

COMMERCIAL CROP PRODUCTION GUIDE SERIES

Growing Pawpaw in Nigeria



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Variety

Various accessions of land races and exotic varieties such as Homestead, Pink solo, Kapoho solo and JS.22 are available at the National Horticultural Research Institute (NIHORT). Since fruit size, shape, pulp color, and time of fruiting differ, advice must be sought in selecting which variety to plant.

Nursery

Although pawpaw may be planted directly in the orchard, considerable savings can be made on seeds and labor, by using transplanted seedlings raised in the nursery. Raise seedling from seeds extracted from ripe pawpaw fruits. Scrub the seeds lightly with sand to remove the gelatinous covering. Mix the slurry of sand with water; the bad seeds and gelatinous covering of the seed will float. These should be removed. Drain the good seeds and spread out in the shade to air dry. Sow the air-dried seed trays, polybags or any container which has rich moist topsoil by watering every other day. The seeds should germinate within 2 weeks and be ready for transplanting within 8–12 weeks after sowing. Seeds meant for transplanting in May should be sown in February/March.

Orchard management

Site the orchard on a well-drained soil. Although loamy sand is preferred, pawpaw can tolerate a wide range of soils provided it is not waterlogged. Plough and harrow the orchard site and plant the seedlings in holes of 15 cm –20 cm deep and 2 x 2 m spacing. In large planting areas, after planting 10 rows, leave a corridor of 4 m to allow movement of equipment. Plant 3 or 4 seedlings per hole when using a dioecious variety, to ensure a high female population. Transplant the seedlings when the rains have stabilized. Homestead plants set fruit 3 months after transplanting and ripening starts 8 months after transplanting and lasts 3 months. Harvest fruit at “Blush” stage and avoid bruising. About 40–70 t/ha can be obtained since yield declines after second harvest. Plants should be cut down after 3 years, a break crop can be planted before the old trees are cut down on the same site and used again. Establish another orchard 2 years after the bearing orchard to ensure a continuous fruit supply.

Fertilizer application

Apply 50 g of NKP 15-15-15 per plant , 3 weeks after transplanting and at monthly intervals up to 6 months after transplanting. Optimum yields have been obtained using 45 g N/plant and a 1:2 N: P ratio. However, application rates should be based on soil test results in order to make maximum use of the fertilizer application.

Weeding

Weed control is very important especially during the first 3 months after transplanting. This may be achieved by hoe weeding, slashing at monthly intervals, or by the use of the herbicide Paraquat glyphosate at 4–6 or 3 kg active ingredient per hectare.

Irrigation

Dry season irrigation is important for pawpaw. For newly transplanted seedlings, apply 3 liters of water per plant twice a week, For flowering plants, apply 5 litres twice a week, and for bearing plants apply 15 liters of water per plant once a week.

Intercropping

Intercrop pawpaw, planted at a spacing of 2 x 2 m, with early maturing plants like okra, leafy vegetable, melon, sweet potato, or sweet corn. These plants should mature within 3 months or poor yields will be obtained due to shading of pawpaw canopies.

Pest control

Nematode control is very important. This can be achieved by applying a teaspoonful of Furadan per seedling, 3 weeks after transplanting and rotating the orchard. If grasshoppers invade the plot spray Gamalin 20 15 mls/10 liters of water.

Summary;

1. Use recommended variety
2. Use recommended spacing
- 3 Apply fertilizer as recommended
- 4 Irrigate in the dry season
- 5 Harvest at 'Blush' stage

**The information for this Production Guide was obtained from Extension Research Liaison and Training Unit
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About ICS-Nigeria

Information and Communication Support for Agricultural Growth in Nigeria (ICS-Nigeria) is a project which aims to increase the quantity and quality of information available for increased agricultural production, processing, and marketing and also strengthen the capacity of farmer assistance organizations to package and disseminate information and agricultural technologies to farmers for the alleviation of rural poverty.

In the recent past, investment in the support services to Nigerian agriculture has been neglected with the result that this sector has not realized its full potential to contribute to the prosperity and economic development of the country. Meanwhile, increasing population pressure and the accompanying need to intensify agricultural production is leading to erosion of the natural resource base on which agriculture depends.

The sustainability of production is threatened by a vicious cycle of declining soil fertility and increasing problems of pests, diseases, and weeds. Moreover, the lack of knowledge on how to add value through proper storage, processing, and marketing impedes agricultural growth.

Promising technologies exist to address these problems, but their adoption is constrained by a lack of information packaged in appropriate formats, and poor communication channels for this information, between farmers and the research, extension, and education organizations that are supposed to address these issues.

ICS-Nigeria aims to assist in meeting these challenges by developing appropriate format materials for disseminating information and agricultural technologies to target user groups, while increasing capacity of farmer assistance organizations to produce information materials. At the same time, communication channels will be reinforced so that information flow is enhanced.

Agricultural technologies have been selected on the basis that they will lead to agricultural commercialization thereby enhancing rapid income generation for farmers and private sector practitioners. The project is taking advantage of existing agricultural development programs in Nigeria, national research institutes, and international research institutes in and out of Nigeria to identify these technologies. The project is also taking advantage of existing successful partnerships arising from recent and ongoing programs to enhance information flow.

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