



Leaving Cert Agricultural Science

Free Notes

Tillage - Barley

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- Cereals are members of the **monocot family** and Order Gramineae.
- In their natural form (whole grain) they are a rich source of carbohydrate, vitamins, minerals, fats oils and protein.

Cereal identification:



A = Barley, B = Wheat & C = Oats

Introduction to Barley:

- ⊙ Barley is most important order as far as agriculture is concerned.
- ⊙ Barley as a crop in Ireland has increased its importance in the last 30 years.
- ⊙ The amount of Barley grown fluctuated for many years but at present the amount of land under barley is increasing.
- ⊙ This is due in part to the declining importance of oats as a feed for the working horse.
- ⊙ Barley is the fourth most commonly grown cereal in the world. It is used as **feeding barley and for malting.**
- ⊙ The quality of **malting barley must be higher than that of feeding barley so more care, skill and experience is required when growing it.**
- ⊙ Malting barley is usually grown on contract to the large **breweries and distilleries.**

Note: Physical/geographical location of a crop relies on: Sunshine, rainfall, topography & proximity to markets

Soils and Climate:

- ⊙ The crop we are most concerned with is Barley (*Hordium*).
- ⊙ The best soils for **malting barley are medium loams.**
- ⊙ The best soils needed to grow this crop is either Grey Brown Podzolics or Brown Earths; deep **sandy loam soils that have good drainage with a pH of 6.5.**
- ⊙ Grown in **Wexford and Louth (on brown Earths)** and the **midlands (on Grey Brown Podzolics)** . Lime may need to be added if the soil is too acidic.

- ⦿ Barley **does however give higher yields when grown in rotation.**
- ⦿ When growing after a **ley, pests can be a problem**, and best results come in the second year of growing.
- ⦿ After a **root crop the soil can become quite compacted** and more **cultivation** may be **required**. Barley requires a **steady supply of moisture** during growing season.
- ⦿ Drought in mid-season reduces Yield & Quality and Dry soil conditions during ripening & at harvesting is important. Because of this its growth is restricted. Most of its production is confined to the **eastern side of the country.**

Types of barley:

- ⦿ There are two types that are grown in Ireland, **feeding barley and malting barley.**
- ⦿ The **average yield at the moment in Ireland per hectare is about 6 tonnes.**
- ⦿ Feeding Barley and Malting Barley differ in the type of soil that they require but both need a steady supply of moisture over the season.

Feeding Barley

- ⦿ Feeding barley is suitable for all livestock. About a third of the crop is usually retained by the farmer and the rest is sold to be made into animal rations.
- ⦿ Barley straw can be fed but has a low feeding value.
- ⦿ **Feeding Barley will grow on a wide range of soils as long as it has good drainage and a PH greater than 6.0.**
- ⦿ Grown for on farm feeding or for Compounders: O'Connor, Roches, Liffey Mills.

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