NRCL EF-16

Litchi Care Planner : Month-Wise Practices

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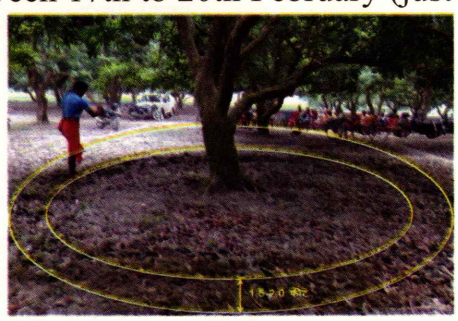
LITCHI CARE PLANNER: MONTH-WISE PRACTICES

JANUARY

- Infested shoots and dried twigs, if any should be removed and destroyed.
- In case of no winter rain or under deficient soil moisture conditions, apply light irrigation.
- Spray Zinc sulphate (33%) 2 g/L one week prior to panicle emergence. Application of Zn increases number of female flowers.

FEBRUARY

- Undertake preventive measures for insect pests particularly stink bug and flower webber. Do two sprays of any of the insecticide combinations at recommended dose, viz., Thiacloprid 21.7% SC (0.5 ml/L) + Profenophos 50% EC (1.5 ml/L) or Lambda cyhalothrin 5% EC (1.0 ml/L) + Dimethoate 30% EC (1.5 ml/L). In context of Bihar, first spray should be done between 7th to 10th February and second spray between 17th to 20th February (just after panicle emergence).



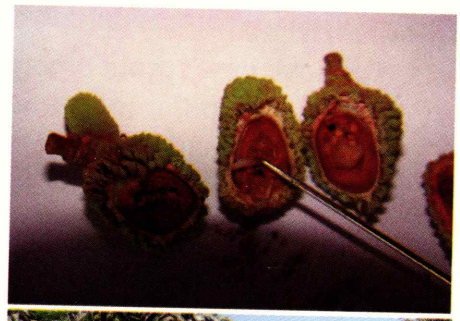
- Along with any one of the above mentioned insecticide combinations in the second spray, add one fungicide Thiophanate methyl 75% WP (2.0 g/L) or Azoxystrobin 23% SC (1.0 ml/L). Use sticker in the spray solution (0.4 ml/L).
- Apply microbial consortia (Trichoderma 200 g + Mycorrhiza 200 g + Azotobacter 100g) mixed with 4-5 kg well rotten FYM to trees in active root zone (1 m inside from outer boundary of tree canopy). Apply on surface soil and mix it. Do not apply by 'pit method' as done for fertilizer application.

MARCH

- Keep honey bee hives @ 10-15 boxes/ha in the orchards after opening of the 5-10% of the flowers for proper pollination and fertilization.
- Plant protection measures should be applied only after proper fruit set and removal of bee hive boxes. No insecticide should be sprayed during the flowering.
- For control of panicle blight, spray Thiophanate methyl 75% WP (2.0 g/L) or Azoxystrobin 23% SC (1.0 ml/L) or Difenoconazole 25% EC @ 1.0 ml/ L.
- To prevent fruit drop, spray Planofix @ 2 ml/ 4.5 litre of water or NAA 20 ppm (20 mg/L) 7-10 days after fruit set.
- Maintain optimum soil moisture after fruit set by applying light irrigation.

- For organic litchi cultivation, Nimbicidin (Azadirachtin 300 ppm) or Neem seed extract @ 5 ml/L or Panchgavya 30 ml/L water can be sprayed. Repeat sprays at an interval of 7 days from first spray to check fruit borer menace.

APRIL



- Apply 500-600 g Urea and 600 g MOP per plant for proper growth and development of fruits.
- To prevent fruit borer infestation, spray Thiacloprid 21.7 SC (0.5 ml/L) or Novaluron 10 EC (1.5 ml/L. But, if there is infestation of stink bugs, spray Thiacloprid 21.7 SC (0.5 ml/L) + Lambda Cyhalothrin 5% EC (0.1 ml/L).
- Apply Borax @ 4 g/L of water twice at 15-day interval to minimize the fruit cracking.
- Bagging of fruit bunches 25-30 days after fruit set with non-woven polypropylene white bags to get quality fruits.
- Intercrops like turmeric, ginger, elephant foot yam (Ol), Colocasia (Arbi) etc can be sown/planted in new orchards.

MAY

- To prevent fruits from borer infestation, spray Novaluron 10% EC (1.5 ml/L) or Thiacloprid 21.7% SC (0.6-0.7 ml/L) or Fipronil 5 SC (1.5 ml/L) 18-20 days before harvest when the colour starts changing (at colour break stage). This spray will be required if adverse weather (untimely rain, easterly wind blowing at the time of fruit maturity or excess relative humidity in the atmosphere) prevails.
- Spray Emamectin Benzoate 5% SG (0.8 g/L) or Novaluron 10 EC (1.5 ml/L) or Lambda-cyhalothrin 5% EC (1.0 ml/L) or Flubendiamide 39.35% SC (1.5 ml/5 L) or Spinosad 45% SC (1.6 ml/5 L) or Spinetoram 11.7% SC (1.0 ml/L) about 10-12 days before the expected fruit harvesting
- Use mid canopy sprinklers in the orchard, alternatively spray of water on the crop canopy in the late afternoon protect from sunburn and cracking of fruits.
- To prevent fruit blight, spray Thiophanate methyl 75% WP (2.0 g/L) or Azoxystrobin 23% SC (1.0 ml/L) or Difenoconazole 25% EC (1.0 ml/L) water.

- Fruits should be harvested at proper maturity (Colour, TSS: Acidity ratio 40:1, or TSS More than 18-20° Brix).
- Harvest the fruits during morning hours (preferably 4-8 AM) and keep fruits in the shade at cooler place, where sorting and grading are to be done.
- If packhouses are available in the vicinity, transport the fruits there for avoiding high temperature effects and, for proper grading and packaging.
- Transport fruit in ventilated cardboard boxes or with suitable package in cool chain management up to sale point.

JUNE

- Prune trees (light pruning) just after harvesting of the fruits. Remove the insect-pest or disease affected or dried twigs, branches and undesired shoots/ branches from tree.
- Remove fallen/left over fruits or plant parts to avoid insect pest and pathogens hide-outs.
- Light ploughing and intercultural operations to be done for proper soil aeration and exposure to sun.

- Apply 60-70 kg well rotten FYM, 2 kg Neem or Karanj or Castor cake, 1.0 to1.2 kg Urea, 3.5-4.0 kg SSP and 1.0 kg MOP per plant in circular trenches (20-30 cm wide and 30 cm deep trench, 1-1.5 m away from tree trunk).
- Apply light irrigation before and after fertilizer application if there is no rain.
- Sowing of green manure crops (e.g. Dhaincha, Sanai) for soil health improvement.

JULY

- Protect new flush from infestation of defoliators insect pests like leaf miner, leaf roller and shoot borer. Two sprays of Novaluron 10% EC @ 1.5 ml/L or Fipronil 5% SC 2 ml/L) or Spinosad 45% SC (0.4 ml/L) may be done at 15 days' interval if required, particularly in young trees.
- 'In-situ mycorrhization' of litchi orchard can be done. For this sow Madua/Ragi *(Eelusine coracana)* crop@3-4 kg/acre along with Mycorrhiza culture 6-8 kg/acre and Farm Yard Manure (FYM) (200-500 kg/acre). Ragi should be cut before flowering which can be used for mulching tree basin or as fodder.

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- It is the right time for planting of litchi saplings in the field. In the flood prone areas, or water stagnation areas, fresh planting in rainy season should be avoided

AUGUST

- Remove mite affected plant parts (twigs & leaves) and bury them inside soil. Apply Chlorfenapyr 10 EC (3 ml/litre) or Propargite 57% EC (3 ml/L) to suppress mite population.
- Avoid water logging in the orchard for longer period by providing proper drainage channel.
- Remove nests of bark eating caterpillars, kill the larvae by inserting pointed wire in the holes followed by inserting cotton bits dipped in diesel or petrol and plugging the hole with wet clay soil. In case of severe infestation, insert a cotton bit soaked with 2-3 drops of Dichlorvos (DDVP) 76% EC or Chlorpyriphos 20% EC in the hole and plug with wet soil.
- If there is infestation of stink bugs, spray the recommended insecticide of the February month.
- This is the right time for rejuvenating senile litchi orchards.
- Turning up green manure crop in soil by end of the month.

SEPTEMBER

- Apply microbial consortia (Trichoderma 200 g + Mycorrhiza 200 g + Azotobacter 100 g mixed with 4-5 kg well rotten FYM) to trees in active root zone (1 m inside from outer boundary of tree canopy). Apply on surface soil and mix it.
- For regular bearing in cv. 'China,' girdling (2-4 mm girdling of 50-75% of primary branches) of tree bark should be performed by the end of the month.
- To manage bark eating caterpillar infestation, repeat the process mentioned in August.
- Spray Thiacloprid 21.7% SC @ 0.5 ml/L water to control the leaf eating insects.
- Clean the orchard after last monsoon rain and paint the trunk up to 1.5 m by Bordeaux paste (unslaked lime: copper sulphate: water; 500 g: 500 g: 50 L) or by copper oxychloride (2 g/L) to avoid diseases.

OCTOBER

- Remove weeds and do mulching of the tree basin with dried leaves/grasses.

- Prune and destroy mite infested shoots and spray Chlorfenapyr 10% EC (3 ml/L or Propargite 57% EC (3ml/L). It also protects the plants from weevil and litchi looper infestation.
- If Cu deficiency symptom appears on leaves, spray Copper sulphate (2 g/L) twice at 15 days' interval.

NOVEMBER

- Remove new sprout emerging from stem. Keep watches on bark eating caterpillar infestation and if required repeat the process of controlling bark eating caterpillar.

DECEMBER

- No activity

GENERAL TIPS

- Do not irrigate the orchard from November till the flowers appear.
- Maintain optimum soil moisture level in the orchard from fruit set to the harvesting
- Apply manure and fertilizers and spray only when there is sufficient moisture in soils of orchard.
- Do not use Planofix every year. Use it with cautions on expert's advice only.
- Never practice deep ploughing of litchi orchard. Rather, maintain sod culture in the orchard i.e. allow grass to cover the orchard floor.

- During July-October, use only need based chemical pesticides when insect pest is very high on tress that are below 10 years' age. Follow advice of experts.
- While making the chemical solution, add sticker @ 0.4 ml/L of water or ordinary detergent powder@1 teaspoonful/15 L.

Technical write-up

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December 2024