



Best practices to maintain high yields and grain quality of soybean

A checklist prepared by the N2Africa Project for farmers in west Kenya

Plan ahead and prepare the land well ...

- ☑ Rotate soybean with maize or sorghum for soil fertility benefits and disease control.
- ☑ Select fertile to moderately fertile land, with no water logging.
- ☑ Prepare land well to create a uniform seedbed with no weeds.
- ☑ Obtain SYMPAL (0-23-16+) or another proven fertilizer for your soybean. Do not apply nitrogen to the soil as soybean nodules will fix nitrogen from the air.
- ☑ Obtain BIOFIX inoculant and store it in a cool, dark and dry place.
- ☑ Obtain quality seeds of the soybean variety recommended to your area and acceptable to target markets.
- ☑ Test the seeds for germination and plant only when germination is above 80%.

Plant on time and at the proper spacing and depth ...

- ☑ Plant on time, when the soil is moist at onset of first rains; roots will not grow into dry soil and will not survive in water logged soils.
- ☑ Inoculate soybean with BIOFIX inoculant using the right procedure for maximum N₂-fixation.
- ☑ Plant three cm deep right after inoculation at a row spacing of 45 cm with 5 cm between seeds. This spacing requires between 20 to 25 kg of seed per acre depending on seed size.
- ☑ Apply SYMPAL fertilizer at 50 kg per acre and ensure clusters of fertilizer do not touch seeds.

Closely manage and monitor crop development ...

- ☑ Inspect the field regularly for presence of weeds, pests and diseases.
- ☑ Keep the field clean of weeds by weeding well and on time.
- ☑ Use recommended fungicides and insecticides according to instructions.
- ☑ Spray recommended fungicide at recommended rates, first at flowering and spray once again as recommended, usually 21 days after the first spraying.
- ☑ If insect is observed it is not recommended to spray damaged leaves, but if pods are being damaged, particularly by flower thrips, seek advice on treating with insecticide.
- ☑ Maintain application records (date, target pest, pesticide name, and area treated).

Harvest on time and clean the grain to industry standards ...

- ☑ Harvest early when 90-100% of pods are brown and dry, but before they are brittle and shatter.
- ☑ Dry harvested crop in the open sun but protect it from the rain.
- ☑ Thresh and separate soybean seeds on a clean surface such as a tarpaulin.
- ☑ Clean the grain and re-dry to a moisture content of 11-12%. Soybeans with greater than 13% moisture are likely to mold, and grain below 11% is subject to cracking.
- ☑ Ensure that soybean grain does not contain live insects, has no objectionable odors and contains no foreign materials, particularly small stones.

Protect grain quality and market your soybeans ...

- ☑ Put clean, dry grains in clean bags, do not use recycled fertilizer, pesticide or other chemical bags. N2Africa marketing project grain bags, however, may be reused up to five times.
- ☑ Store grain soybean in a cool, dry and ventilated place.
- ☑ Deliver grain to your nearest project collection point on time. Every farmer is held responsible for meeting buyer's grain quality standards.
- ☑ Report information on soybean variety and payment method to collection point manager.
- ☑ Allow seven days for payment of soybeans after their acceptance at collection point.