National Food Security Mission

Note on critical inputs for Rice, Maize and pulses

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The productivity of rice and maize in Meghalaya is much lower than the National average and less than many of the other NE states. The productivity can be enhanced by 25-50% with appropriate package of practices viz., adoption of integrated nutrient management, weed management, integrated pest management, etc. The seed replacement with improved varieties or hybrids is another area of importance. The cropping intensity can be enhanced by cultivating boro rice, inclusion of pulses and oilseeds in rice fallow and pulses such as black gram and French bean in maize fallow. Some critical points are noted below-

Table 1. List of varieties of different crops

Crop	Varieties
Rice	1. **High altitude**: Megha rice 1 and Megha rice 2 2. **Mid altitude**: *Transplanted Lowland:* Shahsarang 1, Lampnah, IR 64, Subhadra *Direct seeded upland:*Bhalum 1, Bhalum 2, IURON 514,Bhalum 3, Bhalum 4, RC Maniphou 6 *Short duration:* VivekDhan 82, VL Dhan 61, Sahbhagi 3. **Low altitude**: Naveen, Gomati, Ranjit, IR 64, 4, CAUR1, RC Maniphou 6, RC Maniphou7, RC Maniphou10, RC Maniphou11,Arize 644
Maize	HQPM 1, Vivek QPM 9, Vijay Composite, RCM 75, RCM 76, DA 61A
Lentil	Moitree, DPL 15, DPL 62, DPL 81, IPL 406, PL 8, HUL 57, NDL 1
Pea	**Vegetable pea:**Arkel, Azad, Adarsh **Field pea:**Prakash, Vikash, TRC P8, TRC P9
Black gram	PD 4, T9, Kalindi
Green Gram	Uttara, Samrat
Toria	TS 67, TS 38, TS 46, M 27

Table 2. Critical inputs to be given to the farmers

Crop	Critical input
Rice	1. Improved seeds (Seed replacement) 2. Seed treatment- *Soak seed in Tricyclazole 75 WP or Bavistin 50 WP at 2 g/lit of water for 2 hours)* 3. Fertilizer and manure- *Manure at 5 t/ha and NPK at 80:60:40 kg/ha (at least 50% of fertilizer shall be provided)* *Apply Zinc sulphate at 25 kg/ha to lowland rice once in three years before transplanting.* *4.* Pesticides *Monocrotophos 36 EC @ 2 ml/litreof water or Chlorpyriphos 20 EC @ 1 ml/litre of water at 45 DAT for the control of leaf folder, case worm, stem borer and hispa, and carbofuran 3G for rice stem borer at 12.5 kg/ha. Use Trichocard to control stem borer.* 5. Tools (*Conoweeder for SRI farmers*)
Maize	1. Improved seeds (Seed replacement) 2. Fertilizer and manure- Manure at 5 t/ha and NPK at 80:60:40 kg/ha (at least 50% of fertilizer shall be provided) 3. Pesticides *Carbofuran 3G two granule per whorl of maize plant to control shoot fly and stem borer* 4. Lime (furrow application at the rate of 500 kg/ha before sowing and mix thoroughly in to the soil) 5. Tools (Maize sheller)
Pulses	1. Improved seeds (Seed replacement) 2. Seed treatment- *Rhizibium and PSB* 3. Fertilizer and manure- *Manure at 5 t/ha and NPK at 25:60:40 kg/ha (at least 50% of fertilizer shall be provided)* 4. Tools (Furrow opener for zero tillage sowing or Zero till seed drill)
General	1. One **Custom hiring center** for each village consisting- • Water pump • Knapsack sprayer • Paddy thresher • Winnower • Furrow opener • Zero till seed drill 2. 2% urea or DAP spray for pulses i/e. 20 g urea per litre of water at flowering stage. 3. For easy sowing of pulses in rice fallow under zero tillage condition using furrow opener, transplant rice in line with at least 20 cm spacing between row to row. 4. In rice fallow, for pea, lentil and toria, retain standing rice stubbles of 20 cm height. 5. In Maize fallow, retain the stalks of maize to grow the black gram and French bean. 6. Proper storage of seed at about 10-12% moisture to use for succeeding year. 7. In case of water logged condition at rice harvest, provide a narrow drainage channel (30 cm width x 20 cm depth) around the standing rice crop at an interval of 5 m during physiological maturity (10 days before harvest) of the rice crop. This will ensure a fairly dried field for sowing of pea/lentil/toria within 15-20 days of rice harvest.