

## IRELAND

### PEDO-CLIMATIC CONDITIONS:

Mild temperate oceanic climate.

### CROP: Faba beans

Faba beans are highly suitable to Irish growing conditions, given that they achieved the highest yield in Ireland out of all the countries involved in the study. When using regenerative practices, faba beans tend to reach yields of between 4 and 5 tons per hectare, while they can reach up to 9 tons hectare with conventional production.

Given these promising results, growing faba beans in Ireland looks like a promising option, especially since they adapt well to various climates and demand for high-protein crops is continuing to grow.

The selection of varieties is mostly predicated on well-known, highly productive cultivars that are adaptable to a wide range of conditions.

In field trials over the past three years, the highest yield was achieved with the Fanfare variety, followed by all other varieties. While all cultivars demonstrated adaptability, attacks of rust and chocolate disease prior to maturity presented challenges. This susceptibility to rust, chocolate disease, trips, and black and green aphids is a risk for organic production, as there is no means of control other than using more robust varieties. Stronger bird attacks have been recorded after sowing, particularly when the seed was sown later in the spring. Wine-weevil attacks have also been recorded, irrespective of the sowing period.

Faba beans typically grow to a height of around 1,5 metres. The seeds are contained in pods, which open when the seeds reach maturity. The colour of the seeds ranges from dark yellow to brown.

| Faba bean | Avg germination | Avg plant density | Avg yield (kg/ha) |
|-----------|-----------------|-------------------|-------------------|
| ALEXIA    | 73%             | 36                | 3791.2            |
| EMILIA    | 65%             | 32                | 3100.5            |
| TIFFANY   | 70%             | 35                | 3691.5            |
| FUEGO     | 66%             | 33                | 4500.3            |
| FANFARE   | 83%             | 42                | 4866.6            |
| LYNX      | 65%             | 32                | 3408.3            |
| TAIFUN    | 54%             | 27                | 3016.6            |

## BEST AGRICULTURAL PRACTICES:

### ● Organic regenerative practices applied:

- Application of organic fertilisers.
- Foliar spraying with organic products for pest and disease control.
- Three mechanical weedings during the growing season.
- The remaining biomass was incorporated back into the soil in the form of green manure, which improves soil health.



*Picture 1: Faba beans pods and plants*

### ● Best practices for sowing :

- Soil preparation should involve shallow ploughing of up to 30 cm and the application of 100-150 kg/ha of organic fertiliser, with a nitrogen-phosphorus-potassium ratio of 6:7:8.
- Sowing should be shallow, at a depth of 4 cm, with row spacing of 50 cm, and a density of 50 plants per square metre.
- The most suitable time for sowing faba beans is from February to March (although they can even be sown in October), using a mechanical or pneumatic seeder.



*Picture 2: Faba beans pods and plants*

### ● Best practices for managing the crops chosen:

- Soil analysis.
- Proper fertilisation, based on soil and plant needs.
- Proper sowing.
- Preventive protection against bird attacks.
- Implementing control of pests and diseases
- A minimum of three mechanical weedings.
- On-time harvesting, before heavy rains.

### ● Best practices for harvesting the crops chosen:

- In September, with a mechanical harvester.