

In Nicobar, there has been a key focus on introducing improved package practices to diversify vegetable cultivation, particularly okra, which remains the most preferred and widely grown vegetable in the backyard farming systems of Nicobar Islands. Okra (*Abelmoschus esculentus*) is valued for its nutritional content, including vitamins, minerals, and dietary fiber. Traditionally, farmers have relied on sustainable, mixed cropping systems with locally available seed varieties, promoting minimal external inputs. However, these systems face challenges in meeting the increasing demand for vegetables due to low productivity and insufficient crop diversity. In this context, developing improved package practices is crucial to enhance yield and productivity. These practices include the introduction of high-yielding okra varieties, better soil management techniques, effective pest control, and optimized irrigation methods.

#### Key Agro-climatic conditions for okra Cultivation

The Nicobar Islands' climate is highly suitable for Okra cultivation due to its warm temperatures (22°C to 35°C) and well-drained soils with high organic content.

#### Recommended varieties of okra

Green/Light Green Fruited Varieties: Pusa Sawani, Pusa Makhmali, IARI Selection 2, Kiran, Salkeerthi.

Yellow Vein Mosaic Resistant Varieties: Arka Anamika, Arka Abhay, Arka Nikitha, Susthira, Anjitha, Manjima.

#### Land preparation

It is recommended that farmers in the Nicobar Islands consider adopting a more integrated approach to land preparation that combines traditional and modern techniques for greater efficiency and sustainability. While clearing the land with tools such as machetes, sickles, and axes

remains essential, it is advisable to minimize the use of the slash-and-burn method due to its environmental impact. Instead, farmers could explore alternative methods, like using cover crops or organic mulch, to improve soil fertility and reduce the need for burning. After clearing the land, removing stones with spades and pickaxes is crucial, but it may be worth considering the use of small mechanical or motorized equipment to speed up this process, especially in larger fields.



For loosening the soil, farmers should continue using hoes or digging sticks, but it may be beneficial to explore the possibility of incorporating more advanced tools, such as power harrows, which could further improve soil texture and make tilling more efficient. The use of a mini power tiller for ploughing is highly recommended, as it ensures a more consistent and deeper ploughing depth, essential for successful okra cultivation.

Finally, instead of manually leveling the soil with a wooden board or rake, farmers could consider using small-scale leveling equipment or tools to achieve better water drainage and a more even planting surface. This would ultimately support healthier okra growth, improve yields, and reduce

labor time. Integrating these recommendations can help optimize the cultivation process while preserving the land's long-term productivity.

#### Seed rate and sowing methods

With the successful intervention of KVK Nicobar, farmers are currently using the row planting method while maintaining adequate spacing to ensure that the okra plants have enough space to grow and develop effectively. The spacing between rows is kept at 50-60 cm, and the spacing between each seed within the row is maintained at 30 cm. This arrangement allows each plant to access sufficient sunlight, air, and nutrients, promoting healthy growth and maximizing yield.

The seed rate for okra cultivation is typically **15-20 kg per hectare**, depending on soil fertility and the desired plant population.



#### Nutrient management

In Nicobar, as an organic district, farmers are advised to utilize organic methods for nutrient management in okra cultivation. They enrich the soil with organic fertilizers like poultry manure or vermicompost providing essential nutrients like nitrogen, phosphorus, and potassium that are vital for okra growth. Additionally, they incorporate residual organic matter from previous crops, such as decomposed plant materials, into the soil. This practice improves soil structure, enhances

moisture retention, and supplies important micronutrients, thereby helping to maintain long-term soil fertility.

## Irrigation management

Irrigation in Nicobar mainly relies on rainfed water sources, as the region receives a significant amount of rainfall. However, during dry periods, farmers are advised to employ irrigation methods such as utilizing water harvesting structures.

## Intercultural operation

In the Nicobar Islands, where organic farming practices are emphasized, manual intercultural operations like weeding and earthing up are crucial for okra cultivation. Weed management can be done using hand tools such as hoes, with regular weeding (every 2-3 weeks) helping to prevent competition for nutrients and water. Additionally, organic materials like coconut leaves are used for mulching, which helps suppress weeds, retain moisture, and improve soil health. Earthing up is needed to be done when okra plants are 4-6 weeks old. This practice not only supports the plants but also enhances nutrient and water access, leading to better overall crop development.



## Plant protection – pest and disease management

As organic farming is prioritized in Nicobars, plant protection for okra need to focus on natural methods. Neem-based products, such as Neem oil, Neemashastra, and Brahmsahrta are advised to control pests like aphids, whiteflies, and mites. For fungal diseases, natural fungicides like trichoderma help manage diseases. Additionally, cultural practices like crop rotation, proper spacing, and timely harvesting help reduce pest and disease pressure, supporting overall plant health. These organic methods ensure sustainable and effective pest control for okra.

### Harvest frequency

Since okra grows quickly, harvest every 2<sup>nd</sup> day to maintain quality.

**Yield:**

### Summer Crop: 5-7 t/ha

### Rainy Season Crop: 8-10 t/ha

Quality Tip: Handle okra carefully as the pods bruise easily. Longer pods become tough and fibrous.



## Package of Practices for Okra in Nicobar Islands



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