



Crop Management Practices

An Agricultural Extension Initiative of **INDORAMA**

Onion



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Onion



Onion is one of the most commonly consumed vegetable crops in the world with China being the number one producer of onions while Japan and India are the second highest producers of green onions and dry onions respectively. Nigeria ranks sixth amongst the top ten producers of green onion and eleventh in terms of dry onion production. In Nigeria, onion is grown mostly in Kano, Kaduna, Jigawa, Sokoto, Plateau, Bauchi and Kebbi States. In 2012 alone, an estimate of about 240,000 tons of green onions and 1,350,000 tons of dry onions were produced in Nigeria. According to statistics and data research, Nigeria had a world share of 5.5% out of a total of 4, 339,925 tons of green onions produced in 2012 and a 1.6% share of a total of 82, 815, 927 tons of dry onions produced around the world in 2012.

Onions are one of the most consumed vegetable crops in Asia and Africa, especially Nigeria. In 2012, about 240,000 tons of green onions and 1,350,000 tons of dry onions were produced in Nigeria alone, excluding the rest of Africa, or the world at large. This large figure places Nigeria on the list of the top 10 largest producers of onions in the world.

The potential in onion farming in Nigeria or anywhere else in Africa continues to glow

brighter with every passing year. The ease of cultivation, widespread uses, and excellent health and financial benefits of onions makes them a top choice in the preparation of most meals in Nigeria.

Soil requirement: Onion can grow on most soil types. However, well-drained sandy-loam soils with PH 6-7 are particularly good for the crop. The soil should be loose and exposed to sunlight. The looser the composition of your soil, the larger your onion bulbs will grow. The soil should be moist before sowing so check the soil the day before sowing and water if the soil is dry.

Site selection: the site selected should be flat and free from stumps. The site should also have low atmospheric humidity and clear bright days. The optimum temperature requirement for crop development is between 15oC –25oC while for seedling growth is between 20oC - 25oC.

Land Preparation: Ploughing and harrowing of land to prepare a good and flat seedbed is necessary. If adding manure or composted organic matter then add a few weeks before sowing /planting.

Seed rate and treatment: 8-10 kg seed is sufficient for raising seedlings for one hectare,

treat the seeds with Azospirillum @ 400 g/kg of seed using rice gruel as adhesive, dry under shade for 30 minutes and sow them Apply VAM

1 kg/sqm in the beds along with FYM 10 kg/sqm before sowing.



Planting

Plant 45 day's old seedlings at a spacing of 10 cm apart on both the sides of the ridges.

Fertilizer Requirement:

Onion responds very well to organic manure. Organic manure at 25 to 40 t/ha is recommended to obtain high bulb yield. Good crop of onion gives very good response to fertilization, heavy N, P, and K application of about **150 (7 Bags of Indorama Urea), 100, and 50 kg/ha, respectively**, is recommended for mineral soils.

Nursery practices: In the tropics the seed is usually sown in a nursery under a mulch cover. In the nursery prepare raised beds maximum 1 m

wide and incorporate plenty of well-decomposed compost and fowl droppings. For good germination in the nursery, a well-tilled seedbed with a fine loose surface is necessary. The seeds are then spread evenly over the sand in the groove. Hand weeding and watering should continue until the seedlings are 6-8 weeks old when they should be ready for transplanting.

Transplanting: The land for transplanting should be well prepared and leveled. Seedlings should be transplanted to the field six-eight weeks after sowing in the nursery. When transplanting, spread the roots carefully in the natural position before pressing the soil around. Again space rows about 30cm apart. Sow sets around 10 cm apart as they shouldn't require any thinning.



Harvesting

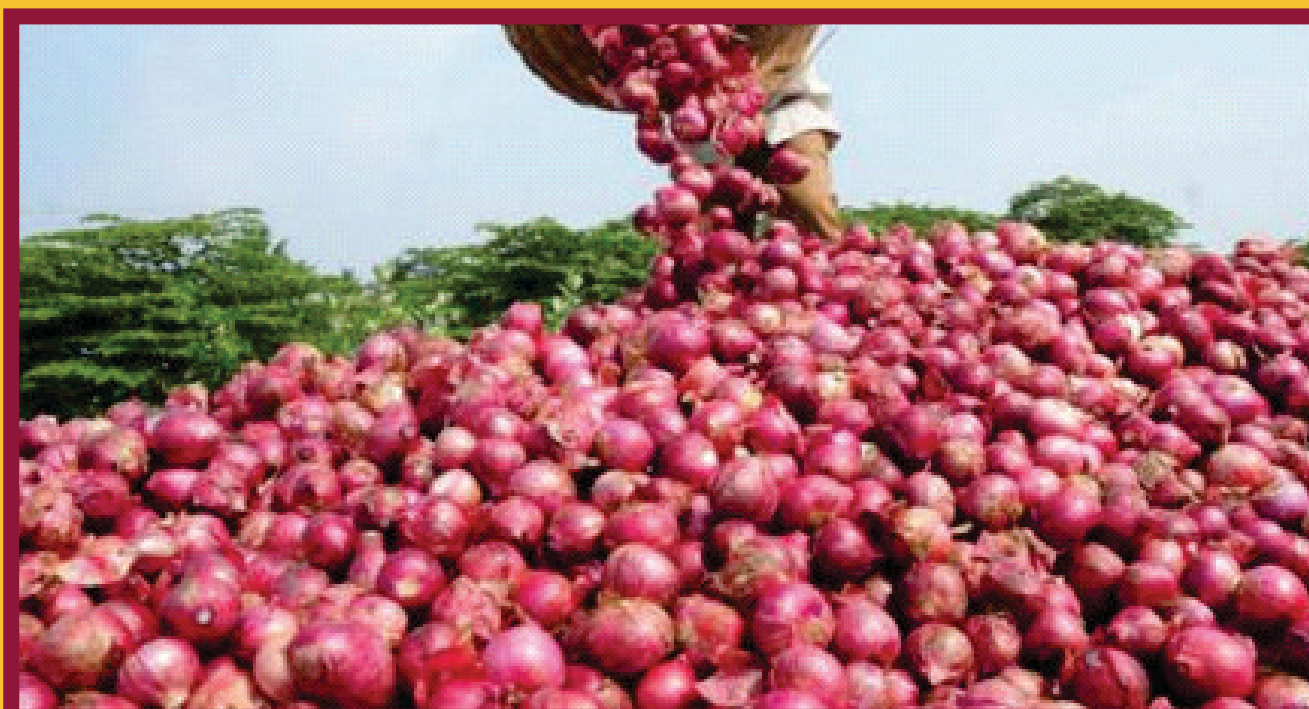
Onions are ready to harvest a week after their tops have started to fall over and are yellowed. It can be harvested by hand pulling or using a fork to lift the onions out of the ground. In firm soils where pulling is difficult, the onion roots can be cut just below the bulbs by using a knife. Take care not to damage the skins as this invites decay organisms in to attack the onion flesh which could cause rotting during storage. Spring onions can be harvested when they are about 30-40cm in height and will store for up to a week in the fridge. To prepare spring onions simply remove the outer set of leaves and wash.

Yield

Under good management practices, yield of 20-25 tonnes per hectare could be obtained. Onions pulled green keep better in the store than those allowed to ripen off completely in the ground. Bulbs that are harvested when they are too immature may take longer than others to dry properly for storage, and, if the necks are not yet soft, the inner leaves may still be growing and will continue to elongate from the topped bulbs, yielding an unsightly product. Harvesting must be done in dry weather.

Curing: Before onion bulbs are placed in storage or marketed, the tops are usually removed and frequently also the roots. The neck tissues, and all other moist surface tissue of the bulb where organisms might become established, should be carefully dried before infection can occur. This drying procedure is known as curing. After harvesting and curing, the onion crop is kept in storage regardless of the season they are produced.

Storage: The harvested onions are preserved in silos. The storage structures consists mostly of bamboo or wood stacks stuffed with grass. Ambient air is allowed to enter the storage structures. The onions could store for up to 6 months in these conditions. It is sad that most Nigerian onion producing communities lack modern processing and preservation plants. These are the areas the Ministry of Agriculture needs to look into. It is also an opportunity for private business people to explore too.



This document is prepared for Farmers to create general understanding of beneficial practices for higher crop production. This manual only provides general range of management options so you can choose alternatives best suited to your operations. For a deeper understanding, please contact a Govt Agriculture Expert. You can reach our Agronomists at the Farmer Service Center: Mr. Magaji: 09087070011, Mr. Peter: 09087070012 Email: basingh@indorama.com.ng

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