

# INDURAIN – outstanding performance for successful winter bean growing

*Winter field bean*

**BREEDER/DISTRIBUTOR**

NPZ / Saaten-Union

## **VARIETY DESCRIPTION**

Winter beans in general have some advantages in comparison with spring field beans. Therefore, the new variety INDURAIN will be well-suitable.

INDURAIN has a pale hilum colour, high protein content and a high yield level. Combined with a strong frost tolerance and high protein contents, INDURAIN will be the perfect winter bean variety for innovative farmers.

### **Agronomic characters**

Yield potential:	high
Protein content:	high
Protein yield:	high
Grain weight:	medium
Begin of flowering:	early - medium
Maturity:	medium
Lodging resistance:	high
Plant length:	medium
Resistances	
Ascochyta:	medium
Botrytis:	medium
Rust:	medium

### **Crop husbandry**

**Sowing time:** Depending on the regions, winter beans should be sown from the end of September to the beginning of November.

**Sowing depth and density:** on medium soil types: 8-10 cm; on heavy soils: 6-8 cm sowing depth. In favourable planting conditions 20-25 viable seeds/m<sup>2</sup> - normal planting conditions 25-30 viable seeds/m<sup>2</sup>.

**Row spacing:** from 20 to 45 cm for favourable yield; in order to get the proper sowing depth wider rows are recommended; precision drills are favourable but cereal sowing technique are also possible.

**Fertilisation:** Nitrogen application is not necessary. For medium supplied soils and a medium yield level: 40-60 kg P<sub>2</sub>O<sub>5</sub>/ha; 100-130 kg K<sub>2</sub>O/ha, 20-50 kg MgO/ha are recommended.

**Weed Control:** *Should be applied according to national-registered plant protection devices and local recommendations.* Herbicide treatment only possible in pre-emergence. Field beans provide good conditions for mechanical weed control.

**Diseases and Insect Protection:** It is recommended to pay attention to *Sitona* weevil (post-emergence period), black bean aphid (from beginning of flowering onwards), *Bruchus* field bean beetle (begin of flowering onwards). Pesticide strategies have to be fine-tuned with local advisory institutions. In case of occurrence of chocolate leaf spot disease it is easy to control with fungicidal spray.

#### **Information level 2021**

*All variety descriptions have been prepared in accordance to the best of our knowledge, considering trial results and observations. A guarantee or a liability in individual cases is not possible, because the growth conditions are subject to substantial fluctuations.*