

1. IMPROVED VARIETIES

Boldgrain, Uttam, Deepak, Nuinui & Star are the recommended varieties

They are:-

- Short statured- Do not lodge (fall over)
- Early maturing (110-130 days)
- Respond to fertilizers (high yield)
- Not sensitive to day length
- Long slender grains
- Good grain quality (better prices)
- Hard fluffy rice on cooking
- High yielding
- Good wetland rice varieties.

2. FOR HIGH YIELDS

- Use improve varieties
- Use good cleaned seeds
- Prepare field well
- Follow good cultivation practices
- Control pests and diseases
- Control weeds

3. GOOD & CLEAN SEED

Use seeds that are:-

- Pure
- Uniform-large seeds
- Good germination
- Free from weed seeds
- Free from seed-borne diseases and pests
- Low moisture content

4. GOOD FIELD PREPARATION

Good tilth up to 15-20 cm deep for:

- Better weed control
- Better rotting of weeds and trash
- Better water control
- Easier puddling and leveling.
- Even plant growth

A. *Rain fed*

- First ploughing in October/November
- Followed by 1 or 2 harrowing, another plough & harrowing
- Leveled and puddle

B. *Irrigated*

- Proper rotation for incorporation of weeds and trashes
- Puddle and leveled

Note:-

- Band the fields to retain water
- Level well for better water control
- For rain fed - transplanting is better
- For irrigation - transplanting or broadcasting.

5. NURSERY AND SEEDING

A. *For Transplanting seed Bed.*

- Prepare fine seedbed near water source and near to the planting site.
- Seed bed area 1/20th (500m²) equivalent to the area to main paddy field to be planted.
- Prepare 1-1.5 metre wide raised nursery beds of any convenient length with provision of drains of 30cm width between beds for good management.
- Sow the sprouted seeds on the nursery beds using a seed rate of 30-35kg/ha
- Apply adequate fertilizer with basal P and K and top dressed with N if soils are poor.
- Protect the seedlings from insect pests.
- Uproot and transplant seedlings in 3-4 weeks.

Sprouted seed method

- Immerse rice bag in water for 24 hours
- Remove bag from water and cover with rice straw for 38-48hrs.
- Turn bag once or twice and keep it wet during the period
- Remove sprouted seed from bag and sow in prepared seed bed.

B. *For Broadcasting*

- Prepare the land well with 15-20cm deep in dry conditions.
- Allow water in the field and puddle the field twice followed by perfect leveling
- Sow sprouted seeds at a rate of 70 - 80kg per hectare.

6. GOOD CULTIVATION PRACTICES

- Maintain water level for weed control (3cm-5cm)
- Hand weed when necessary
- Apply fertilizer at correct time-and correct dozes.
- Look out for pests and disease where necessary use chemicals for weeds, pests and diseases.

7. (a) FERTILIZERS FOR TRANSPLANTED RICE (1 ha)

For seed bed

- 2.5kg super phosphate as basal at land preparation and 1.0kg Urea after one week of germination.

For the Field:-

- At final puddling 22.5kg urea, 45.5kg Super phosphate, and 22.5kg of potash.
- At panicle initiation stage- 22.5kg urea.

(b) FERTILIZERS FOR BROADCAST RICE (1 ha)

- At final puddling apply 45.5kg of super phosphate and 22.5kg of potash.
- On 3 to 4 week old crop, top dress with 22.5kg of urea.
- At panicle initiation stage (50 to 65 days from seeding) apply 22.5 kg of urea.



8. WEED CONTROL

Control weeds with:-

- Proper land preparation
- Proper water control
- Hand weeding
- Use of Weedicides

CHEMICAL CONTROL

1. Broad leaves weeds and sedges - Apply MCPA 2.82 litres/ha or 56 – 85ml per 13.5 litres water using knapsack. Spray 4 weeks after transplanting and before booting for transplanted and 6 weeks after germination and before booting stage for drilled or broadcasted rice.
2. Grass weeds- STAM F.34-9.83-11.21 litres/ha on broadcast rice 3 to 4 leaf stages. SATURN-50% a.i 5.61 litres/ha- for direct seeded under irrigation and 5.61 – 8.42 litres/ha for transplanted rice. Spray 3-7 days after transplanting. Apply on fine weather. Flood field after 2-3 days. PROPAL at a rate of 340 mls per 15litres of water when using knapsack, 30 knapsack per hectare or 10-11.5 litres per hectare. Using mist blower, 510 mls per 10 litres of water or 17 litres per hectare. Drain field properly and spray when grasses are 4-5 leaf stage.
3. All weeds- Basagran, spray 7.01-8.42 litres/ha. Field should be drained 24 hours before applying.

9. PEST CONTROL

A. Plant Hoppers

Most destructive – sucks plant juice, causes wilting, and death.

Spray basal portions of plants with – ORTHENE 75% a.i. - 1kg a.i. /ha or 20gm formulation/14 litres of water when spraying with knapsack sprayer or 75g/Mistblower.

B. Rice Armyworm

Cuts leaves and panicles, spray DIPTEREX 80% W.P. 1.12kg a.i/ha or 28ml/14 litres of water when using a knapsack sprayer, and use 8ml in a Mist blower.

C. Rice Leaf Roller

Attacks leaves, spray leaves with SEVIN 80% a.i 1kg a.i/

ha or 17gm formulation/14 litres of water when using a knapsack sprayer and 50gm formulation/10 litres of water when using a mist blower. CARBACIDE 85 (800g/kg Carbaryl WP) at 27 gms per 14 litres of water when using knapsack sprayer and 18 gms/10 litres water when using mist blower. Spray every 2-3 week intervals.

10. DISEASE CONTROL

No serious rice disease in Fiji.

11. SOME POINTS TO REMEMBER

- With improved varieties 2 crops a year can be harvested.
- Traditional varieties are not suitable for double cropping.
- Fine grain varieties fetch better prices in the market
- For maximum yields from improved varieties, maintained high levels of management.

12. HARVESTING

- Harvest when it is about 80% mature
- Thresh immediately after harvest to maintain grain quality
- Dry immediately after threshing to 14% moisture levels.

13. STORAGE

- Fill in clean bags
- Keep in well aerated cool and dry place
- Stack bags on planks away from walls
- Chemicals can be used to control gain moth and rice weevil. Drying may also help often.

14. GROSS MARGIN

- a) Transplanted - \$1500 - \$1800 per hectare
- b) Broadcasted - \$1100 - \$1300 per hectare



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Wetland RICE Cultivation

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