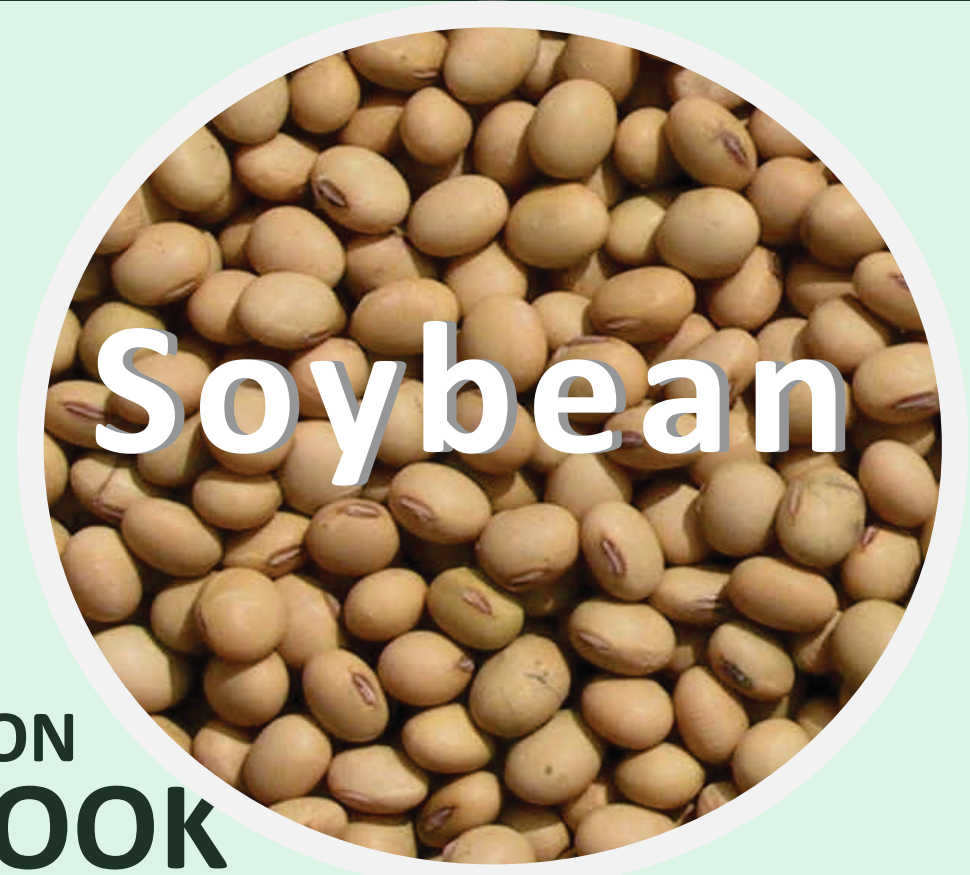




DOING
BUSINESS
WITH



Soybean

A PRODUCTION
HANDBOOK
FOR FARMERS



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DISCLAIMER

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To do good Business in Soybean farming, remember to:

1. Start with who to sell to
2. Know the costs and availability of key inputs
3. Maintain Good Buyer-Seller Relationships
4. Prepare your land well for planting
5. Use High Yielding and Quality Seed
6. Buy Recommended Types of Inoculants
7. Buy Recommended Types of Fertilizers
8. Ensure Proper Use of Inoculants
9. Apply Chemical Fertilizers well
10. Plant Soybean Well
11. Control Weed
12. Control Pests if any
13. Harvest Matured Soybean on time
14. Ensure Proper Post Harvest Handling of Soybean
15. Do Proper Treatment and Bagging
16. Avoid Damage/Losses in Storage
17. Summary

Avoid Damage/Losses in Storage



Improve ventilation by leaving spaces around bags of soybeans. Bags should not be too close to the ceiling, walls and floor.

Inspect store regularly for signs of infestation of storage pest and rodents. Cover all window openings with a mesh and close them tightly. Keep surroundings of warehouse clean.



Start with Who to Sell to



Know the requirements of your buyer for a successful farming business.

For an assured sale, grow soybean only when you know the price, quantities and qualities your buyer wants.

Know The Costs



Know the main expense items for soybean production

Cost of plowing, improved seed, inoculant, fertilizer, weeding/weedicide and application cost, threshing, cleaning, bagging, storage and transportation are some of the major cost items in commercial soybean production that you must know before you begin farming.

Do Proper Treatment and Bagging



Further dry grain to about 13% moisture content before storage after threshing and cleaning.

Once grain is properly dried, no need to treat soybean before storage. Put grains into poly/jute sacks for storage in traditional structures like barns, pots and plastic containers. Store in a cool dry place, preferably on wooden pallets.



Ensure Proper Post Harvest Handling of Soybean



Dry, thresh and clean soybean before storage.



Dry grain to moisture levels of 13%. Thresh dried soybean with a machine if available or manually on a tarpaulin. Winnow threshed soybean manually if machine cleaning is not possible.



Maintain Good Buyer-Seller Relationships



Keep your buyer informed of your plans, stage of growth, condition of your crop and dates for key operations such as harvesting and probable sales.

Enter into an agreement with your buyer. Communicate regularly with buyer.



Prepare Your Land Well



Decide the type of land preparation to use.

Option 1: Ensure that only trained and qualified tractor operators do the ploughing and harrowing of your land.

Option 2: Zero tillage with correct and safe spraying of land with herbicides.

A well prepared land makes planting and other management practices easy. Do not slash and burn instead mix them into the soil. Incorporate the stubble into the soil: they make the soil richer in nutrients. Break soil lumps properly to get a fine seedbed.

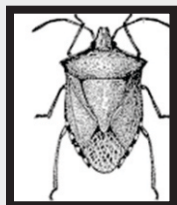
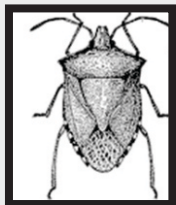
Harvest Matured Soybean on Time



Harvest when soybean leaves and pods turn yellow to light brown to avoid losses.

Different soybean varieties have different maturity periods. Varieties with up to 100 days growth duration are classified as early, 101 to 115 days medium, and more than 115 days late maturing. Monitor fields regularly.

Control Pests if any



Control pests with recommended weedicide



Leaf eating caterpillars and pod sucking bugs may cause serious yield losses in some areas. Spray with the recommended pesticides to control these pests. Follow EPA guidelines on spraying and use reputable spraying services to spray your fields.

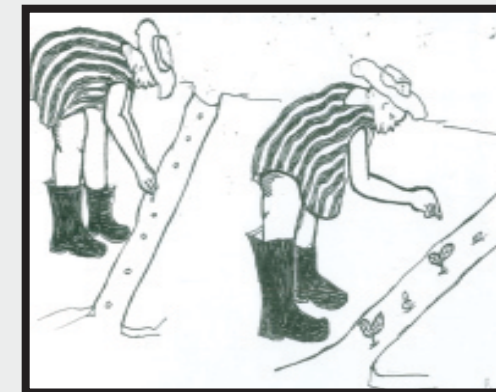


Use High Yielding and Quality Seed



Purchase seed from certified outlets or seed growers where seed quality is assured. Look out for label with date of packing, germination percentage and other details

Always conduct a germination test (preferably 10 days prior to planting) to help you decide on quality and seeding rate. Obtain fresh seed if germination is below 50%.



Buy Recommended Types of Inoculants



Always store inoculant in clay containers in your house or in a fridge in an inputs store.

Two hours before sowing, treat 20 kg – 25 kg of seed **with 100g of Soybean Rhizobium** inoculant for planting one acre of land. Sprinkle the inoculant on to the seed and mix well. The seed turns black when properly covered.

Control Weeds

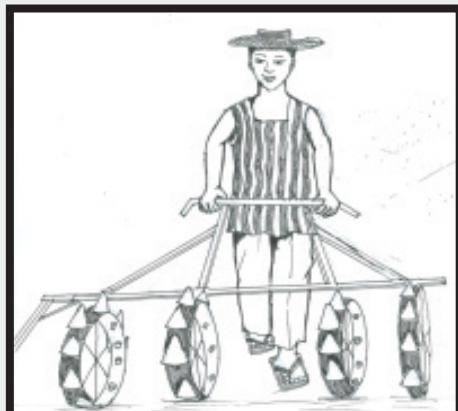


Control weeds early, especially during the first 6 weeks after planting.



Weeds can cause considerable yield losses because they compete with soybean for nutrients, water and sunlight and may harbour pests and diseases.

Plant Your Soybean Well



Plant your soybean in rows with proper seed spacing.

Use the appropriate technology to plant using a mechanized dibbler or ropes. Plant at the recommended spacing. In general, 5 cm between plants and 60 cm between rows for most soybean varieties is good enough.

Buy Recommended Types of Fertilizers



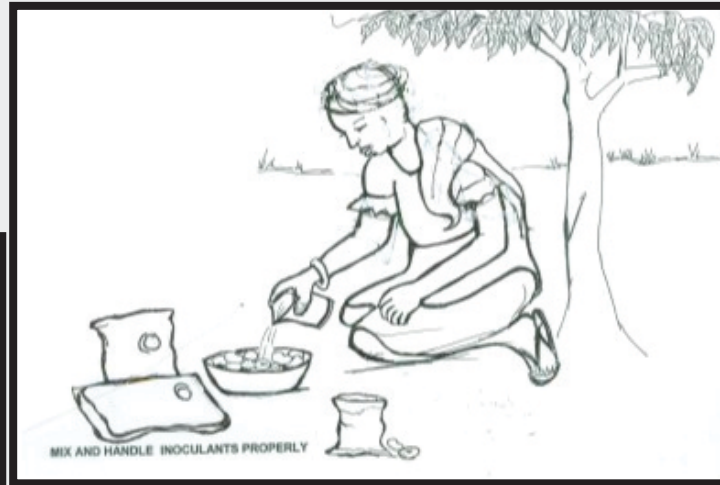
Use recommended types of fertilizers for your soybean at least one week before planting. Phosphorous based fertilizers: TSP and SSP are preferable.

Apart from inoculation, fertilize soybean with phosphorous based chemical fertilizer like TSP, SSP and Yara legume. Adding organic manure like cow dung, chicken manure and composts helps to enrich the soil and also stabilizes the soil 's physical structure. Use 8 tractor trailer loads of organic matter per one acre.

Ensure Proper Use of Inoculant



Use shade in the field when mixing inoculant and seed.



Just prior to sowing, put seed in a bowl and moisten a little so inoculant will stick to it. Seed will turn black when properly covered. Air dry the inoculated seed under shade for about 30 minutes. This will ensure that inoculant get stuck to seed. Do not leave inoculated seed in the sun.

Apply Your Chemical Fertilizers Well



Cover all applied fertilizers with soil immediately after application

Depending on the type, fertilizers may be applied before planting or at planting time.