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.
Mbinu bora za kuongeza uzalishaji wa Soya, mahindi na Mtama

Kujitayarisha kwa kupanda…
- Badilisha soya na mahindi au mtama ili kuimarisha rotuba ya udongo na kuzuia magojwa.
- Panda soya kwenye shamba lenye rotuba, lisilokuwa na vidimbwi au chemi chemi za maji.
- Tayarisha shamba vyema kwa kuhakikisha kwamba hakuna kwekwe.
- Tafuta mbolea aina ya SYMPAL (0-23-16+), ama mbolea inayofaa kwa upanzi wa soya yako.
- Tafuta bacteria asilia (Biofix). Iweke mbali na juu na unyevu.
- Tafuta aina ya soya iliyopendekezwa kupandwa katika eneo lako.
- Jaribu mbegu ya soya kama inamea kabla ya kupanda ili kuthibitisha kwamba asilimia zaidi ya 80 inamea.

Wakati wa kupanda…
- Panda kwa wakati ufaao, hakikisha mchanga una unyevu wa kutosha hasa sana wakati wa mvua za mwanzo. Miziizi ya soya haiwezi kustahimili mchanga mkavu ama machanga wenye chemichi.
- Changua soya na bacteria asilia (Biofix) huku ukipatikana maagizo.
- Panda mara moja baada ya kuchanganya bible ya asilia kwa nafasi ya sentimita 45 kwa pango hadi jingine na sentimita 5 mmea hadi mmea mwingine.
- Panda soya ukitumia mbolea ya SYMPAL kwa kiwango cha kilo 50 kwa ekari moja. Hakikisha ya kwamba mbolea na mbegu haziguzani.

Wakati mmea ungali shambani…
- Kagwa shamba kila mara.Hakikisha kwamba huku ukufikia ujuzi wa mgonjwa.
- Hakikisha ya kwamba halu kwa kuchanganya bible ya asilia 21 baada ya kununyiza mcheke.
- Ikiwa wadudu wataonekana kwenye mmea, haipendekezwa kununyiza majani yaliyo athiriwa. Lakini ikiwa mizoga imeliwa au maua, tafuta ushauri kabla ya kununyiza.
- Weka rekodi za kilimo zikionyesha siku ya kununyiza, jina la mdudu, jina la dawa uliotumia na pahali ulipONYunyiza.

Wakati wa kuvuna…
- Vuna mapema wakati asilimia 90 hadi asilimia 100 ya mizoga imekauka na kubadilika kuwa rangi ya hudhurungi lakini kabla haisababu halafaniki kupasuka.
- Kausha mmea uliopyo kwenye jua. Zui isinyeshewe na mvua.
- Gonga soya na kuondo uchafu ukiwa umeziweka mahali safi kama mkeka.
- Ondoa uchafu kwa mbegu ya soya na ukawesha hadi mbegu zilizwa na unyevu wa asilimia 11-12 kwa sababu soya zilizwa na unyevu za asilimia 13% huenda zikaoza. Ukikausha zaidi ya asilimia 11 mbegu zitapasuka.
- Hakikisha kwamba naofa soya haiwezi kwa mcheke wako wa mcheke wako na hadhi au harufu isiyo ya kawaida.

Kuhifadhi…
- Weka soya iliyokauka kwenye gunia safi, usitumie gunia ya mbolea ama ya dawa ya wadudu au iliyotumika kuweka kemikali zingine. Gunia ya mreads inawezesha tumilia asilimia 13% huenda zikaoza.
- Tunza/ hifadhi Soya mahali palipo kauka na penye hewa safi.
- Peleka naofaka katika kituo cha ununuzi kwa mcheke unaofaa.
- Hakikisha maelezo yote naofaka nyuma ni sawa, hasa tarehe, aina ya soya, mahali au sehemu na mkulima.
- Ruhusu siku saba ili upate malipo yako baada ya soya kwa kukubalika kwenye kituo cha ununuzi.