in calves only water and glucose for the first 24 hours on arrival on a farm.
- (d) The variation in the dry matter content of potatoes.
- (e) The practice of housing a boar near sows and the double-serving of sows in a pig breeding enterprise.

(48 marks)

**2006 – Question 9**

Give a scientific explanation for **four** of the following:

- (a) Autumn ploughing as practised in the cultivations for crops.
- (b) Conservation of hedgerows.
- (c) The culling of breeding stock.
- (d) The function of a gizzard in poultry.
- (e) Movement of water from the soil through the plant to the atmosphere.

(48 marks)