



# Farmer, Demand star-sorghum.

[www.sorghum-id.com](http://www.sorghum-id.com)

## Star-sorghum

A star, because it is **productive, profitable and sustainable.**

A big thank you to the European seed breeders who, for thirty years, have provided sorghum with steadily increasing yields. Why? Because, beyond its agronomic assets, its interest in crop rotations, and its environmental qualities, the productivity of sorghum is a key criterion for farmers.

European genetics have every reason to be proud.

**+1%/ yr\*** since 1990. Or the increase in yield generated by early- and semi-early hybrid genetics produced in Europe.

**+ Stability.\*** A further advantage of hybrid genetics lies in its ability to stabilise yield, a quality much-appreciated by farmers, in that it secures the profitability of crops.

*\*France is one example, source: Arvalis 2015*



European sorghum offers to farmers an alternative crop that is useful and easy to grow. It does not require specific investments; it is adapted to all types of soils and is not very costly to grow thanks to its low

input needs. Moreover, the uses of sorghum are very diverse and an increasing number of processors (agro-food, animal feed, industry...) are interested in this crop.

### EUROPEAN VARIETIES MEETING ALL NEEDS

The European (EU and non-EU) catalogue offers a broad and diversified selection, in grain and silage, for all existing outlets: more than 300 varieties are registered.

TYPE		USES
<b>Sorghum grain</b>		- Animal feed: poultry, pigs, ruminants... - Human food : semolina, flour (adapted for people with gluten-free diets), brewery, distillery. - Biofuels (ethanol)
<b>Mono-cut sorghum silage</b>	Silage and double use	- Animal feed: silage. - Industrial uses: methanisation, biofuels, bio-materials...
	Mainly industrial use	- Methanisation, biofuels, bio-materials...
<b>Multi-cut sorghum silage</b>		- Animal feed: mowing, pasture, silage, wrapping, green crop silage. - Vegetal cover

## Star-sorghum

A star, because of its **top-quality seeds.**

European seed production has to meet extremely rigorous standards.

Minimum germination capacity:  
80% pure seeds  
(90% average in European Union)

Maximum humidity: 14% of weight

Minimum specific purity: 98% of weight  
(99% average in European Union)

Maximum content in number of seeds from other species: 0

These very rigorous minimum standards also apply to base and pre-base seeds.

## Star-sorghum

A star because it offers **many uses.**



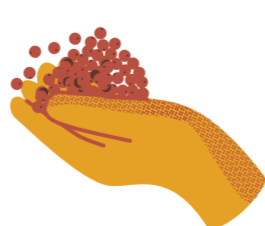
#### Human food.

Star-sorghum is on its way to conquer European plates and glasses. Semolina, flour (adapted for people with gluten-free diets), brewery, distillery...



#### Industry.

Star-sorghum is also destined for industrial uses: biofuels, methanisation, bio-materials...



#### Animal feed.

Star-sorghum is an appetising cereal for animals : silage for suckler or dairy herds, tannin-free primary material for monogastrics...

### SORGHUM YIELDS INCREASING YEAR AFTER YEAR.



## Star-sorghum

A star, because it comes from a rigorous selection.

### THE 8 PILLARS OF EUROPEAN SELECTION.

- 1 Yield and stability
- 2 Early growth, as well as tolerance of low temperature during emergence and flowering
- 3 Drought tolerance
- 4 Lodging resistance, as well as its "stay green" character
- 5 Disease resistance
- 6 Predator resistance
- 7 Grain quality: very low tannin content, grain colour and texture, starch content, grain health quality, etc.
- 8 Forage quality: digestibility and food value, BmR character, sugar content, etc.

## Star-sorghum

### Instruction manual

#### RULES TO FOLLOW FOR SUCCESSFUL STAR-SORGHUM

#### 1. Choosing the right variety

Solutions for selecting the best variety.

1. Precocity
2. Productivity
3. Tolerance to apical sterility
4. Drought tolerance
5. Tolerance to diseases
6. Resistance to lodging
7. Release of the panicle
8. Tannin content

#### 2. Sowing

Solutions to start the culture.

1. Sowing temperature
2. Date of sowing
3. Density of sowing
4. Group of precocity of the variety

#### 3. Weeding

Solutions to build a weeding programme.

1. After the early emergence at the 3-leaf stage
2. After the emergence at the 4-leaf stage
3. Mechanical weeding

#### 4. Crop protection

Solutions to protect the crop from diseases and pests.

1. Varietal choice (Fusarium tolerance)
2. Density of sowing and irrigation management (against diseases in vegetation)
3. Seed treatment (against damping-off and certain underground insects)

#### 5. Harvesting

Solutions to harvest at the right time.

##### GRAIN

1. Harvest early (humidity ≤ 20%)
2. Do not delay the harvest date (risk of lodging)
3. Do not pick up too many stems and leaves

##### SILAGE

1. Calculate according to the rate of DM (varieties with grains)
2. Take the state of the leaves as an indicator (varieties without grains)
3. Give priority to biomass (varieties without inflorescence)