

ICAR KHARIF AGRO-ADVISORY FOR FARMERS



INDIAN COUNCIL OF AGRICULTURAL RESEARCH
Krishi Bhawan, New Delhi



MEGHALAYA

Paddy

- Prepare nursery for *kharif* paddy variety Sahsharang, RCM 10, CAU R1 (about 500-1000 sq. meter) for raising seedlings for one hectare area (40kg HYVseeds/ha).
- Use FYM and Vermicompost in nursery beds
- Seed treatment with *Trichoderma harzianum* @5g/kg seeds
- Drenching of the nursery with *Trichoderma harzianum* @5g/l of water before sowing
- *Trichoderma harzianum* @ 2.5kg + 50 kg FYM. 10-15 days before sowing seeds in nursery
- Prepare main paddy field for 2-3 ploughing with power tiller and mix FYM 5t/ha at ploughing
- Transplant paddy with about 20-25days old seedlings at 20 x 15 cm spacing.
- Spraying of neem oil @ 3 ml/l at 10DAT
- Release of *Trichogramma japonicum* @ 50000 eggs /ha 35 DAT
- One spray of *Beauveria bassiana* @ 7g/l at boot leaf stage.

Maize

- Maize sowing at 60x30 cm spacing should be done with HYV variety RCM 75, RCM 76, RCM 1-3 or intercropping with Dwarf French bean (var. Pant Anupam) upto last week of May
- Seed treatment with *Trichoderma harzianum* @5g/kg seeds or *Azospirillum/ Phosphobacteria* @ 20g/kg seed
- Manual weeding & earthing up in early sown maize should be done to avoid heavy wind destruction
- If any incidence of Fall Army Worm is witnessed in coming days, farmer may apply dry soil in whorl of the infected plants or Neem oil (1500 ppm)



- Release of *Trichogrammapretiosum* @50000 eggs /ha
- Spray *Metarhizium anisopilae* @ 5gm/litre water in the whorl of the leave 15 to 25 Days after planting

Ginger and Turmeric

- Sowing of ginger variety Nadia, turmeric var. Megha turmeric 1 or Lakadong should be completed immediately with seed rate of 15-20q/ha and 30x30cm spacing
- Before sowing, treat the rhizome seed by dipping in *Trichoderma Viride*@4g/lit of water for 5 minutes or *Trichoderma harzianum*@ 10ml/ litre.
- Proper weeding and earthing up of the crop should be done, if already sown.
- Planting in ridges and furrows and provide proper drainage
- Intercropping can be done with soybean, rice bean, frenchbean, finger millet and maize
- Mulching of the beds with dry paddy straw or green leaf mulching to prevent soil erosion, for soil and moisture conservation and weed control
- Spray *Trichoderma Viride* or *Trichoderma harzianum*@10ml/ litre or Neem oil 10000ppm @2ml/litre to prevent soft rot.

Kharif Vegetables

- Vegetable nursery (*Cucumber, Bitter Gourd, Ridge Gourd, Bottle Gourd, Chilli, Brinjal and Okra*) should be prepare on raised bamboo structures with polythene cover on top to prevent damage due to heavy rain and hailstorm
- Planting in ridges and furrows and provide proper drainage channels
- Add FYM/ Vermicompost in nursery for healthy vegetable seedlings
- Mulching with locally available materials like paddy straw to prevent soil erosion, for soil and water conservation, weed control
- Compost making by 18 days compost method or pit method or by producing Vermicompost to meet own manure requirements



- Making own biopesticides by using locally available leaves, garlic, tobacco etc
- Frequent irrigation at 10-15 days interval is to be given depending on weather condition
- for crops under protected cultivation (including high value crops).

Fishery

- De-silting of Ponds for further fish farming. Repairs of Ponds, dykes inlet outlet etc.
- Pre-stocking management in pond in composite fish culture such as clearance of aquatic weeds, repeated netting out of predatory and weed fishes
- Surplus common carp brood fish if any, can be disposed.
- Time for breeding of exotic carps & Indian Major Carp.
- Production of fish fingerlings should be started.
- Avoid fish stocking density of more than 10,000 fingerlings per ha.
- Fish stocking should be done @3:4:3 (Surface feeder: Marginal feeder: bottom feeder).
- Fish grower may prepare fish feed in home by mixing mustard cake, rice polish with cooked rice.
- Land preparation for paddy cum fish farming.

Piggery

- Supplement mineral mixture @ 50-60g/day/ adult sow and calcium to the lactating and pregnant sows @ 60-80 ml/day/sow to maintain productivity.
- Locally available banana pseudo stem, Colocasia, sweet potato may be used as alternative feed for pigs.
- Avoid water logging near the pig houses to prevent mosquitoes from breeding and acting as carrier of infectious diseases also keep the shed dry and clean.



- Deworming should be done with *Albendazole/ Febendazole* @ 7.5 mg/kg Body wt (at three months interval). In highly infested area it may be advisable to repeat after every 2 months.
- Shed should be constructed in such a manner to reduce/prevent inclement weather from affecting the animals. Proper roofing and walls should be maintained.
- Quarantine of newly purchased piglets for at least a week before introducing to the existing stock.
- Supplement mineral mixture daily @20g/pig with feed. Provide sufficient clean drinking water.
- Vaccinate the pigs against Swine Fever.

Prevention and Control of African Swine Fever (ASF) in Pig

- Immediate quarantine of infected and suspected farms until diagnosis is confirmed.
- Establish disinfection points at entrances and exits of the pig farm/ pig sty. Foot dip with disinfectant should be made mandatory at the entry point of each pig shed. Pig shed should be disinfected daily with 1% formaldehyde or 2% NaOH or paraphenylphenolic disinfectants.
- Personnel and visitors leaving the farm should ensure that shoes, clothing and equipment are disinfected.
- Pigs should not allow them to comingle with other pigs, wild boar and other animals.
- No diseased pigs should be sold to traders/ butchers. Stringent environment friendly measures should be adopted for proper disposal of farm waste.
- Proper disposal of dead carcass with deep burial of 6 feet deep using lime/bleaching powder.
- Purchase of new pigs from known sources only. Newly purchased pigs/ piglets should be housed separately in quarantine shed for about 4 weeks.



- Swill feeding should be restricted and if practiced, it should be boiled properly before feeding.
- Farm utensils used for feeding of diseased pigs should not be used for feeding of healthy pigs.
- Movement of animals from one household to another/ animal fairs should be strictly prohibited.
- Movement of personnel (veterinarians and farm workers) from one farm premises to another is prohibited. No visitor should be allowed to go inside the farms.
- Management of animal health including regular deworming and minerals and vitamins supplements.
- If any pig suffers from disease, it should immediately be separated from the healthy stock and should be reared in quarantine shed till it is fully recovered.
- Proper record keeping of animal health and entry and exit of visitors should be maintained.
- Any suspected cases of ASF should be immediately reported to Veterinary doctors and to the District Veterinary Officer.

Poultry

- Poultry shed must be cleaned and ventilated and provide clean drinking water 3-4 times in a day and sometimes add electrolytes to water.
- Backyard Poultry breed like Vanaraja, Shrinidhi, Kuroiler etc can be reared in low-cost housing.
- Overcrowding should be avoided. Maintain atleast a minimum space of 1^½ sqft/ bird. Care should be taken to avoid heat stress in birds.
- The litter materials in poultry shed need to be changed to prevent coccidiosis infestation. If red diarrhoea symptoms are noticed in the birds, immediately administer anticoccidial drugs in the drinking water for 3 -5 days.



- Farmers are advised to clean the house of poultry birds regularly with phenol@1 ml/ l of water to prevent infection.
- Avoid water logging near the poultry houses to avoid flies/mosquitos and keep the houses dry and clean and well ventilated with weekly turning of litter materials
- Birds should be vaccinated against the Ranikhet disease, Marek's, Gumboro and Fowl pox as per the schedule.
- Any usual deaths or illness in the flock should be immediately reported to your nearest veterinary centre.

Cattle/Goat/Sheep

- Animal sheds should be cleaned, dry and well ventilated. No Water logging near the sheds to avoid mosquitos.
- Deworming and vaccination should be done as per schedule.
- Provide sufficient clean drinking water. Supplement mineral mixture and vitamins daily
- Prepare the waste land for growing fodder.
- It is the best time to sow and planting perennial fodder grasses like Hybrid Napier, Guinea, Para, *Stylosanthes* etc.
- If applicable a proper grazing area with identified fodder grasses is encouraged to prevent deaths due to poisoning from eating of toxic plants.

Mushroom

- Growing of oyster mushroom especially *Pleurotus djamor* (Pink oyster mushroom) indoor using paddy straw will fetch additional income to the farmers during COVID-19 pandemic and may increase nutritional status in their diet.

Self-Help Group

- Women members in SHGs, should establish Nutrition Garden in each household to get fresh vegetables which are rich in vitamins and minerals to enhance immunity to combat COVID19. The



vegetables like brinjal, capsicum, chilli, cucurbitaceous vegetable etc can be grown in kitchen garden. The members of SHGs can also make mask, hand gloves, cotton clothes for family members and neighbouring community for safety from COVID19 as well as additional income.

