

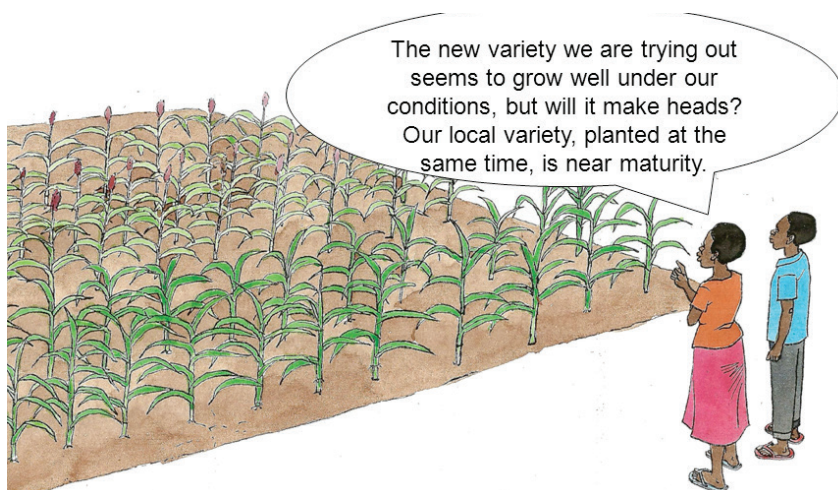
GROWING SORGHUM THE ORGANIC WAY



Sorghum does well in dry climates, where maize generally does not grow well. Growing sorghum in rotation with legumes and adding compost or manure to the soil will essentially improve its yields.

According to the International Federation of Organic Agriculture Movements (IFOAM, 2008) organic agriculture is «a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.»

Start with the right variety and healthy seeds



Factors to consider in variety selection

- > Use for grain or fodder, or dual purpose use
- > Tolerance to pests and diseases
- > Early and uniform maturity
- > Good grain quality

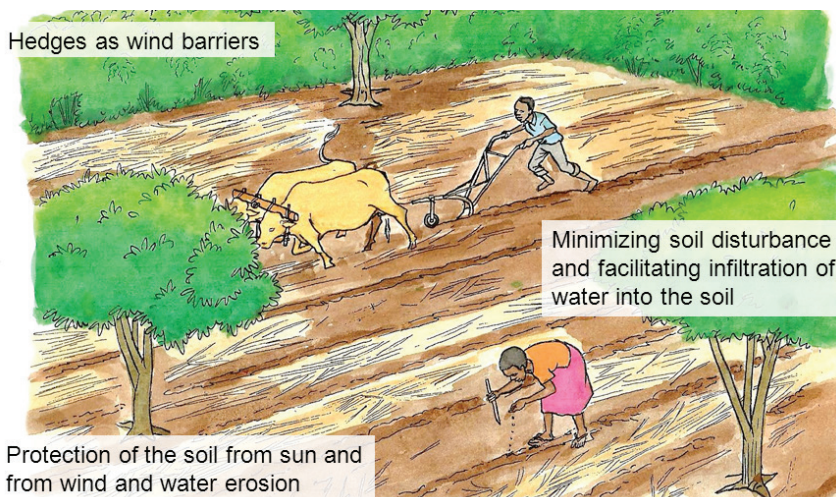
Landraces ...

- > are well-adapted and hardy
- > generally have high grain quality

Improved cultivars ...

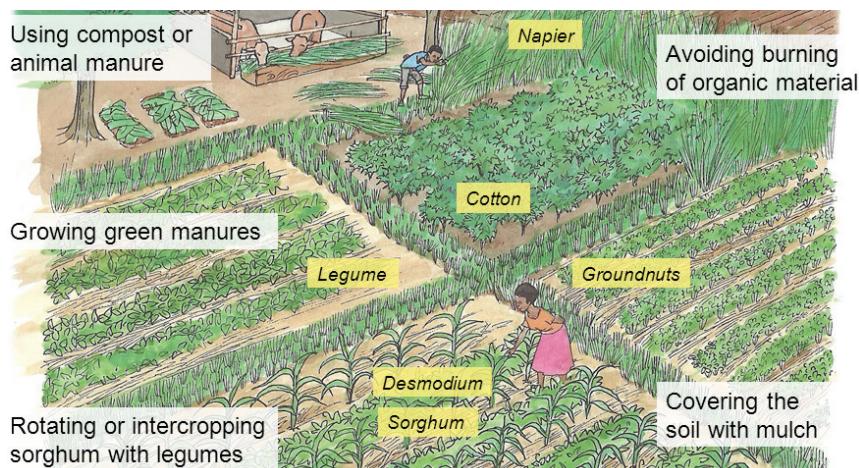
- > produce higher grain yields under good management
- > may have a higher nutritional value and processing quality
- > tolerate pests and diseases

Conserve soil and soil moisture



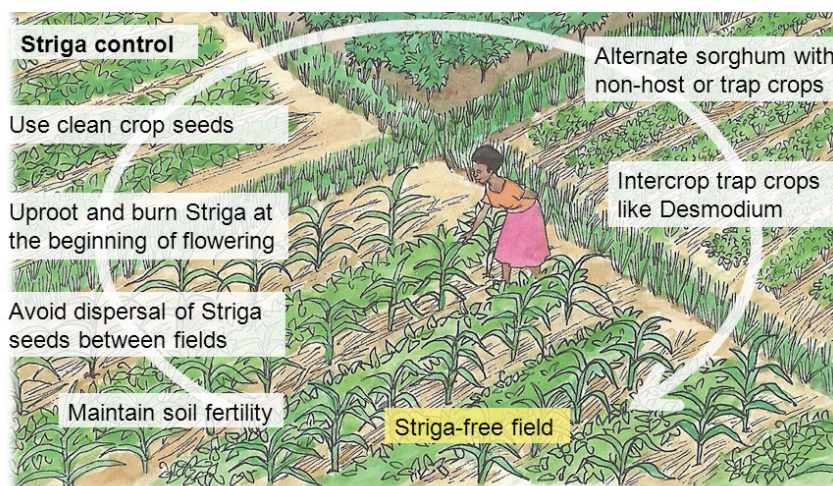
- > Keep the soil covered with crop residues or other dry mulch
- > Avoid burning fallow land
- > Grow suitable intercrops (such as cowpeas, melons, pumpkins) or cover crops.
- > Stabilize soil by for example planting vetiver grass
- > Rip the soil to break hard soil pans
- > Increase soil organic matter content by applying compost or well-rotten manure
- > For irrigated sorghum apply water mainly at the crop's peak demand (flowering)

Care for the soil: Use nutrient sources which fertilize and add organic matter to the soil



- > Apply well-rotten compost or farmyard manures and animal manures at 2 to 4 wheelbarrows or more per 10 m x 10 m
- > Grow legume green manures and incorporate them into the soil or feed them to livestock and use the manure for crops
- > Rotate sorghum with food legumes like groundnuts, bambara nut or cowpea
- > Practice suitable agroforestry techniques (e.g. with *Faidherbia albida*)
- > Apply rock phosphate and other allowed fertilizers

Manage weeds effectively



General weed management

- > Sow weed free sorghum seed
- > Use well-rotten compost, which is low in weed seeds
- > Weed the field before sowing in case of high weed pressures
- > Plant at optimal spacing for good weed suppression
- > Ensure timely weeding: first weeding within 3 weeks, second weeding within the following 3 weeks, more weedings as necessary
- > Cover the soil with mulch or grow intercrops and cover crops to suppress weeds

Effectively control pests and diseases

Stemborer control using the Push-Pull method:
Napier grass attracts stemborers, while non-host intercrops repel them



General field measures

- > Grow resistant varieties
- > Sow disease free seed
- > Practice good field sanitation
- > Rotate sorghum with crops like cotton, groundnuts, sunflower, Bambara nuts or cowpeas to break the cycles of some pests and diseases
- > Intercrop sorghum with food legumes, pumpkins or melons, which do not host sorghum pests and diseases
- > Use permitted insecticides in high pest pressures