

SPRAY SCHEDULE YEAR 2024

(MANGO & CITRUS)



**Department of Horticulture,
Himachal Pradesh, Shimla-2
and
Dr. Y. S. Parmar University of Horticulture
and Forestry, Nauni, District Solan (H.P.).**

| SPRAY SCHEDULE FOR THE CONTROL OF INSECT/PEST & DISEASES OF MANGO FOR THE YEAR 2024 | | | | |
|--|----------------------------------|--|---|--|
| 1. | 2. | 3. | 4. | 5. |
| S. No. | Time/ Tree Stage | Name of Chemical | Quantity of Chemical for 200 L of Water | Control of diseases |
| 1 | January | KMS or NAA | 120 gm 40 gm | Malformation |
| 2. | Feb- March (Before Flowering) | Imidacloprid Wettable Sulphur or Hexaconazole | 50 ml 1000gm 100 ml | Hopper Powdery Mildew |
| 3. | March-April (Pea Stage) | Hexaconazole Monocrotophos* or Imidacloprid or Oxy-demeton methyl | 100 ml 200 ml 50 ml 200 ml | Powdery Mildew Mealy Bug/Hopper Hopper Hopper |
| 4. | May- June | If the plants are severely infested with insects, then spray any one of the insecticides recommended in the month of Feb- March. | | |
| 5. | July- August | Bait spray (Malathion* + Jaggery) Collect the infested and fallen fruits & burry them in pit covered with soil (up to a min. depth of 30 cm). | (400 ml + 2 kg) | Fruit Fly |
| 6. | September | If the plants are infested with the insects, then spray Monocrotophos* or Oxy-demeton methyl recommended in the month of March-April. | | |
| 7. | October | For the control of Malformation, spray any one of the insecticides recommended in the month of January. | | |

Note: - Points for consideration.

1. For the control of fruit fly of Mango, install para-pheromone lure traps to catch adults of fruit flies during the month of April to Sept.
Method of preparation: Dip the pieces of ply board measuring 80x20x18 mm in ethanol, methyl eugenol and malathion* (6:4:1ratio) for 24 hrs insert the treated ply board piece polyurethane bottles solution and install them at a height of 1.5 mt. from ground. Install 12 traps/ ha in mango orchards and clean them after every 15 days interval to remove dead flies.
2. The recommendations in the spray schedule are for normal climatic conditions only.
3. Do not spray the same pesticide repeatedly.
4. Use of pesticides should be done only when chances of disease/pest occurrence is expected.

| SPRAY SCHEDULE FOR THE CONTROL OF INSECT/PEST & DISEASES OF CITRUS FOR THE YEAR 2024 | | | | |
|---|-----------------|---|---|--|
| S. No. | Time/Tree Stage | Name of Chemical | Quantity of Chemical for 200 L of Water | Control of Diseases |
| 1. | 2. | 3. | 4. | 5. |
| 1. | January | Copper Oxychloride Or Streptomycin Sulphate 90% + Tetracycline Hydrochloride 10% w/w | 600 gm 3 gm/ 10 L of water | Canker |
| 2. | Feb | Dimethoate* or Monocrotophos* | 200 ml 200 ml | Aphid |
| 3. | March- April | Monocrotophos* | 200 ml | Aphid |
| 4. | May-June | Monocrotophos* or Dimethoate* Copper Oxychloride or Streptomycin Sulphate 90% + Tetracycline Hydrochloride 10% w/w | 200 ml 200 ml 600 gm 3 gm/ 10 L of water | Aphid Canker |
| 5. | July – August | Copper Oxychloride or Streptomycin Sulphate 90% + Tetracycline Hydrochloride 10% w/w | 600 gm 3 gm/ 10 L of water | Cut and burn the canker infested parts, and if the infestation is severe then repeat the spray at 15 days interval |
| 6. | Sept-Oct | Monocrotophos* | 200 ml | Aphid |

Note: - Do not spray any insecticide on flowering.

*** The pesticides are proposed to be banned viz. Dimethoate, Malathion & Monocrotophos by the Government vide Gazette Notification No. CG-DL-E-18052020-219423, Extraordinary Part-II- Section-3- Subsection (ii), dated 18th May 2020 regarding- Banning of Insecticides Order, 2020.**

RECOMMENDED BRAND NAMES OF PESTICIDES

| S. No. | Common Name | Brand Names |
|-----------------------|--|--|
| 1 | 2 | 3 |
| A. Pesticides: | | |
| 1. | Imidacloprid 17.8 SL | Confidor/Maharaja |
| 2. | Copper Oxychloride 50 WP | Blitox/Fytolan/Masstox/Copter/Trucop/Riva |
| 3. | Hexaconazole 5 EC | Contaf/ Hexzol /Sitara/ Titan /Glow /Envil |
| 4. | Wettable Sulphur 80 WP | Sulfex/Thiovit |
| 5. | Malathion 50EC* | Cythion/Massthion |
| 6. | Monocrotophos 36 EC* | Nuvacron/Masscron |
| 7. | Dimtheoate 30 EC* | Rogor |
| 8. | Oxy-demeton Methyl 25% EC | Metasystox |
| 9. | Streptomycin Sulphate 90% + Tetracycline Hydrachloride 10 % w/w | K-cycline |
| 10. | NAA Planofix | |

ENSURE SAFE USE OF PESTICIDES

Using pesticides safely depends on many things. Some of the most important factors include **selecting the appropriate product**, and using that product according to the **label directions**.

- Keep kids, pets and anyone non-familiar to the application out of the reach of pesticides while mixing and application.
- Be sure to wear protective clothing that will protect you while using pesticides. Protective clothing may include a long sleeve shirt, long pants, closed-toe shoes, gloves & goggles for eyes.
- Mix pesticides outdoors or in well-ventilated areas.
- Mix only what is advised.
- Be prepared for a pesticide spill. Have paper towels, sawdust or kitty litter, garbage bags, and non-absorbent gloves on hand to avoid direct contact during the spill. Avoid using excessive amounts of water, as this may only spread the pesticide and could be harmful to the environment.
- Read the first aid instructions on the label before using the product. Have the telephone number for the Poison Control Centre (1-800-222-1222) available in case you have additional questions.
- Remove personal items, such as toys, clothing, or tools from the spray area to avoid contamination.
- After using pesticides, wash your hands before eating.
- Dispose off the empty pesticide containers/bags properly.

Horticulture Information Service, Department of Horticulture, Himachal Pradesh, Shimla.

