

## A. Sexual Propagation

### I. Seedbed/seed box and soil media preparation

1. Prepare seedbed or improvise seed box using bamboo slots or wood. Provide drainage to drain the excess water
2. Mix soil media at 1:1:1 ratio of garden soil, sand and vermicast.
3. Sterilize soil media under heat at 70°C for 30 minutes in an improvised half size tin drum (200 liters capacity).



### II. Seeds or nut selection, preparation and sowing

1. Cashew seeds for planting should be obtained from trees of promising performance. It should be fully matured and good quality to ensure good germination and vigorous seedlings.
2. Cashew seeds lost its viability easily. Seeds must be dried and sown as soon as possible to ensure good viability.
3. Soak seeds overnight and sow 5-10 cm deep with stalk end facing upward in a slanting position.
4. For small numbers of cashew seeds to be planted, it is advantageous to be directly sown during transplanting that will affect the seedlings germination and growth.



## III. Management of seedlings in the seedbed/seed box

1. Provide enough water regularly.
2. Foliar spraying of organic is recommended to control fungal infection specifically anthracnose at seedling stage.
3. Apply organic insecticide available (be it farm made or purchased with 3rd party certification) to control the infestation of aphids and other insect pests attacking newly emerged cashew seedlings.
4. Follow recommended rate of the organic pesticides use.

### IV. Preparation of soil media for potting and transplanting of seedlings

1. Prior to transplanting of cashew seedlings from the seedbed/seed box recommended, soil media should be prepared.
2. Sterilize as stated in the soil media preparation for seedbed/seed box.



3. At 2-3 months from sowing (having 2-3 matured leaves) the cashew seedlings in the seedbed/seed box should be transplanted in black polyethylene bags (3x3x8 inches).
4. During transplanting, seedlings should be removed from the seedbed slowly not to damage the roots.
5. Leaves should be cut in halves to prevent rapid drying of plants during transplanting.

## V. Care and maintenance of transplanted seedlings

1. Newly transplanted seedlings should be placed under shady environment to prevent drying and ensure high percentage of survival especially during summer or dry weather condition.
2. Transplanted seedlings should be cared and maintained in the screen house for at least 6 months or pencil size as rootstocks for asexual propagation.



3. Regular watering should be provided.
4. Spraying of organic pesticides (farm made or purchased with 3rd party certification) should be necessary for the control of attacking insect pests and diseases.
5. Removal of weeds from the seedling bags is necessary.
6. Application of organic foliar fertilizer and vermicast is advisable to enhance seedling growth.

## B. Asexual Propagation

### I. Selection and collection of cashew scion

1. Cashew scion should be collected from an organically grown mother trees that are free from insect pests and diseases.





2. The scion should have a diameter approximately between 8-12 mm (pencil size) or with the same size as to the graftable rootstock or when it is about 5-6 months old from flushing with prominent bud.



3. After collection, scions should be grafted immediately to rootstocks to prevent from drying and ensure higher survival rate.

4. For long distance source, wrap collected scion with moist newspaper to prevent drying.



## II. Maintenance of grafted cashew seedlings

1. Application of organic fertilizer should be twice a year (onset and offset of the rainy season) and foliar fertilizer based on recommended rate available in the area.

2. Regular watering should be provided especially during dry season and the amount of water needed to irrigate the soil in the bag depends on the climate. Saturate the soil media but not flooded.

3. Spraying of organic fungicide and insecticide should be applied based on the recommended dosage and frequency of application for the control of insect pests and diseases.

4. Weeds should be controlled by hand weeding.

5. Plant raiser should be used on plants in the nursery for the prevention of *Phytophthora* disease infection.

6. Grafted seedlings should be cared and maintained in the screen house until the growth is established and ready for field distribution.



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# ORGANIC PRODUCTION OF CASHEW PLANTING MATERIALS

