



## January

1. Apply white lead paint/ Bordeaux paste to pruned cuts.
2. Remove snow from crotches of plants /trees if needed. In case of heavy snow fall go for shaking of limbs mechanically.
3. Bench grafting of nursery stocks.
4. Stratification of seed/nuts/stones for sowing purpose be completed.
5. Removal of mummified fruits to be continued.
6. Collection and destruction of Hairy caterpillar egg clusters.
7. Pruning of citrus plants to be started.
8. Spray tree trunks against lichens with 1% Caustic Soda Solution after every 3-4 years period.
9. Ensure orchard sanitation and proper drainage of water.
10. Burning of leaves of apple should be ensured.
11. Go for staking of budded or grafted nursery plants to avoid snow damage.



## February

1. Pruning operation to be completed and apply white lead paint or Bordeaux paste on cut surface with diameter exceeding 1.5-2.0 cm.
2. Spray tree trunks against lichens with 1% Caustic soda solution after every 3-4 years
3. Dormant spray may be resumed.
4. Grafting of nursery stocks and top-working of trees may be done wherever required, complete pollarding of almond trees.
5. Transplantation of deciduous plants be started and plantation of citrus to be continued.
6. Sow the stratified seeds in last week.
7. Pro-bloom spray of stone fruits and against almond diseases in particular.
8. Apply fertilizer to fruit trees in 1<sup>st</sup> fortnight schedule to early flowering cultivars  $\frac{1}{2}$  N (early CVS) P&K full dose.
9. Collection /destruction of egg clusters of Hairy caterpillar.
10. Correct Zn deficiency wherever indicated.
11. Transplantation of cuttings of various fruit trees like pomegranates, grape etc.
12. Preperparation of Nursery area for citrus seed sowing and arrangements to be made for procurement of citrus seeds.
13. Pruning of citrus to be completed.
14. Spray of copper fungicides and micro nutrients of citrus plantation to be completed.
15. Stake weak and lean plants, shake trees to remove snow immediately after heavy snow fall.
16. In case of up rooted trees consequent to heavy snowfall cover their roots with soil to prevent their desiccation



and subject the trees to heavy pruning before the resumption of active growth in spring.

17. In case of prolonged sub zero temperature Smudging in young orchards may be done by burning gross and other crop residues at 8-10 places for each hectare of orchard.
18. Provide proper drainage in orchards to drain off surface water.
19. Prune the canker affected twigs and scrap the dead bark from trunk and burn them and apply Bordeaux paste/chubattia or white lead paints on scraped surface.



## MARCH

1. Dormant spray to be completed by first fortnight.
2. Delay dormant spray to be completed by 3<sup>rd</sup> week of March i.e Spray Horticulture mineral Oil/diesel oil emulsion at green tip stage.
3. (a) Commence spray against scab as per spray schedule.  
(b) Spray against leaf spot and leaf curl in almond , cherry, Peach and Apricot
4. Transplantation of temperate and sub-tropical plants to be completed.
5. Completion of sowing of stratified seeds.
6. Complete top working of mother trees and grafting of nursery stock.
7. Pruning may be completed in higher altitudes.
8. Heading back of the last years budded stocks be completed.
9. Notching of old stocks to encourage new shoots.
10. Judicious fertilizer application be completed.
11. Drain out excessive water.
12. Spray against Anthracnose powdery and downy mildew of grapes.
13. Start sowing of citrus seeds, within one week of extraction.
14. Zinc sulphate 0.1% spray to citrus plantation.
15. Scrap canker bearing bark with sharp knife and apply copper oxy chloride 50wp paste on cut surface.



## APRIL

- Spray against apple scab/Alternaria as per spray schedule and also in respect of pear scab.
- Spray against mildew/leaf spot/leaf curl /blight as per recommendations.
- Prebloom treatments against blossom thrips/weevils.
- Treatment against emerging Hairy caterpillar/chafferbeetle .
- Staking of new plants.
- Remove off shoots / water sprouts of fruit trees/nursery stocks.
- Spray against mites of walnuts/grapes/pear/ apple.
- Basal treatment with soil insecticides against wooly aphid/mealy bugs.
- Ensure proper drainage.
- Budding of citrus fruit plants.
- Treatment against damping off to newly germinated/raised seedling stocks.
- Hoeing followed by mulching especially under Kareiva conditions may be done with cut grass or other crop residues. This will suppress the weed growth besides conserving moisture.
- Scrap dead bark and lichen from trees with bark scrapers and white wash fruit trees.



## MAY

- Spray against scab as per spray schedule.
- Spray against powdery mildew, leaf spot, shot hole leaf curl and blight.
- Hoeing of nursery plants, removal of off-shoots to be continued.
- White wash tree trunks with lime+copper sulphate where required.
- Treatment against Hairy caterpillar, wooly aphis, Green aphis, leaf roller.
- Burlapping against Hairy caterpillar.
- Mulching to be done wherever needed.
- Irrigate the orchards if need felt.
- Apply 2<sup>nd</sup> doze of (N) fertilizer by last week of month.
- Harvest ready stone fruits.
- Spray against Anthracnose disease of grapes.
- Sowing of green manuring crop.
- Irrigate the new plantings.
- Apply nitrogenous fertilizers to nursery stocks.
- To control pinhole / shoot hole borer, plaster the tree (Trunks, stems) with Mixture of carbryl 10% and clay in the ratio of 1:6.



## JUNE

1. Spraying against scab /alternaria to be continued.
2. Spraying against powdery mildew, leafspot, short hole, almond blight.
3. Spraying against Ist generation of sanjose –scale crawlers, apple moth, Hairycaterpillar, chaffer-Beetle, Anar butterfly.
4. Continue burlapping.
5. Staking of fruits laden branches.
6. Harvesting of stone fruits to continue.
7. Stone extraction of wild apricot and peach.
8. Start budding of stone fruit plants by 3<sup>rd</sup> week.
9. Clipping of powdery mildew effected twigs /leaves.
10. Removal of off Shoots /water sprouts to continue.
11. Apply nitrogenous fertilizer dose to nursery saplings well before budding.
12. Untieing of top worked trees/grafted material.
13. Spray against grape Anthracnose disease.
14. Irrigate new plantations.
15. Apply (N) to orchard areas if not done so far.
16. Make necessary arrangements for budwood material.
17. Irrigate nursery stocks after hoeing and weeding.
18. Earthing up of stocks grafted this year.
19. White washing of trees trunks if not done earlier especially in stone fruits to avoid sunburn and gummosis if not done earlier.
20. Mulching of fruit trees especially those grown under rainfed conditions for moisture conservation



## JULY

1. Spraying against scab /alternaria to continue.
2. Spraying against fungal disease as mentioned in the month of May and June to continue.
3. If required irrigate nursery stocks before budding and to orchard areas.
4. Budding of Nursery stocks of all fruit plants to continue.
5. Spray against sanjose-scale if needed.
6. Burlapping for Hairy caterpillar to continue.
7. Stone extraction of wild apricot and peach.
8. Hoeing and application of N fertilizers to nursery stocks to be completed.
9. Harvesting of late varieties of stone fruits and early varieties of pome fruits.
10. Wornout mulching to be replaced.
11. Summer purning of grapes.
12. Do not conduct sprays during high temperatures. Sprays can be conducted during morning /evening hours.
13. Stop spraying fruits 25 days before harvest.
14. Improve orchard sanitation.
15. Spray against fruit borer in pomegranate.
16. Monitor the population of Red mite on apple crop and spray with Acaricide/Summer oil if needed.



## **AUGUST**

1. Spraying against pests/disease particularly against speck fly and sooty blotch.
2. Summer spray against Sanjose –scale.
3. Budding of nursery stocks to continue.
4. Collect the buds material from the known mother plants.
5. Application of irrigation to nursery stocks and orchards if required.
6. Harvesting of almond crop to be completed.
7. Commencement of harvesting of mild season cultivars of apple and pear.
8. Burying of green manuring crops.
9. Sort and grade harvested lots under shade.
10. Collect the egg masses of Hairy caterpillar and destroy them.
11. Monitor Alternaria leaf spots and mite populations

## **SEPTEMBER**

1. Harvesting of mild season varieties of fruit to be continued.
2. Harvesting of walnut crop.
3. Irrigate the nursery areas wherever needed.
4. Post harvest spray against almond disease stone and remove blighted branches ,twigs from the affected trees and destroy them.
5. Budding can also be done in the first week of September in case the same has not been done earlier.



6. Collect the fallen fruits of pomegranate and destroy them to control borer in next season

## **OCTOBER**

1. Harvesting of fruits to be continued inclusive of chestnut.
2. Collection of crop and their storage.
3. Preparation of nursery land and application of F.Y.M and soil insecticides.
4. Arrangements for procurement of seeds/ nuts /stones suckers and seedling.
5. Procure seed nuts and stones for sowing from current year crop in order to ensure maximum seed viability and higher Germination percentage.
6. Campaign against rodents.
7. Layout, pit digging and filling up of pits with mixture of top soil and 20 kgs of FYM per pit in last week.

## **NOVEMBER**

1. Harvesting of late varieties of fruit to be completed.
2. Early dormant spray after complete leaf fall.
3. Commencement of sowing of seeds /nuts/stones.
4. Filling up of pit to be completed.
5. Vigorous campaign against Rodents to continue. Control measures against Rodents with recommend rodenticides be continued.
6. Leaf burning campaign as advance action for scab control to be started.
7. Ploughing /tractorization of orchard areas for clean cultivation.



8. Basal dose of soil insecticides against mealy bugs and wooly aphids.
9. Treatment against collar rot.
10. Start pruning of fruit in the 2<sup>nd</sup> fortnight.
11. Apply white lead paint Bordeaux paste /Chaubattia paste thinned with lin seed oil to cover and protect the wounds.

## DECEMBER

1. Continue sowing of seeds/nuts/stones for raising new stocks.
2. Training and pruning of fruit trees to continue
3. Procurement of cuttings of grape /pomegranate/quince, entrench for callus formation.
4. Application of F.Y.M to orchard area.
5. Keep the seeds for stratification if required.
6. Control measures against frost wherever needed.
7. Shake of snow from crotches/branches if necessary
8. Plantation of wind breaker.
9. Treatment against collar rot to continue.
10. Take appropriate measures to protect stored fruits against freezing injury
11. Clean water channels /drains and control measures against rodents to be continued.

### **Note:-**

1. While adopting above calendar of operations due regard to be kept for seasonal and field conditions besides other local climatic conditions.
2. All pruned infected material/mummified fruit and other infected material is needed to be destroyed.



3. For spraying and other details consult the technical experts invariably.
4. For further details contact with officers of Horticulture Department.

**For further details contact:-**

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