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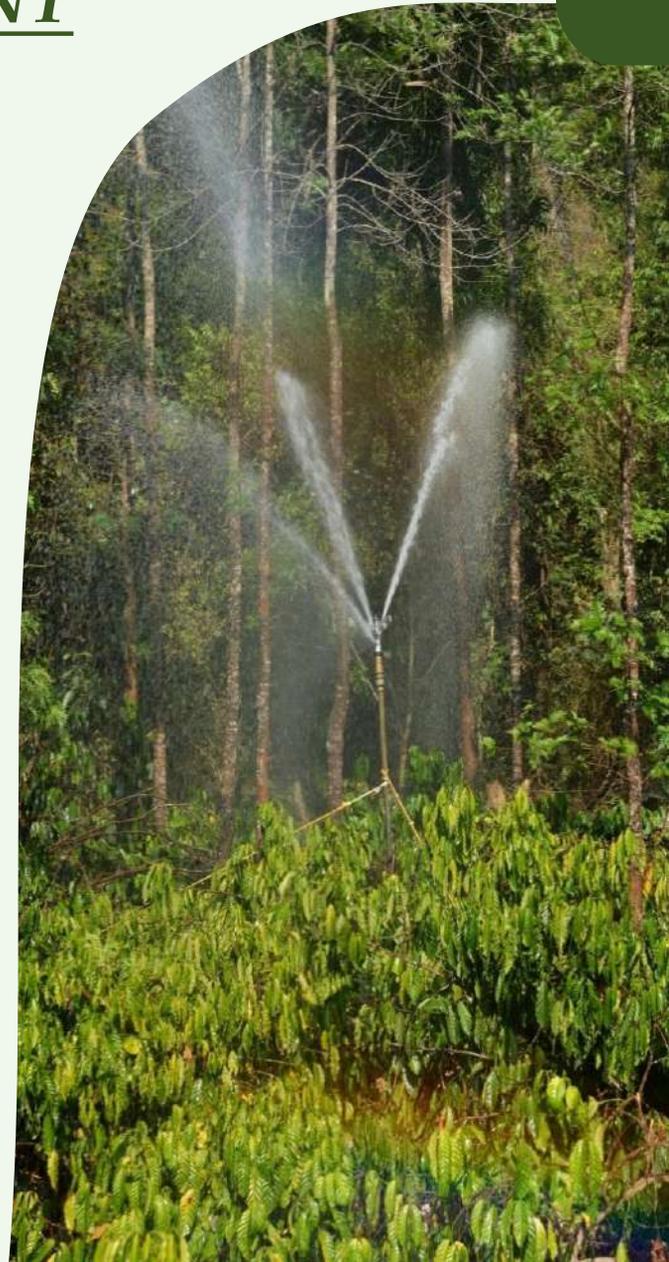
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CULTURAL PRACTICES - FEBRUARY 2026

Summary

Established Blocks

- ✓ Carry out blossom irrigation for Robusta coffee @ 38 - 40 mm per acre before 2nd fortnight of March and backing irrigation after 15 – 20 days of blossom irrigation of 25 mm
- ✓ Complete the light pruning in the Arabica coffee and initiate the pruning in Robusta coffee, 1 week after completion of harvest
- ✓ Do soil analysis for lime & fertilizer recommendation
- ✓ Correct soil pH by applying lime, based on the soil test values
- ✓ Complete tracing and disposal of coffee white stem borer infested plants in Arabica plantations before end of March
- ✓ Collect Robusta gleanings and left over fruits on the plants (clean harvest)
- ✓ Install Broca traps (10 per acre) to manage coffee berry borer infestation, if gleanings and left over collection have not been taken up
- ✓ Release parasitoid, *Leptomastix dactylopii* (5,000 to 10,000 per acre) in shoot mealybugs infested areas
- ✓ Drench Imidacloprid 17.8 SL @ 120 ml in 200 litres of water near root portion in new clearings, if root mealybug infestation is noticed
- ✓ Spray systemic fungicide hexaconazole 5% EC @ 400 ml/200 litres of water after the receipt of summer showers, if leaf rust is noticed in arabica coffee
- ✓ In nursery, drench the seed bed with carbendazim 50 WP @ 1g/litre or mancozeb 75 WP @ 2 g/litre at 30 days interval and avoid excessive watering to manage collar rot disease
- ✓ Complete harvesting and processing of Robusta coffee and tree coffee

Nursery

- ✓ Transplant button stage seedlings into polybags

New clearings

- ✓ Provide irrigation and hutting for young plants

AGRONOMICAL PRACTICES

In established plantations

- ✓ Carry out blossom irrigation for Robusta coffee @ 38 - 40 mm/acre before 2nd fortnight of March, if not done during last month. Before irrigation, it is advised to remove shot-hole borer affected branches, dead twigs and whippy woods
- ✓ Provide backing irrigation for Robusta @ 25 mm within the 15-20 days after blossom
- ✓ Complete light pruning in Arabica coffee
- ✓ Initiate pruning in Robusta coffee
- ✓ Fire path cleaning should be completed to avoid forest fire



Note

- ❑ If sufficient water source is available, it is advised to go for blossom, backing and summer irrigation period with an interval of 15 - 20 days
- ❑ If the water source is limited, it is better to go for blossom and backing irrigation only. Alternately, it is advised to provide only blossom irrigation with 40 to 50 mm under acute water deficit condition



Wherever backing irrigation is not possible, apply foliar application of nutrient mixture [Urea @ 1 kg, SSP @ 1 kg, MOP @ 750 g & Zinc sulphate @ 1 kg in 200 litres of water] along with plant growth regulator (Alpha Naphthyl Acetic Acid (NAA) 4.5% - 50 ml) 10 to 15 days after blossom.

Nursery

- ✓ Complete filling and arrangements of polybags in the nursery
- ✓ Transplant button or toppee stage seedlings to the polybags and irrigate coffee seedlings daily either in the morning or evening hours
- ✓ Nip the tap root and dip the seedlings in cow dung slurry to prevent drying prior to transplanting



For young plants

- ✓ Hutting should be provided to protect the plants from the exposure to sun
- ✓ Irrigate the young coffee plants @ 4 to 5 litres per plant per week for better establishment either with hose or sub soil injector
- ✓ Mulching of young plants is advised
- ✓ Apply 20 to 30 g of Ammophos (20:20:0:13) fertilizer to boost the seedling growth



Hutting with natural material



Hutting with artificial material

Replanting (or) New planting

- ✓ Line marking should be completed followed by opening of pits
- ✓ The size of the pit should be 45 cm³ (45cm x 45cm x 45cm)
- ✓ The pits should be exposed for sunlight at least 10-15 days after opening to ensure proper solarization of pits
- ✓ Pits should be closed with surrounding top soil by incorporating 2-3 kg of compost or well decomposed FYM, 20-30 g of Rock Phosphate



Pit size 45 cm³

SOIL SAMPLING IN COFFEE PLANTATION

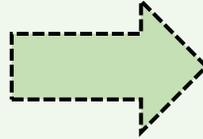
Method of collection of soil samples:

✓ Each sample should represent 2 ha of area



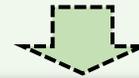
1

Collect soil sample from middle of 4 plants



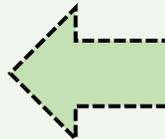
2

Remove all the litter; dig a hole of 22 cm (9”) depth using an auger or sabbal

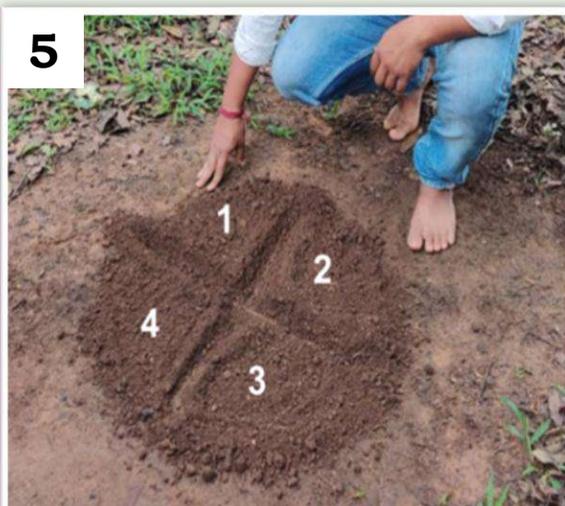
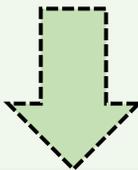


3

Scrape the soil around the hole from the top to the bottom all along the side

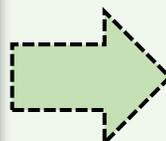


4 Collect & mix soil from 20 spots to get uniform mixture



5

Employ quartering technique to get 500g of composite sample



6

Pack sample in clean cloth / polythene bag, label & submit the sample for analysis

DO'S AND DON'TS:

- ✓ Ideal time for collecting soil samples is January – May
- ✓ Collect separate samples from problematic blocks
- ✓ In case of wet samples, dry them under shade
- ✓ Pack sample in clean cloth bag
- ✓ Label each sample with name of estate, block and date of collection
- ✓ Submit sample along with the information sheet
- ✓ Keep the record of the area sampled
- ✓ Leave a gap of 60 days from recently limed or manured blocks
- ✓ Do not collect samples during rainy season
- ✓ Do not use fertilizer bag to collect soil sample



SOIL ACIDITY MANAGEMENT IN COFFEE PLANTATION

Liming:

- ✓ Apply lime based on soil test recommendation (please refer the table in the test report) to improve the soil pH level
- ✓ Soil test should be done once in two years for very high rainfall areas and once in three years for low to medium rain fall areas
- ✓ Apply lime, if soil pH goes less than 6.1



- ✓ Use only the **Agricultural Lime** and **Dolomite**
- ✓ Don't apply **burnt lime** and **slaked lime** as it injures tender roots, due to its caustic action and affect the soil micro flora and fauna
- ✓ Analyse liming materials before applying to the field for its purity
- ✓ Use the liming materials which has the calcium carbonate equivalence (% NV) is more than 80%



- ✓ The ideal time for application of liming materials is November to March for North-East monsoon area.
- ✓ Apply lime when there is sufficient moisture (60% WHC) in the soil for quick reaction



SOIL NUTRIENT MANAGEMENT IN COFFEE PLANTATION



- ✓ Apply water soluble fertilizers during backing irrigation period, especially phosphorus as it helps in good fruit set and retention
- ✓ For irrigated blocks, apply fertilizers just prior to irrigation and should be properly mulched
- ✓ Apply the recommended quantity and types of fertilizer based on soil test report

Fertilizer	Quantity (kg)	Fertilizer	Quantity (kg)
1st combination		2nd combination	
Urea	45	Urea	65
DAP	50	SSP	144
MOP	50	MOP	50
Fertilizer mixture dosage	200 g per plant - planted at 8 x 8 feet	Fertilizer mixture dosage	325 g per plant - planted at 8 x 8 feet

- ☐ Provide additional foliar nutrient spray, 20 days after the blossom for better fruit retention, if not having backing irrigation facility

On-spot mobile soil testing campaign

- ✓ To create awareness among the coffee growers on the importance of soil test based nutrient management, Coffee Board is conducting On-Spot Mobile Soil Testing Campaign at village / hobli level
- ✓ The growers may utilize this facility to get their soil samples analyzed on payment basis and obtain lime recommendation on the spot
- ✓ For availing on-spot campaign in your area, the growers may contact nearest Extension officers (or) Division Head / Scientist of Soil Science and Agril. Chemistry Division, **CCRI**. Mobile no: **+91 9187501958** (WhatsApp)

CHARGES FOR ANALYTICAL SERVICES

Services	Charges per sample (Rs.)	
	Small & medium grower sector (<20 ha)	Large growers and corporate sector (>20 ha)
1. Soil Samples		
Analysis of sample for pH - Lime Recommendation	25/-	25-
Analysis of sample for pH, Organic carbon content, available N, P & K - Lime & fertilizer Recommendation	150/-	150/-
Analysis of sample for pH, Organic carbon content, available N, P & K, available Secondary (Ca, Mg, S) and Micronutrients content (Fe, Cu, Mn & Zn) - Lime & fertilizer Recommendation, Secondary & micronutrient recommendations	600/-	650/-
2. Leaf samples		
Analysis for major nutrient content (N, P & K)	800/-	850/-
Analysis for major nutrient content (N, P & K), available Secondary (Ca, Mg, S) and Micronutrients content (Fe, Cu, Mn & Zn)	1500/-	1600/-
3. Agro-Chemicals		
Liming materials (Agricultural Lime, Dolomite, Spray Lime, Shell lime, Minshakthi), Copper Sulphate and Single nutrient fertilizers (Urea, Single Super Phosphate, Rock Phosphate and Muriate of Potash)	500/-	550/-
Organic Manures - Analysis for pH, EC OC (%) and major nutrient content (N, P & K)	600/-	650/-
Organic Manures - Analysis for pH, EC OC (%) and major nutrient content (N, P & K), available Secondary (Ca, Mg, S) and Micronutrients content (Fe, Cu, Mn & Zn)	1100/-	1200/-
Chemical fertilizers (More than one nutrient)	1000/-	1100/-

Top grafting / Top working / Field grafting in Robusta Coffee

Top grafting or field grafting is an ideal method to convert old unproductive, off type plants into productive ones by grafting using a desirable scion. Since the root system is already well established, the top grafted plant grows vigorously and starts yielding within two years of grafting. It is one of the most important cost-effective technique to consolidate old blocks of robusta resulting in an increase in the yield. Every robusta planter should adopt top working for consolidation of robusta plots. The important steps to be followed in top grafting are as follows

Steps of top grafting	Month
1. Selection of elite mother plants	November to February
2. Collar pruning of off type plants	March to May (On receipt of 2 & more inches of rainfall)
3. Grafting	July to August
4. Graft maintenance & after care	September to October

- ❑ During March to May, the unproductive/ low yielding plants identified to be top grafted, should be collar pruned and should preferably be completed by May. The unproductive plants should be stumped at an angle of 45 degree at ¾ ft height from the ground level after receiving at least 2-3 inches of blossom showers. The cut ends should preferably face North-East direction to avoid afternoon sun scorch (Figure 2.)
- ❑ Bordeaux paste 10% (100 g CuSO₄ + 100 g Lime in one liter of water) should be applied on the cut surface to avoid fungal infection.
- ❑ Two to three suckers (Figure.3) should be allowed to grow for three to four months on the collar-pruned stump till they reach desired thickness (pencil thickness).

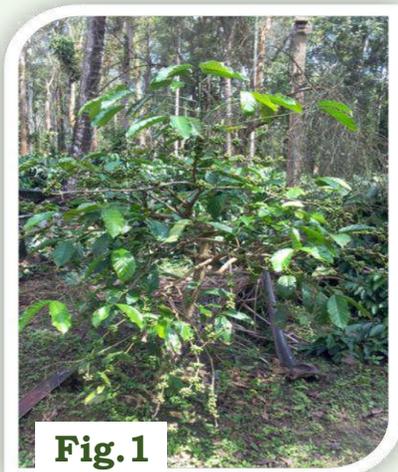


Fig. 1



Fig. 2



Fig. 3

Protecting established and young coffee plants from soil moisture stress

- ✓ With sufficient soil moisture status, complete the pruning, both in Arabica and Robusta if not done during February
- ✓ Provide blossom irrigation to the blocks where harvesting was delayed and it must be followed with the backing irrigation within 15 days without fail
- ✓ Provide shade and mulching for both young and crop bearing coffee plants and give high preference in the low and no shade blocks/areas
- ✓ Use all the leaf litter materials fallen in the estates road sides as a mulching material to conserve both soil and moisture
- ✓ For young coffee blocks without assured irrigation facility use sub-soil injector and irrigate the young coffee either in the early hours of morning or evening at the rate of 3-4 liters per plant per week
- ✓ All the barren, dried and wiffy wood with only one or two buds and causing self-shade branches must be removed

PEST MANAGEMENT

Management of coffee white stem borer (CWSB) in Arabica plantations

- ✓ Tracing, uprooting and disposal of infested plants should be completed before end of March
- ✓ Dispose uprooted stems by burning to kill CWSB stages inside or immerse in water for 10 days and the same can be used for other purpose
- ✓ Less infested plants can be wrapped with non-woven fabric (1mm thickness). Wrap the plants from the ground portion including thick primaries without leaving any gaps for egg laying
- ✓ Scrub the loose scaly bark on the main stem and thick primaries using coir gloves

Stems wrapped with non-woven fabric



(or)

- ✓ Spray 10% lime along with 200 ml DDL Fevicol and 200 ml Silwet on the main stems and thick primaries to seal the cracks and crevices and to prevent egg laying

Management of Coffee Berry Borer

- ✓ Collect gleanings and left over berries and dispose
- ✓ Install Broca traps (10 per acre) in blocks where gleanings and left over berries are not removed
- ✓ Install Broca traps around drying yard, and refill lure and water in the traps if necessary



Broca trap

Management of Shot Hole Borer in Robusta plantations

- ✓ SHB infested twigs can be pruned below the hole and dispose to prevent further spreading
- ✓ Xycom traps (12 nos per acre) can be installed to trap the adult SHB, which helps to reduce the SHB population



Xycom trap

Management of mealybug in Robusta plantations

- ✓ If root mealybug infestation is noticed in new clearings, drench Imidacloprid 17.8 SL @ 120 ml in 200 L of water near root portion
- ✓ If shoot mealybugs are present, release parasitoid, *Leptomastix dactylopii* (10,000 per acre in two or three splits)
- ✓ Remove ant nest from the field/from the plants



Root Mealy bug



Shoot mealybugs



Leptomastix dactylopii



Ant nest in coffee

Maintenance of Apiaries (Beekeeping)



- ✓ If any colony is divided to make multiple colonies, provide artificial feed to all those divided colonies for sustenance and development
- ✓ The frames in the brood chambers are completely developed, place super chambers with frames (frames with foundation sheets for easy comb development). Once the combs are developed, bees store honey inside
- ✓ Once the frames of the super chambers are filled with honey it can be harvested using extractor. After filling honey, each cell of the comb is capped / sealed by bees and this indicates the honey is mature and ready to harvest
- ✓ Clean the bottom boards of the boxes to remove debris and developmental stages of wax moth (once in ten days) using hive tools and brush

DISEASE MANAGEMENT

Coffee leaf rust disease

- ❑ For the susceptible arabica cultivars like Sln.3 (S.795) or Cauvery, if the leaf rust is noticed, take up spraying of systemic fungicide hexaconazole 5% EC @ 400 ml/200 L of water after the receipt of summer showers.

Collar rot disease

Symptoms

- ❑ In primary nursery bed, coffee seedlings show brownish dis-colouration on the stem near the ground level or collar region leading to rotting of the tissue and death of seedlings.

Management

- ❑ Remove the infected seedlings, drench the seed bed with carbendazim 50 WP @ 1g /L or mancozeb 75 WP @ 2.0 g/L at 30 days interval and avoid excessive watering.



Coffee leaf rust disease



Collar rot disease

POST HARVEST MANAGEMENT

1. In case of on farm storage of processed coffees (parchment /cherry), pack the processed coffees in clean gunny bags and store them in a well-ventilated godown over the wooden dunnage.
2. Arrange the coffee bags at least one foot away from godown walls.
3. Do not arrange/store coffee bags up to the roof top of the godown. There should be enough air space between the top most layer of the coffee stack and roof of the godown (ideally not less than 1/3rd of stack height).
4. Do not store the coffee samples at the estate level for long duration (beyond May), as the wet monsoon condition prevailing in plantation area from June to October are not ideal for storage.
5. Those estates who treat coffee effluent using various lagoons (equalization/neutralization tank, anaerobic lagoon, aerobic lagoon and settling tank), effluent sample may be drawn from the settling tank and test for the BOD level before use them for irrigation purpose. Ideally, the BOD level should be around 100 ppm for irrigation purpose within the plantation.



Storing of dry parchment on wooden dunnage

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