

Phase IV Status Report

On

**Crop Kc, Water Requirement of *Rabi* Gram along with
Suitable Shading Factors with different Irrigation
Practices**

in

**“Determination of Crop Coefficients for Major Crops by
Lysimetric Studies”**

at

Mahatma Phule Krishi Vidyapeeth, Rahuri

Title of the project : Determination of Crop Coefficients for Major Crops by Lysimetric Studies

Location : CAAST-CSAWM Climate Smart Research Block, Mahatma Phule Krishi Vidyapeeth, Rahuri

Duration : Three years (2020-2023)

Total Outlay : Rs. 31.43 Lakhs (Rs. Thirty one lakh fourty three thousand only)

Principal Investigator : Dr. A. A. Atre, Professor of SWCE and CAAST-CSAWM, Member and Dr. ASCAE&T, MPKV, Rahuri

Co-Principal Investigator : Dr. M. G. Shinde, Professor of SWCE and Co-PI CAAST- CSAWM, MPKV, Rahuri
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Coordinator for the project for three universities (MPKV, Rahuri; Dr. PDKV, Akola and VNMKV, Parbhani) : Dr. S. D. Gorantiwar, Head, Dept. of Agril. Engg. And PI CAAST-CSAWM and, MPKV, Rahuri

1. Introduction

The Project is being executed at Mahatma Phule Krishi Vidyapeeth, Rahuri. This project is undertaken for determination of crop coefficients of *Kharif* Sesame, *Rabi* Gram and Summer Fodder Bajra. In the *Rabi* season immediately after installation of only one Lysimeter, Gram was sown on 14th December, 2021 in the Lysimeter and surrounding area of 0.5 ha. The table 1 below shows the various details of sown variety of Gram ‘Phule Vikram’.

Table No. 1. Details of sown variety of Gram ‘Phule Vikram’.

| | |
|--|--|
| Scientific Name | <i>Cicer arietinum</i> |
| Variety | Phule Vikram |
| Release year | 2016 |
| Name of Institute / University | Mahatma Phule Krishi Vidyapeeth, Rahuri |
| Soil type | Well drained, medium to deep soils having 45 to 60 cm depth. |
| Climate | Minimum temperature 10-15°C, Maximum temperature 25 to 30°C Rainfall 750 to 1000 mm Humidity 21-41 %. |
| Optimum Sowing Time / Planting period | Rainfed crop: 20th Sept to 10 Oct Irrigated crop: 20th Oct to 10 Nov Late sown: First week of December Duration: 105-110 Days |
| Crop Spacing | 30 × 10 cm |
| Seed Rate (Per Acre) Seed rate: | 75 kg/ha |
| Productivity | Rainfed: Trial Yield: 16-18, Average yield: 16.00 q/ha Irrigated: Trial Yield: 40-42, Average yield: 22.00 q/ha Late sown: Trial Yield: 22-24, Average yield: 21.00 q/ha |
| Characters / features | Tall growth habit hence suitable for mechanical harvesting, medium size yellowish brown seeds, wilt resistant, suitable for rainfed, irrigated and late sown conditions, Released for Maharashtra. |

2. Reference Crop Evapotranspiration ETr Estimation by Penman-Monteith Method

There are number of empirical methods/ formulae for estimation of reference crop evapotranspiration such as Thornthwaite method, Blaney-Criddle method, Penman-Monteith method, etc. Based on work of number of scientists and conclusions from their research, FAO Penman-Monteith method is identified as standard method for estimation of ETr compared with other methods. The following formula is used for estimation of ETr.

$$ET_r = \frac{0.408\Delta(R_n - G) + \gamma \frac{900}{T + 273} u_2 (e_s - e_a)}{\Delta + \gamma(1 + 0.34u_2)} \quad \text{Eqn... (1)}$$

Where,

ET_r = reference evapotranspiration [mm/day],

R_n = net radiation at the crop surface [MJ/m² day],

G = soil heat flux density [MJ/ m² day],

T = Mean daily air temperature at 2 m height [°C],

u_2 = wind speed at 2 m height [m/s],

e_s = saturation vapour pressure [kPa],

e_a = actual vapour pressure [kPa],

$e_s - e_a$ = saturation vapour pressure deficit [kPa],

D = slope vapour pressure curve [kPa/ °C],

g = psychrometric constant [kPa /°C].

Daily weather data on minimum and maximum temperature, minimum and maximum relative humidity, bright sunshine hours and wind speed at 2 m height required to compute the parameters listed above are daily collected from IMD Observatory installed at Experimental Field of Department of Irrigation Water Management, Mahatma Phule Krishi Vidyapeeth, Rahuri. The required weather data and values of constants were given as input to Phule Jal (web-based application to calculate reference evapotranspiration) based on detail methodology and equations involved to calculate reference evapotranspiration by Penman-Monteith method are given by Allen *et al.*, 1998. The table No. 2 shows input weather data required along with values of constant recommended in FAO Irrigation and Drainage Paper No. 56 in the absence of local values to calculate these parameters. Values of reference evapotranspiration in the crop duration from 14-12-2021 to 04-04-2022 varied between 1.3 to 5.43 mm. The daily variation of ETr during crop period is shown in figure 1.

Table No. 2. Input data and constants required to calculate parameters involved in the calculation of reference evapotranspiration.

| Sr. No | Parameter | Weather data as input | Values of constants as input in the absence of local data |
|--------|-----------|---|--|
| 1 | R_n | R_a = Extra-terrestrial radiation | $\alpha = 0.23$, $a_s = 0.25$ and $b_s = 0.5$ |
| 2 | G | Mean Temperature | Soil heat capacity, $c_s = 2.1 \text{ MJ m}^{-3} \text{ }^\circ\text{C}^{-1}$ and Effective soil depth, $\Delta Z = 0.2\text{m}$ |
| 3 | μ_2 | Wind speed at 2m height | - |
| 4 | T | Min. and Max. Temperature | - |
| 5 | e_s | Min., Max. and mean Temperature | - |
| 6 | e_a | Min., Max. Temperature and Min., Max. Humidity. | Air humidity correction factory = $a-b\sqrt{e_a}$ where, $a= 0.34$ and $b= 0.14$ |
| 7 | Δ | Mean temperature | |

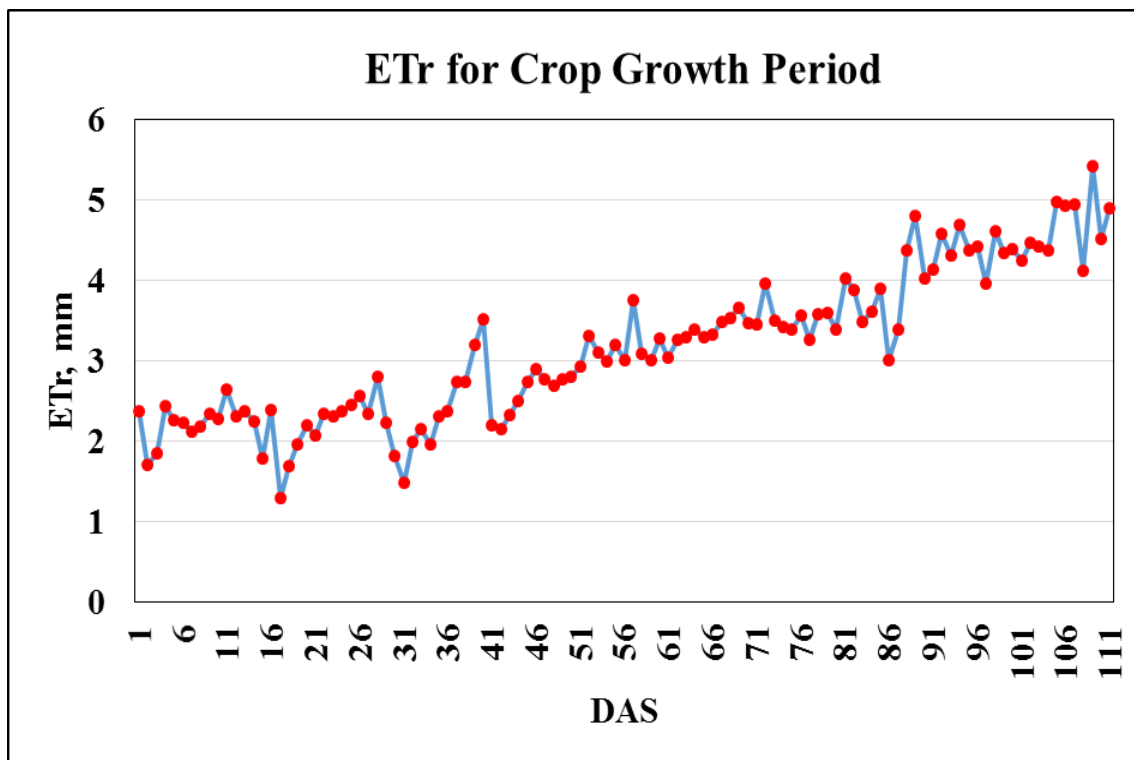


Figure No. 1: Daily variation of ETr during crop growth period of Gram

3. Crop Coefficient (K_c) of Gram

The crop coefficient K_c, an important item for evaluating crop evapotranspiration, is defined as the ratio of actual crop evapotranspiration to reference crop evapotranspiration. The weekly value of crop coefficients was computed as the ratio of weekly crop evapotranspiration and weekly reference evapotranspiration. Weighing lysimeters measure crop water used by measuring the change in mass of an isolated volume of soil. While irrigation and precipitation add water and increase the weight of the soil volume, drainage and ET removes water therefore decrease lysimeter weight.

$$ET_c = P + I - \Delta S - D \quad \text{Eqn... (2)}$$

Where,

- P = Precipitation, mm
- I = Irrigation, mm
- ΔS = Change in water storage, mm
- D = Drainage, mm

Daily variation of crop water requirement (mm) derived from lysimeter is shown in the figure 2. Weekly crop evapotranspiration was obtained by addition of daily crop evapotranspiration (mm) from lysimeter. One lysimeter was used to measure the crop evapotranspiration to obtain the crop coefficient values. The weekly value of crop coefficients was computed as the ratio of weekly crop evapotranspiration and weekly reference evapotranspiration. Table 3 below shows weekly crop water requirement and reference crop evapotranspiration for crop weeks of Gram and K_c values computed using them.

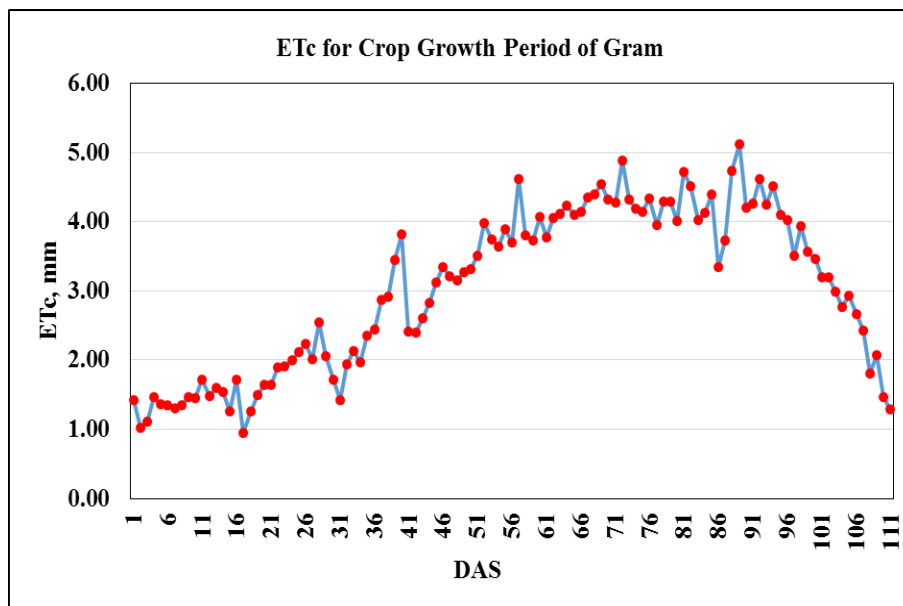


Figure No. 2: Daily variation of ET_c of Gram obtained from Lysimeter

Table No. 3: Weekly ETc, ETr and Kc values of Gram during 14/12/2021 and 04/04/2022.

| CW | Weekly Crop Water Requirement, ETc (mm) | Reference Crop Evapotranspiration, ETr (mm) | Local Kc Values |
|------|---|---|-----------------|
| CW1 | 9.1 | 15.01 | 0.606 |
| CW2 | 10.6 | 16.38 | 0.648 |
| CW3 | 10.0 | 13.43 | 0.742 |
| CW4 | 14.7 | 17.20 | 0.856 |
| CW5 | 13.6 | 13.98 | 0.973 |
| CW6 | 20.3 | 18.95 | 1.071 |
| CW7 | 21.6 | 18.70 | 1.152 |
| CW8 | 25.8 | 21.37 | 1.208 |
| CW9 | 28.2 | 22.75 | 1.239 |
| CW10 | 30.1 | 24.18 | 1.245 |
| CW11 | 30.1 | 24.58 | 1.225 |
| CW12 | 30.0 | 25.58 | 1.172 |
| CW13 | 29.8 | 27.66 | 1.078 |
| CW14 | 29.0 | 30.99 | 0.935 |
| CW15 | 22.1 | 31.25 | 0.707 |
| CW16 | 11.7 | 28.87 | 0.407 |

The computed Kc values for *Rabi* Gram during initial, development, mid and end stage were 0.66, 1.05, 1.20 and 0.68 respectively. Whereas stagewise K_c values calculated according to FAO-56 are 0.40, 0.70, 1.00 and 0.66 for respective stages. The average weekly K_c values for *Rabi* Gram ranged between 0.60 (initial stage) and 1.245 (mid stage) during its crop growth period. The maximum values of crop coefficient were estimated during mid-stage mainly because of higher canopy. Figure 3 represents the weekly K_c values during crop growth period of Gram.

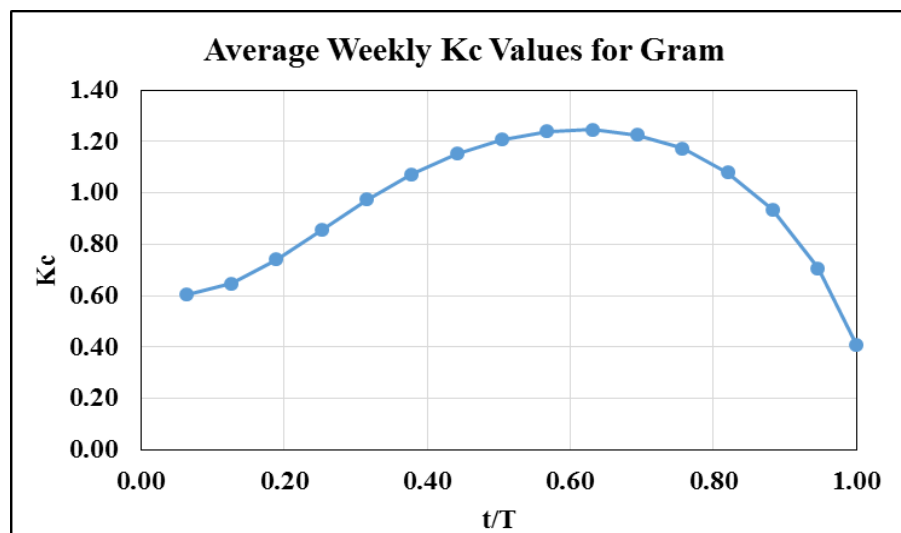


Figure No. 3: Weekly Kc values of Gram during crop growth period

Table No. 4: Weekly local and FAO derived Kc values of Gram

| CW | Weekly Kc from lysimeter | Crop growth stages | Stage wise Local Kc Values | Stage Wise FAO Kc Values |
|----|--------------------------|----------------------------|----------------------------|--------------------------|
| 1 | 0.603 | Initial – 20 days | 0.66 | 0.40 |
| 2 | 0.648 | | | |
| 3 | 0.742 | | | |
| 4 | 0.856 | Crop development – 35 days | 1.05 | 0.70 |
| 5 | 0.973 | | | |
| 6 | 1.071 | | | |
| 7 | 1.152 | | | |
| 8 | 1.208 | | | |
| 9 | 1.239 | Mid-season – 35 days | 1.20 | 1.00 |
| 10 | 1.245 | | | |
| 11 | 1.225 | | | |
| 12 | 1.172 | | | |
| 13 | 1.078 | | | |
| 14 | 0.935 | Late season – 20 days | 0.68 | 0.66 |
| 15 | 0.707 | | | |
| 16 | 0.407 | | | |

Development of Polynomial Equation to derive Daily Kc

The Kc values was estimated for gram as the ratio of crop evapotranspiration (ET_c) under no water stress condition to the reference evapotranspiration (ET_r) estimated by Penman Monteith method over a specified period.

$$K_c = ET_c / ET_r \quad \text{Eqn...}(3)$$

The polynomial equation of following orders was fitted with K_c as the dependent variables and (t/T) as the independent variables. These are:

$$Kc_t = a_0 \left(\frac{t}{T}\right)^0 + a_1 \left(\frac{t}{T}\right)^1 + a_2 \left(\frac{t}{T}\right)^2 + a_3 \left(\frac{t}{T}\right)^3$$

$$Kc_t = a_0 \left(\frac{t}{T}\right)^0 + a_1 \left(\frac{t}{T}\right)^1 + a_2 \left(\frac{t}{T}\right)^2 + a_3 \left(\frac{t}{T}\right)^3 + a_4 \left(\frac{t}{T}\right)^4$$

$$Kc_t = a_0 \left(\frac{t}{T}\right)^0 + a_1 \left(\frac{t}{T}\right)^1 + a_2 \left(\frac{t}{T}\right)^2 + a_3 \left(\frac{t}{T}\right)^3 + a_4 \left(\frac{t}{T}\right)^4 + a_5 \left(\frac{t}{T}\right)^5$$

Where,

Kc_t =crop coefficient of tth day.

a₀, a₁, a₂.....= constants of equations.

t = day considered.

T = total period of crop growth from sowing to harvesting (days)

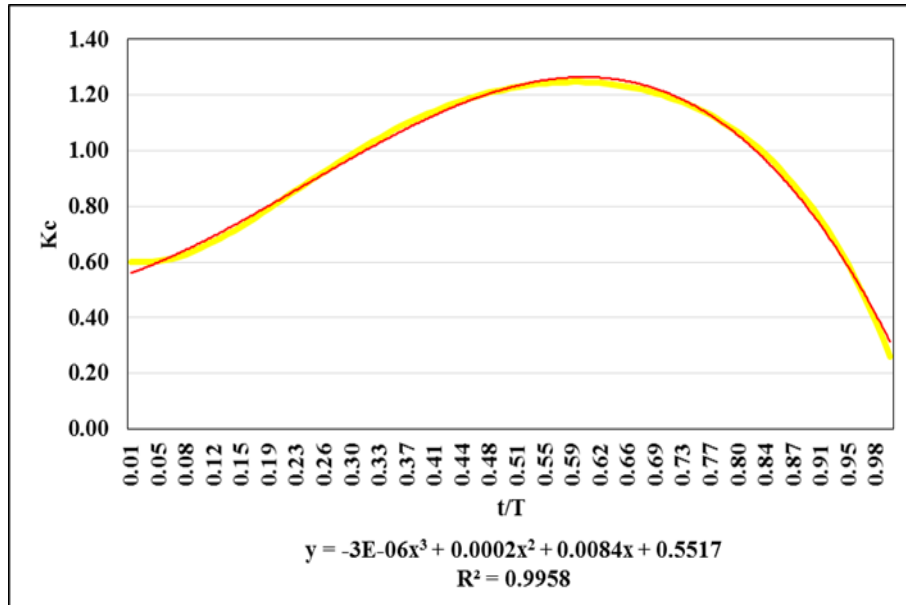


Figure No. 4. Polynomial Curve obtained from weekly K_c values

Equation No. 5 given below also shown in figure 4 is obtained from weekly K_c values against 't/T' to derive daily K_c values with coefficient of determination (R^2) equal to 0.99. The daily values of crop coefficient of *Rabi* Gram are given in Appendix A.

$$y = -3E-06x^3 + 0.0002x^2 + 0.0084x + 0.5517 \quad \text{Eqn... (5)}$$

Figure 5 shows the comparison between polynomial curve obtained from local and FAO K_c values. Clearly the local K_c values greater than FAO K_c values which indicated higher water requirement of *Rabi* Gram considering local conditions.

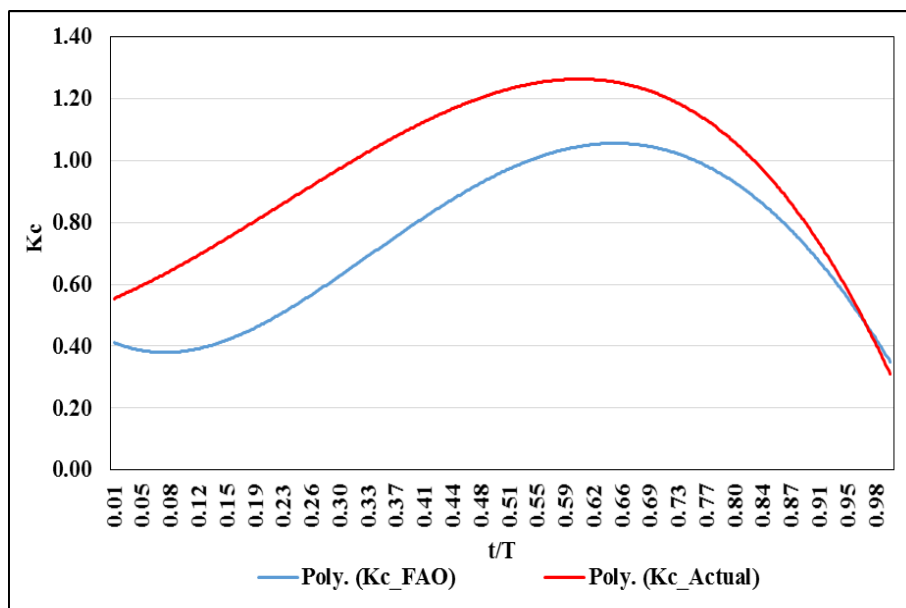


Figure 5. Comparison between polynomial curve obtained from local and FAO derived K_c values

4. Irrigation Water Requirement using locally derived K_c values for Gram for Western Maharashtra Region

To calculate crop and irrigation water requirement using weekly K_c values for western Maharashtra, observed meteorological data from 22 agricultural research stations (listed below in table No. 5) under jurisdiction of MPKV, Rahuri was obtained from Head, Department of Agricultural Meteorology, College of Agriculture, Pune.

The data obtained from these stations was checked and there was lack of uniformity in data in terms of six weather parameters required for calculation of Reference Evapotranspiration by Penman-Monteith method. As the data of minimum and maximum temperature was available for these station, Hergreaves-Samani method was chosen for calculating reference evapotranspiration across these location. Reference evapotranspiration was calculated using Phule Jal using minimum and maximum temperature and latitude of these stations. The detail methodology for calculation of reference evapotranspiration in FAO Irrigation and Drainage Paper No. 56

After the calculations of reference evapotranspiration weekly values were interpolated over entire western Maharashtra by Inverse Distance Weight (IDW) method using ArcMap which were then multiplied by respective crop coefficients obtained from lysimeter. As a result weekly maps of crop water requirement were produced for Western Maharashtra from which taluka wise weekly crop water requirement was extracted using Geo-statistical Analysis tool in ArcMap. As Rabi Gram is close growing row crop suitable shading factor is considered as 1.

Taluka wise weekly crop water requirement obtained from ArcMap is converted into irrigation water requirement by surface irrigation at 40, 50 and 60 per cent efficiency, by sprinkler irrigation at 80 and 85 per cent efficiency and by drip irrigation at 90 and 95 per cent efficiency. Taluka wise crop and irrigation water requirement of 10 districts of Western Maharashtra *Viz.* Ahmednagar, Dhule, Jalgaon, Kolhapur, Nandurbar, Nashik, Pune, Sangli, Satara and Solapur is tabulated in Appendix B.

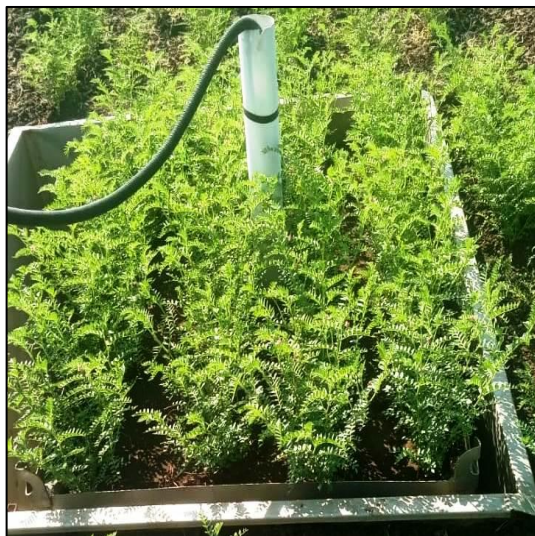
Table No. 5: List of Agricultural Research Station from which meteorological data was obtained

| Sr. No. | Name of Agricultural Research Station and Location | Zone |
|---------|---|----------------------|
| 1. | Zonal Agricultural Research Station, Shenda Park, Kolhapur | Sub-Montane Zone |
| 2. | Agricultural Research Station, Karad | |
| 3. | Agricultural Research Station, Vadgaon Maval | |
| 4. | Agricultural Research Station, Gadhinglaj | |
| 5. | Zonal Agricultural Research Station, Igatpuri Dist. Nashik | Western Ghat Zone |
| 6. | Agricultural Research Station, Lonavala Dist. Pune | |
| 7. | Agricultural Research Station, Radhanagari, Dist. Kolhapur | |
| 8. | Regional Wheat Rust Research Station, Mahabaleshwar, Dist. Satara | Plain Zone |
| 9. | Zonal Agricultural Research Station, Ganeshkhind, Pune | |
| 10. | Agriculture Research Station Niphad, Dist. Nashik | |
| 11. | Agriculture Research Station Kasbe Digraj, Dist. Sangli | |
| 12. | Agriculture Research Station, Pimpalgaon Baswant, Dist. Nashik | |
| 13. | Agriculture College Pune | Scarcity Zone |
| 14. | Zonal Agriculture Research Station, Solapur | |
| 15. | Central Sugarcane Research Station, Padegaon | |
| 16. | Agriculture Research Station, Mohol | |
| 17. | Pulse and Oilseed Research and Training Center, Pandharpur | |
| 18. | Agriculture Research Station, Jeur | |
| 19. | Agriculture Research Station, Savalvihir | |
| 20. | Agriculture Research Station, Chas | |
| 21. | Agriculture Research Station, Dhule | |
| 22. | Oil Seed Research Station, Jalgaon | Central Plateau Zone |

5. Photographs taken during experimental period from 14th Dec, 2021 to 4th April, 2022.



Gram plants in Lysimeter at initial growth stage



Gram Crop at development stage



View of Gram Field around Lysimeter



General View of Gram Field



Gram Crop at harvesting stage around lysimeter



Gram Crop at harvesting stage in and around lysimeter

6. Yield Data of *Rabi* Gram

Table No. 6: Yield data of *Rabi* Gram in Lysimeter and surrounding field

| Particular | Production | Area | Yield per unit area |
|-------------------------------------|------------|---------------------|---------------------|
| Lysimeter Yield | 310 gram | 2.25 m ² | 13.77 q/ha |
| Yield from Surrounding Field | 3.3q | 5000 m ² | 6.60 q/ha |

7. Expenditure statement till 31st December, 2022

Table No. 7: Expenditure statement till 31st December, 2022

| Sr. No. | Description | Amount, Rs. |
|----------|--|------------------|
| 1 | Human Resources | |
| a) | SRF | 155760.00 |
| b) | Field Assistant | 90323.00 |
| | Subtotal | 246083.00 |
| 2 | Recurrent Expenditure | |
| a) | Farm input | 15481.00 |
| b) | Travelling | 0.00 |
| c) | Stationery and other contingencies | 8740.00 |
| d) | Contractual labours | 88864.00 |
| | Subtotal | 113085.00 |
| | Total Expenditure till December, 2022 | 359168.00 |
| | Sanctioned Grant | 573063.00 |
| | Balance | 213895.00 |

Appendix – A

Daily K_c Values for *Rabi* Gram

| Day | K _c | Day | K _c | Day | K _c | Day | K _c |
|-----|----------------|-----|----------------|-----|----------------|-----|----------------|
| 1 | 0.599 | 31 | 0.957 | 61 | 1.242 | 91 | 1.028 |
| 2 | 0.600 | 32 | 0.973 | 62 | 1.244 | 92 | 1.008 |
| 3 | 0.600 | 33 | 0.988 | 63 | 1.246 | 93 | 0.986 |
| 4 | 0.600 | 34 | 1.003 | 64 | 1.247 | 94 | 0.962 |
| 5 | 0.603 | 35 | 1.018 | 65 | 1.247 | 95 | 0.937 |
| 6 | 0.607 | 36 | 1.032 | 66 | 1.247 | 96 | 0.911 |
| 7 | 0.613 | 37 | 1.046 | 67 | 1.246 | 97 | 0.883 |
| 8 | 0.620 | 38 | 1.060 | 68 | 1.245 | 98 | 0.853 |
| 9 | 0.628 | 39 | 1.074 | 69 | 1.243 | 99 | 0.821 |
| 10 | 0.638 | 40 | 1.085 | 70 | 1.241 | 100 | 0.788 |
| 11 | 0.649 | 41 | 1.098 | 71 | 1.238 | 101 | 0.751 |
| 12 | 0.661 | 42 | 1.110 | 72 | 1.235 | 102 | 0.714 |
| 13 | 0.672 | 43 | 1.121 | 73 | 1.230 | 103 | 0.675 |
| 14 | 0.686 | 44 | 1.132 | 74 | 1.226 | 104 | 0.632 |
| 15 | 0.700 | 45 | 1.142 | 75 | 1.221 | 105 | 0.588 |
| 16 | 0.714 | 46 | 1.152 | 76 | 1.214 | 106 | 0.541 |
| 17 | 0.729 | 47 | 1.162 | 77 | 1.208 | 107 | 0.491 |
| 18 | 0.744 | 48 | 1.171 | 78 | 1.200 | 108 | 0.438 |
| 19 | 0.760 | 49 | 1.179 | 79 | 1.192 | 109 | 0.383 |
| 20 | 0.776 | 50 | 1.187 | 80 | 1.184 | 110 | 0.324 |
| 21 | 0.792 | 51 | 1.195 | 81 | 1.174 | 111 | 0.262 |
| 22 | 0.809 | 52 | 1.202 | 82 | 1.164 | | |
| 23 | 0.826 | 53 | 1.209 | 83 | 1.153 | | |
| 24 | 0.842 | 54 | 1.215 | 84 | 1.141 | | |
| 25 | 0.859 | 55 | 1.219 | 85 | 1.128 | | |
| 26 | 0.876 | 56 | 1.225 | 86 | 1.114 | | |
| 27 | 0.893 | 57 | 1.229 | 87 | 1.099 | | |
| 28 | 0.909 | 58 | 1.233 | 88 | 1.083 | | |
| 29 | 0.925 | 59 | 1.237 | 89 | 1.066 | | |
| 30 | 0.941 | 60 | 1.240 | 90 | 1.048 | | |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods Ignoring Effective Rainfall of Rabi Gram in Ahmednagar District

Table No. B-1: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 13.9 | 13.7 | 16.3 | 17.3 | 24.4 | 28.8 | 35.1 | 35.9 | 36.7 | 44.1 | 41.0 | 37.4 | 39.8 | 35.3 | 29.5 | 17.3 | 466.4 |
| Shevgaon | 14.0 | 15.1 | 16.5 | 20.1 | 24.0 | 31.0 | 33.8 | 36.8 | 42.2 | 44.6 | 42.2 | 44.7 | 44.1 | 40.5 | 32.5 | 18.3 | 500.3 |
| Pathardi | 14.1 | 15.0 | 16.6 | 20.0 | 24.1 | 30.9 | 34.0 | 36.8 | 41.8 | 44.6 | 42.2 | 44.1 | 43.8 | 40.1 | 32.1 | 18.2 | 498.4 |
| Parner | 14.0 | 14.3 | 16.5 | 18.6 | 24.3 | 29.8 | 34.7 | 36.4 | 39.1 | 44.4 | 41.7 | 40.6 | 41.7 | 37.4 | 30.6 | 17.6 | 481.7 |
| Sangamner | 13.0 | 15.0 | 16.0 | 20.3 | 23.1 | 30.7 | 32.8 | 36.3 | 42.9 | 44.0 | 41.7 | 45.7 | 45.0 | 41.2 | 33.2 | 18.6 | 499.6 |
| Kopargaon | 10.6 | 14.4 | 14.9 | 19.3 | 21.5 | 29.5 | 30.4 | 34.7 | 42.4 | 41.4 | 39.8 | 44.3 | 44.5 | 39.7 | 32.9 | 18.2 | 478.6 |
| Akole | 13.7 | 15.2 | 16.4 | 20.8 | 23.7 | 31.1 | 33.7 | 37.0 | 43.5 | 45.1 | 42.6 | 46.7 | 45.4 | 42.0 | 33.4 | 18.8 | 508.9 |
| Shrirampur | 12.7 | 15.0 | 15.6 | 19.9 | 22.5 | 30.3 | 31.8 | 35.8 | 42.7 | 43.1 | 40.9 | 44.8 | 44.6 | 40.4 | 32.9 | 18.3 | 491.1 |
| Newasa | 13.6 | 15.1 | 16.0 | 20.0 | 23.2 | 30.6 | 32.7 | 36.3 | 42.5 | 43.9 | 41.5 | 44.7 | 44.3 | 40.5 | 32.7 | 18.3 | 496.0 |
| Rahata | 10.6 | 14.4 | 14.9 | 19.3 | 21.5 | 29.5 | 30.3 | 34.6 | 42.3 | 41.3 | 39.8 | 44.2 | 44.4 | 39.5 | 32.8 | 18.1 | 477.5 |
| Rahuri | 14.3 | 15.8 | 15.7 | 20.5 | 22.7 | 31.0 | 31.6 | 36.3 | 43.8 | 43.9 | 41.0 | 45.5 | 45.2 | 41.2 | 33.0 | 18.1 | 499.7 |
| Shrigonda | 14.5 | 15.0 | 17.2 | 20.1 | 24.9 | 31.1 | 35.1 | 37.3 | 41.4 | 45.0 | 43.2 | 44.2 | 43.3 | 39.7 | 31.3 | 18.0 | 501.3 |
| karjat | 14.8 | 15.4 | 17.6 | 20.8 | 25.3 | 31.6 | 35.2 | 37.6 | 42.1 | 45.2 | 43.9 | 45.6 | 44.3 | 40.5 | 31.5 | 18.1 | 509.2 |
| Jamkhed | 14.6 | 15.5 | 17.5 | 20.5 | 24.6 | 31.6 | 35.0 | 37.6 | 42.2 | 45.1 | 44.5 | 45.4 | 44.2 | 40.6 | 31.6 | 18.4 | 508.9 |

Table No. B-2: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 34.8 | 34.2 | 40.6 | 43.4 | 60.9 | 71.9 | 87.7 | 89.8 | 91.8 | 110.1 | 102.5 | 93.5 | 99.6 | 88.2 | 73.7 | 43.2 | 1165.9 |
| Shevgaon | 35.0 | 37.8 | 41.3 | 50.3 | 59.9 | 77.4 | 84.4 | 91.9 | 105.6 | 111.4 | 105.5 | 111.7 | 110.2 | 101.3 | 81.2 | 45.8 | 1250.8 |
| Pathardi | 35.3 | 37.6 | 41.5 | 49.9 | 60.3 | 77.1 | 85.1 | 91.9 | 104.4 | 111.6 | 105.6 | 110.3 | 109.4 | 100.2 | 80.4 | 45.5 | 1246.1 |
| Parner | 35.0 | 35.8 | 41.2 | 46.4 | 60.8 | 74.4 | 86.7 | 91.1 | 97.7 | 110.9 | 104.3 | 101.5 | 104.2 | 93.6 | 76.5 | 44.1 | 1204.2 |
| Sangamner | 32.5 | 37.5 | 40.1 | 50.6 | 57.7 | 76.8 | 82.0 | 90.8 | 107.4 | 110.1 | 104.3 | 114.1 | 112.4 | 103.1 | 83.0 | 46.5 | 1249.0 |
| Kopargaon | 26.6 | 36.1 | 37.2 | 48.3 | 53.7 | 73.8 | 75.9 | 86.7 | 106.0 | 103.4 | 99.6 | 110.8 | 111.2 | 99.2 | 82.3 | 45.5 | 1196.5 |
| Akole | 34.3 | 37.9 | 41.1 | 51.9 | 59.2 | 77.8 | 84.2 | 92.4 | 108.7 | 112.8 | 106.4 | 116.6 | 113.5 | 104.9 | 83.4 | 46.9 | 1272.1 |
| Shrirampur | 31.6 | 37.5 | 39.0 | 49.7 | 56.3 | 75.8 | 79.4 | 89.4 | 106.8 | 107.7 | 102.2 | 112.0 | 111.4 | 101.0 | 82.1 | 45.6 | 1227.7 |
| Newasa | 34.0 | 37.9 | 40.0 | 50.1 | 57.9 | 76.6 | 81.7 | 90.8 | 106.4 | 109.8 | 103.7 | 111.8 | 110.7 | 101.3 | 81.7 | 45.7 | 1240.0 |
| Rahata | 26.5 | 36.1 | 37.1 | 48.2 | 53.6 | 73.7 | 75.7 | 86.6 | 105.9 | 103.2 | 99.4 | 110.5 | 111.0 | 98.8 | 82.1 | 45.3 | 1193.7 |
| Rahuri | 35.6 | 39.4 | 39.3 | 51.2 | 56.8 | 77.5 | 79.1 | 90.7 | 109.6 | 109.8 | 102.5 | 113.7 | 113.1 | 103.0 | 82.5 | 45.4 | 1249.1 |
| Shrigonda | 36.3 | 37.6 | 43.0 | 50.3 | 62.3 | 77.8 | 87.6 | 93.3 | 103.5 | 112.5 | 108.0 | 110.4 | 108.3 | 99.1 | 78.3 | 44.9 | 1253.3 |
| karjat | 36.9 | 38.4 | 44.0 | 52.0 | 63.2 | 78.9 | 87.9 | 93.9 | 105.3 | 112.9 | 109.6 | 114.1 | 110.7 | 101.1 | 78.8 | 45.1 | 1273.1 |
| Jamkhed | 36.6 | 38.8 | 43.9 | 51.2 | 61.5 | 79.0 | 87.5 | 94.0 | 105.5 | 112.8 | 111.3 | 113.5 | 110.5 | 101.5 | 79.0 | 46.0 | 1272.4 |

Table No. B-3: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 27.8 | 27.4 | 32.5 | 34.7 | 48.7 | 57.5 | 70.2 | 71.8 | 73.4 | 88.1 | 82.0 | 74.8 | 79.7 | 70.6 | 59.0 | 34.5 | 932.7 |
| Shevgaon | 28.0 | 30.3 | 33.0 | 40.3 | 47.9 | 61.9 | 67.5 | 73.5 | 84.5 | 89.1 | 84.4 | 89.3 | 88.2 | 81.1 | 64.9 | 36.6 | 1000.6 |
| Pathardi | 28.2 | 30.1 | 33.2 | 39.9 | 48.3 | 61.7 | 68.0 | 73.5 | 83.6 | 89.2 | 84.5 | 88.2 | 87.5 | 80.2 | 64.3 | 36.4 | 996.9 |
| Parner | 28.0 | 28.6 | 32.9 | 37.2 | 48.6 | 59.5 | 69.4 | 72.9 | 78.1 | 88.7 | 83.5 | 81.2 | 83.4 | 74.9 | 61.2 | 35.3 | 963.4 |
| Sangamner | 26.0 | 30.0 | 32.1 | 40.5 | 46.1 | 61.5 | 65.6 | 72.6 | 85.9 | 88.0 | 83.5 | 91.3 | 90.0 | 82.5 | 66.4 | 37.2 | 999.2 |
| Kopargaon | 21.3 | 28.9 | 29.8 | 38.7 | 43.0 | 59.0 | 60.8 | 69.4 | 84.8 | 82.8 | 79.7 | 88.7 | 88.9 | 79.3 | 65.9 | 36.4 | 957.2 |
| Akole | 27.4 | 30.3 | 32.8 | 41.5 | 47.4 | 62.3 | 67.3 | 73.9 | 87.0 | 90.2 | 85.2 | 93.3 | 90.8 | 83.9 | 66.7 | 37.6 | 1017.7 |
| Shrirampur | 25.3 | 30.0 | 31.2 | 39.8 | 45.1 | 60.7 | 63.5 | 71.5 | 85.4 | 86.2 | 81.8 | 89.6 | 89.1 | 80.8 | 65.7 | 36.5 | 982.2 |
| Newasa | 27.2 | 30.3 | 32.0 | 40.1 | 46.4 | 61.3 | 65.4 | 72.6 | 85.1 | 87.8 | 83.0 | 89.4 | 88.6 | 81.0 | 65.3 | 36.5 | 992.0 |
| Rahata | 21.2 | 28.9 | 29.7 | 38.6 | 42.9 | 58.9 | 60.6 | 69.3 | 84.7 | 82.6 | 79.6 | 88.4 | 88.8 | 79.0 | 65.7 | 36.3 | 955.0 |
| Rahuri | 28.5 | 31.5 | 31.4 | 41.0 | 45.4 | 62.0 | 63.2 | 72.6 | 87.6 | 87.8 | 82.0 | 91.0 | 90.5 | 82.4 | 66.0 | 36.3 | 999.3 |
| Shrigonda | 29.0 | 30.1 | 34.4 | 40.2 | 49.9 | 62.2 | 70.1 | 74.7 | 82.8 | 90.0 | 86.4 | 88.3 | 86.7 | 79.3 | 62.7 | 35.9 | 1002.7 |
| karjat | 29.5 | 30.7 | 35.2 | 41.6 | 50.5 | 63.1 | 70.3 | 75.1 | 84.3 | 90.4 | 87.7 | 91.3 | 88.6 | 80.9 | 63.1 | 36.1 | 1018.5 |
| Jamkhed | 29.3 | 31.0 | 35.1 | 40.9 | 49.2 | 63.2 | 70.0 | 75.2 | 84.4 | 90.2 | 89.0 | 90.8 | 88.4 | 81.2 | 63.2 | 36.8 | 1017.9 |

Table No. B-4: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 60% efficiency in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 23.2 | 22.8 | 27.1 | 28.9 | 40.6 | 47.9 | 58.5 | 59.9 | 61.2 | 73.4 | 68.3 | 62.3 | 66.4 | 58.8 | 49.1 | 28.8 | 777.3 |
| Shevgaon | 23.3 | 25.2 | 27.5 | 33.6 | 39.9 | 51.6 | 56.3 | 61.3 | 70.4 | 74.3 | 70.4 | 74.4 | 73.5 | 67.6 | 54.1 | 30.5 | 833.9 |
| Pathardi | 23.5 | 25.1 | 27.6 | 33.3 | 40.2 | 51.4 | 56.7 | 61.3 | 69.6 | 74.4 | 70.4 | 73.5 | 72.9 | 66.8 | 53.6 | 30.3 | 830.7 |
| Parner | 23.3 | 23.9 | 27.4 | 31.0 | 40.5 | 49.6 | 57.8 | 60.7 | 65.1 | 73.9 | 69.5 | 67.7 | 69.5 | 62.4 | 51.0 | 29.4 | 802.8 |
| Sangamner | 21.7 | 25.0 | 26.7 | 33.8 | 38.5 | 51.2 | 54.7 | 60.5 | 71.6 | 73.4 | 69.5 | 76.1 | 75.0 | 68.7 | 55.4 | 31.0 | 832.7 |
| Kopargaon | 17.7 | 24.1 | 24.8 | 32.2 | 35.8 | 49.2 | 50.6 | 57.8 | 70.7 | 69.0 | 66.4 | 73.9 | 74.1 | 66.1 | 54.9 | 30.3 | 797.7 |
| Akole | 22.8 | 25.3 | 27.4 | 34.6 | 39.5 | 51.9 | 56.1 | 61.6 | 72.5 | 75.2 | 71.0 | 77.8 | 75.7 | 69.9 | 55.6 | 31.3 | 848.1 |
| Shrirampur | 21.1 | 25.0 | 26.0 | 33.1 | 37.6 | 50.6 | 52.9 | 59.6 | 71.2 | 71.8 | 68.2 | 74.6 | 74.3 | 67.3 | 54.8 | 30.4 | 818.5 |
| Newasa | 22.7 | 25.2 | 26.7 | 33.4 | 38.6 | 51.1 | 54.5 | 60.5 | 70.9 | 73.2 | 69.1 | 74.5 | 73.8 | 67.5 | 54.5 | 30.4 | 826.7 |
| Rahata | 17.7 | 24.1 | 24.8 | 32.1 | 35.8 | 49.1 | 50.5 | 57.7 | 70.6 | 68.8 | 66.3 | 73.7 | 74.0 | 65.9 | 54.7 | 30.2 | 795.8 |
| Rahuri | 23.8 | 26.3 | 26.2 | 34.1 | 37.9 | 51.7 | 52.7 | 60.5 | 73.0 | 73.2 | 68.4 | 75.8 | 75.4 | 68.7 | 55.0 | 30.2 | 832.8 |
| Shrigonda | 24.2 | 25.1 | 28.7 | 33.5 | 41.5 | 51.8 | 58.4 | 62.2 | 69.0 | 75.0 | 72.0 | 73.6 | 72.2 | 66.1 | 52.2 | 29.9 | 835.5 |
| karjat | 24.6 | 25.6 | 29.4 | 34.7 | 42.1 | 52.6 | 58.6 | 62.6 | 70.2 | 75.3 | 73.1 | 76.1 | 73.8 | 67.4 | 52.5 | 30.1 | 848.7 |
| Jamkhed | 24.4 | 25.8 | 29.2 | 34.1 | 41.0 | 52.7 | 58.3 | 62.7 | 70.3 | 75.2 | 74.2 | 75.7 | 73.7 | 67.7 | 52.7 | 30.7 | 848.2 |

Table No. B-5: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 17.4 | 17.1 | 20.3 | 21.7 | 30.5 | 36.0 | 43.9 | 44.9 | 45.9 | 55.1 | 51.2 | 46.8 | 49.8 | 44.1 | 36.9 | 21.6 | 582.9 |
| Shevgaon | 17.5 | 18.9 | 20.6 | 25.2 | 29.9 | 38.7 | 42.2 | 45.9 | 52.8 | 55.7 | 52.8 | 55.8 | 55.1 | 50.7 | 40.6 | 22.9 | 625.4 |
| Pathardi | 17.6 | 18.8 | 20.7 | 24.9 | 30.2 | 38.6 | 42.5 | 46.0 | 52.2 | 55.8 | 52.8 | 55.1 | 54.7 | 50.1 | 40.2 | 22.8 | 623.0 |
| Parner | 17.5 | 17.9 | 20.6 | 23.2 | 30.4 | 37.2 | 43.4 | 45.5 | 48.8 | 55.5 | 52.2 | 50.7 | 52.1 | 46.8 | 38.3 | 22.0 | 602.1 |
| Sangamner | 16.3 | 18.7 | 20.0 | 25.3 | 28.8 | 38.4 | 41.0 | 45.4 | 53.7 | 55.0 | 52.2 | 57.1 | 56.2 | 51.6 | 41.5 | 23.2 | 624.5 |
| Kopargaon | 13.3 | 18.1 | 18.6 | 24.2 | 26.8 | 36.9 | 38.0 | 43.3 | 53.0 | 51.7 | 49.8 | 55.4 | 55.6 | 49.6 | 41.2 | 22.8 | 598.2 |
| Akole | 17.1 | 19.0 | 20.5 | 26.0 | 29.6 | 38.9 | 42.1 | 46.2 | 54.4 | 56.4 | 53.2 | 58.3 | 56.7 | 52.5 | 41.7 | 23.5 | 636.1 |
| Shrirampur | 15.8 | 18.7 | 19.5 | 24.9 | 28.2 | 37.9 | 39.7 | 44.7 | 53.4 | 53.9 | 51.1 | 56.0 | 55.7 | 50.5 | 41.1 | 22.8 | 613.8 |
| Newasa | 17.0 | 18.9 | 20.0 | 25.0 | 29.0 | 38.3 | 40.8 | 45.4 | 53.2 | 54.9 | 51.9 | 55.9 | 55.4 | 50.7 | 40.8 | 22.8 | 620.0 |
| Rahata | 13.2 | 18.1 | 18.6 | 24.1 | 26.8 | 36.8 | 37.8 | 43.3 | 52.9 | 51.6 | 49.7 | 55.3 | 55.5 | 49.4 | 41.0 | 22.7 | 596.9 |
| Rahuri | 17.8 | 19.7 | 19.6 | 25.6 | 28.4 | 38.7 | 39.5 | 45.3 | 54.8 | 54.9 | 51.3 | 56.8 | 56.6 | 51.5 | 41.3 | 22.7 | 624.6 |
| Shrigonda | 18.1 | 18.8 | 21.5 | 25.1 | 31.2 | 38.9 | 43.8 | 46.7 | 51.8 | 56.2 | 54.0 | 55.2 | 54.2 | 49.6 | 39.2 | 22.4 | 626.7 |
| karjat | 18.4 | 19.2 | 22.0 | 26.0 | 31.6 | 39.5 | 44.0 | 46.9 | 52.7 | 56.5 | 54.8 | 57.1 | 55.4 | 50.6 | 39.4 | 22.6 | 636.5 |
| Jamkhed | 18.3 | 19.4 | 21.9 | 25.6 | 30.7 | 39.5 | 43.8 | 47.0 | 52.8 | 56.4 | 55.6 | 56.8 | 55.3 | 50.8 | 39.5 | 23.0 | 636.2 |

Table No. B-6: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 16.4 | 16.1 | 19.1 | 20.4 | 28.7 | 33.8 | 41.3 | 42.3 | 43.2 | 51.8 | 48.2 | 44.0 | 46.9 | 41.5 | 34.7 | 20.3 | 548.7 |
| Shevgaon | 16.5 | 17.8 | 19.4 | 23.7 | 28.2 | 36.4 | 39.7 | 43.2 | 49.7 | 52.4 | 49.7 | 52.6 | 51.9 | 47.7 | 38.2 | 21.6 | 588.6 |
| Pathardi | 16.6 | 17.7 | 19.5 | 23.5 | 28.4 | 36.3 | 40.0 | 43.3 | 49.1 | 52.5 | 49.7 | 51.9 | 51.5 | 47.2 | 37.8 | 21.4 | 586.4 |
| Parner | 16.5 | 16.8 | 19.4 | 21.9 | 28.6 | 35.0 | 40.8 | 42.9 | 46.0 | 52.2 | 49.1 | 47.8 | 49.0 | 44.1 | 36.0 | 20.7 | 566.7 |
| Sangamner | 15.3 | 17.6 | 18.9 | 23.8 | 27.1 | 36.2 | 38.6 | 42.7 | 50.5 | 51.8 | 49.1 | 53.7 | 52.9 | 48.5 | 39.1 | 21.9 | 587.8 |
| Kopargaon | 12.5 | 17.0 | 17.5 | 22.7 | 25.3 | 34.7 | 35.7 | 40.8 | 49.9 | 48.7 | 46.9 | 52.1 | 52.3 | 46.7 | 38.7 | 21.4 | 563.1 |
| Akole | 16.1 | 17.8 | 19.3 | 24.4 | 27.9 | 36.6 | 39.6 | 43.5 | 51.2 | 53.1 | 50.1 | 54.9 | 53.4 | 49.4 | 39.3 | 22.1 | 598.7 |
| Shrirampur | 14.9 | 17.6 | 18.3 | 23.4 | 26.5 | 35.7 | 37.4 | 42.1 | 50.3 | 50.7 | 48.1 | 52.7 | 52.4 | 47.5 | 38.7 | 21.5 | 577.7 |
| Newasa | 16.0 | 17.8 | 18.8 | 23.6 | 27.3 | 36.1 | 38.4 | 42.7 | 50.0 | 51.7 | 48.8 | 52.6 | 52.1 | 47.7 | 38.4 | 21.5 | 583.5 |
| Rahata | 12.5 | 17.0 | 17.5 | 22.7 | 25.2 | 34.7 | 35.6 | 40.7 | 49.8 | 48.6 | 46.8 | 52.0 | 52.2 | 46.5 | 38.6 | 21.3 | 561.8 |
| Rahuri | 16.8 | 18.6 | 18.5 | 24.1 | 26.7 | 36.5 | 37.2 | 42.7 | 51.6 | 51.7 | 48.3 | 53.5 | 53.2 | 48.5 | 38.8 | 21.3 | 587.8 |
| Shrigonda | 17.1 | 17.7 | 20.2 | 23.6 | 29.3 | 36.6 | 41.2 | 43.9 | 48.7 | 52.9 | 50.8 | 52.0 | 51.0 | 46.7 | 36.9 | 21.1 | 589.8 |
| karjat | 17.4 | 18.1 | 20.7 | 24.5 | 29.7 | 37.1 | 41.4 | 44.2 | 49.6 | 53.1 | 51.6 | 53.7 | 52.1 | 47.6 | 37.1 | 21.2 | 599.1 |
| Jamkhed | 17.2 | 18.2 | 20.6 | 24.1 | 28.9 | 37.2 | 41.2 | 44.2 | 49.6 | 53.1 | 52.4 | 53.4 | 52.0 | 47.8 | 37.2 | 21.6 | 598.8 |

Table No. B-7: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 15.5 | 15.2 | 18.1 | 19.3 | 27.1 | 32.0 | 39.0 | 39.9 | 40.8 | 49.0 | 45.5 | 41.6 | 44.3 | 39.2 | 32.8 | 19.2 | 518.2 |
| Shevgaon | 15.6 | 16.8 | 18.3 | 22.4 | 26.6 | 34.4 | 37.5 | 40.8 | 46.9 | 49.5 | 46.9 | 49.6 | 49.0 | 45.0 | 36.1 | 20.4 | 555.9 |
| Pathardi | 15.7 | 16.7 | 18.4 | 22.2 | 26.8 | 34.3 | 37.8 | 40.9 | 46.4 | 49.6 | 46.9 | 49.0 | 48.6 | 44.5 | 35.7 | 20.2 | 553.8 |
| Parner | 15.6 | 15.9 | 18.3 | 20.6 | 27.0 | 33.1 | 38.5 | 40.5 | 43.4 | 49.3 | 46.4 | 45.1 | 46.3 | 41.6 | 34.0 | 19.6 | 535.2 |
| Sangamner | 14.5 | 16.7 | 17.8 | 22.5 | 25.6 | 34.1 | 36.5 | 40.3 | 47.7 | 48.9 | 46.4 | 50.7 | 50.0 | 45.8 | 36.9 | 20.7 | 555.1 |
| Kopargaon | 11.8 | 16.1 | 16.6 | 21.5 | 23.9 | 32.8 | 33.8 | 38.5 | 47.1 | 46.0 | 44.3 | 49.3 | 49.4 | 44.1 | 36.6 | 20.2 | 531.8 |
| Akole | 15.2 | 16.9 | 18.2 | 23.1 | 26.3 | 34.6 | 37.4 | 41.1 | 48.3 | 50.1 | 47.3 | 51.8 | 50.4 | 46.6 | 37.1 | 20.9 | 565.4 |
| Shrirampur | 14.1 | 16.7 | 17.3 | 22.1 | 25.0 | 33.7 | 35.3 | 39.7 | 47.5 | 47.9 | 45.4 | 49.8 | 49.5 | 44.9 | 36.5 | 20.3 | 545.6 |
| Newasa | 15.1 | 16.8 | 17.8 | 22.3 | 25.8 | 34.1 | 36.3 | 40.3 | 47.3 | 48.8 | 46.1 | 49.7 | 49.2 | 45.0 | 36.3 | 20.3 | 551.1 |
| Rahata | 11.8 | 16.0 | 16.5 | 21.4 | 23.8 | 32.7 | 33.6 | 38.5 | 47.1 | 45.9 | 44.2 | 49.1 | 49.3 | 43.9 | 36.5 | 20.2 | 530.5 |
| Rahuri | 15.8 | 17.5 | 17.5 | 22.8 | 25.2 | 34.4 | 35.1 | 40.3 | 48.7 | 48.8 | 45.6 | 50.5 | 50.3 | 45.8 | 36.7 | 20.2 | 555.2 |
| Shrigonda | 16.1 | 16.7 | 19.1 | 22.3 | 27.7 | 34.6 | 38.9 | 41.5 | 46.0 | 50.0 | 48.0 | 49.1 | 48.2 | 44.1 | 34.8 | 20.0 | 557.0 |
| karjat | 16.4 | 17.1 | 19.6 | 23.1 | 28.1 | 35.1 | 39.1 | 41.7 | 46.8 | 50.2 | 48.7 | 50.7 | 49.2 | 45.0 | 35.0 | 20.1 | 565.8 |
| Jamkhed | 16.3 | 17.2 | 19.5 | 22.7 | 27.3 | 35.1 | 38.9 | 41.8 | 46.9 | 50.1 | 49.4 | 50.4 | 49.1 | 45.1 | 35.1 | 20.4 | 565.5 |

Table No. B-8: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 95% efficiency in Ahmednagar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nagar | 14.6 | 14.4 | 17.1 | 18.3 | 25.6 | 30.3 | 36.9 | 37.8 | 38.7 | 46.4 | 43.1 | 39.4 | 41.9 | 37.1 | 31.0 | 18.2 | 490.9 |
| Shevgaon | 14.7 | 15.9 | 17.4 | 21.2 | 25.2 | 32.6 | 35.5 | 38.7 | 44.5 | 46.9 | 44.4 | 47.0 | 46.4 | 42.7 | 34.2 | 19.3 | 526.7 |
| Pathardi | 14.8 | 15.8 | 17.5 | 21.0 | 25.4 | 32.5 | 35.8 | 38.7 | 44.0 | 47.0 | 44.5 | 46.4 | 46.1 | 42.2 | 33.8 | 19.2 | 524.7 |
| Parner | 14.7 | 15.1 | 17.3 | 19.6 | 25.6 | 31.3 | 36.5 | 38.3 | 41.1 | 46.7 | 43.9 | 42.7 | 43.9 | 39.4 | 32.2 | 18.6 | 507.0 |
| Sangamner | 13.7 | 15.8 | 16.9 | 21.3 | 24.3 | 32.3 | 34.5 | 38.2 | 45.2 | 46.3 | 43.9 | 48.1 | 47.3 | 43.4 | 35.0 | 19.6 | 525.9 |
| Kopargaon | 11.2 | 15.2 | 15.7 | 20.3 | 22.6 | 31.1 | 32.0 | 36.5 | 44.6 | 43.6 | 41.9 | 46.7 | 46.8 | 41.8 | 34.7 | 19.2 | 503.8 |
| Akole | 14.4 | 16.0 | 17.3 | 21.9 | 24.9 | 32.8 | 35.4 | 38.9 | 45.8 | 47.5 | 44.8 | 49.1 | 47.8 | 44.2 | 35.1 | 19.8 | 535.6 |
| Shrirampur | 13.3 | 15.8 | 16.4 | 20.9 | 23.7 | 31.9 | 33.4 | 37.6 | 45.0 | 45.3 | 43.0 | 47.1 | 46.9 | 42.5 | 34.6 | 19.2 | 516.9 |
| Newasa | 14.3 | 15.9 | 16.8 | 21.1 | 24.4 | 32.3 | 34.4 | 38.2 | 44.8 | 46.2 | 43.7 | 47.1 | 46.6 | 42.7 | 34.4 | 19.2 | 522.1 |
| Rahata | 11.2 | 15.2 | 15.6 | 20.3 | 22.6 | 31.0 | 31.9 | 36.5 | 44.6 | 43.5 | 41.9 | 46.5 | 46.7 | 41.6 | 34.6 | 19.1 | 502.6 |
| Rahuri | 15.0 | 16.6 | 16.5 | 21.6 | 23.9 | 32.6 | 33.3 | 38.2 | 46.1 | 46.2 | 43.2 | 47.9 | 47.6 | 43.4 | 34.7 | 19.1 | 526.0 |
| Shrigonda | 15.3 | 15.8 | 18.1 | 21.2 | 26.2 | 32.7 | 36.9 | 39.3 | 43.6 | 47.3 | 45.5 | 46.5 | 45.6 | 41.7 | 33.0 | 18.9 | 527.7 |
| karjat | 15.5 | 16.2 | 18.5 | 21.9 | 26.6 | 33.2 | 37.0 | 39.5 | 44.3 | 47.6 | 46.2 | 48.0 | 46.6 | 42.6 | 33.2 | 19.0 | 536.0 |
| Jamkhed | 15.4 | 16.3 | 18.5 | 21.5 | 25.9 | 33.3 | 36.8 | 39.6 | 44.4 | 47.5 | 46.8 | 47.8 | 46.5 | 42.7 | 33.3 | 19.4 | 535.7 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods Ignoring Effective Rainfall of Rabi Gram in Dhule District

Table No. B-9: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 15.0 | 16.3 | 17.0 | 22.9 | 24.4 | 33.1 | 35.2 | 39.1 | 46.5 | 47.1 | 45.6 | 52.7 | 41.3 | 48.2 | 38.3 | 22.0 | 544.7 |
| Sakri | 14.5 | 15.8 | 16.8 | 22.0 | 24.1 | 32.3 | 34.6 | 38.1 | 45.1 | 46.2 | 44.3 | 50.0 | 43.3 | 45.6 | 36.2 | 20.6 | 529.7 |
| Sindkheda | 14.7 | 16.0 | 16.9 | 22.4 | 24.3 | 32.7 | 34.8 | 38.6 | 45.7 | 46.5 | 44.9 | 51.2 | 42.3 | 46.7 | 37.1 | 21.2 | 536.1 |
| Shirpur | 14.7 | 15.9 | 16.9 | 22.2 | 24.3 | 32.6 | 34.8 | 38.4 | 45.5 | 46.4 | 44.7 | 50.8 | 42.5 | 46.3 | 36.8 | 21.0 | 533.9 |

Table No. B-10: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 37.4 | 40.7 | 42.6 | 57.2 | 61.1 | 82.8 | 87.9 | 97.7 | 116.2 | 117.6 | 114.0 | 131.7 | 103.2 | 120.6 | 95.8 | 55.0 | 1361.7 |
| Sakri | 36.4 | 39.4 | 42.1 | 54.9 | 60.2 | 80.8 | 86.6 | 95.3 | 112.7 | 115.5 | 110.7 | 125.1 | 108.2 | 114.1 | 90.6 | 51.6 | 1324.2 |
| Sindkheda | 36.8 | 40.0 | 42.3 | 55.9 | 60.7 | 81.7 | 87.1 | 96.4 | 114.2 | 116.4 | 112.2 | 127.9 | 105.7 | 116.8 | 92.8 | 53.1 | 1340.2 |
| Shirpur | 36.7 | 39.9 | 42.3 | 55.6 | 60.6 | 81.4 | 86.9 | 96.1 | 113.7 | 116.0 | 111.8 | 127.0 | 106.3 | 115.8 | 92.0 | 52.5 | 1334.7 |

Table No. B-11: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 29.9 | 32.6 | 34.1 | 45.8 | 48.9 | 66.3 | 70.3 | 78.1 | 93.0 | 94.1 | 91.2 | 105.3 | 82.6 | 96.5 | 76.6 | 44.0 | 1089.4 |
| Sakri | 29.1 | 31.6 | 33.7 | 43.9 | 48.2 | 64.7 | 69.2 | 76.3 | 90.2 | 92.4 | 88.6 | 100.0 | 86.6 | 91.3 | 72.5 | 41.3 | 1059.4 |
| Sindkheda | 29.5 | 32.0 | 33.9 | 44.7 | 48.6 | 65.4 | 69.7 | 77.1 | 91.4 | 93.1 | 89.8 | 102.4 | 84.6 | 93.5 | 74.2 | 42.4 | 1072.1 |
| Shirpur | 29.4 | 31.9 | 33.8 | 44.5 | 48.5 | 65.2 | 69.5 | 76.9 | 91.0 | 92.8 | 89.4 | 101.6 | 85.1 | 92.7 | 73.6 | 42.0 | 1067.7 |

Table No. B-12: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 24.9 | 27.1 | 28.4 | 38.1 | 40.7 | 55.2 | 58.6 | 65.1 | 77.5 | 78.4 | 76.0 | 87.8 | 68.8 | 80.4 | 63.8 | 36.7 | 907.8 |
| Sakri | 24.2 | 26.3 | 28.1 | 36.6 | 40.1 | 53.9 | 57.7 | 63.6 | 75.2 | 77.0 | 73.8 | 83.4 | 72.1 | 76.1 | 60.4 | 34.4 | 882.8 |
| Sindkheda | 24.6 | 26.7 | 28.2 | 37.3 | 40.5 | 54.5 | 58.1 | 64.3 | 76.2 | 77.6 | 74.8 | 85.3 | 70.5 | 77.9 | 61.8 | 35.4 | 893.4 |
| Shirpur | 24.5 | 26.6 | 28.2 | 37.0 | 40.4 | 54.3 | 58.0 | 64.1 | 75.8 | 77.4 | 74.5 | 84.7 | 70.9 | 77.2 | 61.3 | 35.0 | 889.8 |

Table No. B-13: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 18.7 | 20.3 | 21.3 | 28.6 | 30.6 | 41.4 | 43.9 | 48.8 | 58.1 | 58.8 | 57.0 | 65.8 | 51.6 | 60.3 | 47.9 | 27.5 | 680.9 |
| Sakri | 18.2 | 19.7 | 21.1 | 27.4 | 30.1 | 40.4 | 43.3 | 47.7 | 56.4 | 57.8 | 55.4 | 62.5 | 54.1 | 57.1 | 45.3 | 25.8 | 662.1 |
| Sindkheda | 18.4 | 20.0 | 21.2 | 28.0 | 30.4 | 40.9 | 43.6 | 48.2 | 57.1 | 58.2 | 56.1 | 64.0 | 52.9 | 58.4 | 46.4 | 26.5 | 670.1 |
| Shirpur | 18.4 | 19.9 | 21.1 | 27.8 | 30.3 | 40.7 | 43.5 | 48.0 | 56.9 | 58.0 | 55.9 | 63.5 | 53.2 | 57.9 | 46.0 | 26.3 | 667.3 |

Table No. B-14: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 17.6 | 19.2 | 20.0 | 26.9 | 28.8 | 39.0 | 41.4 | 46.0 | 54.7 | 55.4 | 53.7 | 62.0 | 48.6 | 56.8 | 45.1 | 25.9 | 640.8 |
| Sakri | 17.1 | 18.6 | 19.8 | 25.8 | 28.3 | 38.0 | 40.7 | 44.9 | 53.0 | 54.4 | 52.1 | 58.9 | 50.9 | 53.7 | 42.6 | 24.3 | 623.2 |
| Sindkheda | 17.3 | 18.8 | 19.9 | 26.3 | 28.6 | 38.5 | 41.0 | 45.4 | 53.8 | 54.8 | 52.8 | 60.2 | 49.8 | 55.0 | 43.7 | 25.0 | 630.7 |
| Shirpur | 17.3 | 18.8 | 19.9 | 26.2 | 28.5 | 38.3 | 40.9 | 45.2 | 53.5 | 54.6 | 52.6 | 59.8 | 50.0 | 54.5 | 43.3 | 24.7 | 628.1 |

Table No. B-15: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 16.6 | 18.1 | 18.9 | 25.4 | 27.2 | 36.8 | 39.1 | 43.4 | 51.7 | 52.3 | 50.7 | 58.5 | 45.9 | 53.6 | 42.6 | 24.5 | 605.2 |
| Sakri | 16.2 | 17.5 | 18.7 | 24.4 | 26.8 | 35.9 | 38.5 | 42.4 | 50.1 | 51.3 | 49.2 | 55.6 | 48.1 | 50.7 | 40.3 | 22.9 | 588.5 |
| Sindkheda | 16.4 | 17.8 | 18.8 | 24.8 | 27.0 | 36.3 | 38.7 | 42.8 | 50.8 | 51.7 | 49.9 | 56.9 | 47.0 | 51.9 | 41.2 | 23.6 | 595.6 |
| Shirpur | 16.3 | 17.7 | 18.8 | 24.7 | 26.9 | 36.2 | 38.6 | 42.7 | 50.5 | 51.6 | 49.7 | 56.4 | 47.3 | 51.5 | 40.9 | 23.3 | 593.2 |

Table No. B-16: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 95% efficiency in Dhule District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Dhule | 15.8 | 17.1 | 17.9 | 24.1 | 25.7 | 34.9 | 37.0 | 41.1 | 48.9 | 49.5 | 48.0 | 55.4 | 43.5 | 50.8 | 40.3 | 23.2 | 573.4 |
| Sakri | 15.3 | 16.6 | 17.7 | 23.1 | 25.4 | 34.0 | 36.4 | 40.1 | 47.5 | 48.6 | 46.6 | 52.7 | 45.6 | 48.0 | 38.1 | 21.7 | 557.6 |
| Sindkheda | 15.5 | 16.8 | 17.8 | 23.5 | 25.6 | 34.4 | 36.7 | 40.6 | 48.1 | 49.0 | 47.3 | 53.9 | 44.5 | 49.2 | 39.1 | 22.3 | 564.3 |
| Shirpur | 15.5 | 16.8 | 17.8 | 23.4 | 25.5 | 34.3 | 36.6 | 40.5 | 47.9 | 48.9 | 47.1 | 53.5 | 44.8 | 48.8 | 38.7 | 22.1 | 562.0 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods Ignoring Effective Rainfall of Rabi Gram in Jalgaon District

Table No. B-17: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 14.4 | 15.7 | 16.9 | 21.7 | 24.3 | 32.3 | 34.6 | 38.0 | 44.7 | 46.0 | 44.1 | 49.2 | 43.6 | 44.7 | 35.5 | 20.2 | 525.9 |
| Jamner | 14.4 | 15.6 | 16.9 | 21.5 | 24.3 | 32.1 | 34.5 | 37.8 | 44.3 | 45.7 | 43.8 | 48.5 | 44.1 | 44.0 | 34.8 | 19.7 | 522.0 |
| Erandol | 14.5 | 15.8 | 16.9 | 22.0 | 24.2 | 32.4 | 34.7 | 38.2 | 45.1 | 46.2 | 44.4 | 50.0 | 43.1 | 45.5 | 36.1 | 20.6 | 529.8 |
| Dharangaon | 14.6 | 15.9 | 16.9 | 22.1 | 24.3 | 32.5 | 34.7 | 38.3 | 45.3 | 46.3 | 44.5 | 50.3 | 42.9 | 45.9 | 36.4 | 20.8 | 531.8 |
| Bhusaval | 14.4 | 15.7 | 16.9 | 21.6 | 24.3 | 32.2 | 34.5 | 37.8 | 44.5 | 45.8 | 43.9 | 48.7 | 44.0 | 44.2 | 35.0 | 19.9 | 523.5 |
| Raver | 14.4 | 15.6 | 17.0 | 21.5 | 24.4 | 32.1 | 34.6 | 37.8 | 44.3 | 45.8 | 43.9 | 48.5 | 44.3 | 43.9 | 34.7 | 19.7 | 522.6 |
| Muktainagar | 14.4 | 15.6 | 17.0 | 21.5 | 24.4 | 32.1 | 34.6 | 37.8 | 44.3 | 45.8 | 43.8 | 48.4 | 44.3 | 43.8 | 34.6 | 19.6 | 521.9 |
| Bodwad | 14.4 | 15.6 | 17.0 | 21.5 | 24.4 | 32.1 | 34.5 | 37.7 | 44.2 | 45.7 | 43.8 | 48.3 | 44.3 | 43.7 | 34.6 | 19.6 | 521.4 |
| Yawal | 14.4 | 15.7 | 16.9 | 21.7 | 24.3 | 32.2 | 34.6 | 37.9 | 44.6 | 45.9 | 44.0 | 49.0 | 43.9 | 44.4 | 35.2 | 20.0 | 524.8 |
| Amalner | 14.8 | 16.1 | 16.9 | 22.4 | 24.3 | 32.8 | 34.9 | 38.6 | 45.8 | 46.6 | 45.0 | 51.4 | 42.1 | 47.0 | 37.3 | 21.4 | 537.3 |
| Parola | 14.7 | 16.0 | 16.9 | 22.3 | 24.3 | 32.7 | 34.8 | 38.5 | 45.6 | 46.5 | 44.8 | 51.0 | 42.4 | 46.6 | 37.0 | 21.1 | 535.3 |
| Chopda | 14.6 | 15.9 | 16.9 | 22.0 | 24.3 | 32.5 | 34.7 | 38.2 | 45.1 | 46.2 | 44.4 | 50.0 | 43.2 | 45.6 | 36.1 | 20.6 | 530.3 |
| Pachora | 14.4 | 15.7 | 16.8 | 21.7 | 24.1 | 32.2 | 34.5 | 37.9 | 44.7 | 45.9 | 44.0 | 49.2 | 43.5 | 44.8 | 35.6 | 20.2 | 525.3 |
| Bhadgaon | 14.4 | 15.8 | 16.8 | 21.9 | 24.2 | 32.3 | 34.5 | 38.0 | 45.0 | 46.0 | 44.2 | 49.7 | 43.2 | 45.2 | 36.0 | 20.5 | 527.6 |
| Chalisgaon | 14.2 | 15.6 | 16.6 | 21.5 | 23.8 | 31.9 | 34.1 | 37.7 | 44.5 | 45.6 | 43.7 | 48.9 | 43.5 | 44.5 | 35.5 | 20.1 | 521.8 |

Table No. B-18: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 36.1 | 39.3 | 42.3 | 54.3 | 60.7 | 80.6 | 86.4 | 94.9 | 111.8 | 114.9 | 110.2 | 123.1 | 109.1 | 111.8 | 88.7 | 50.4 | 1314.7 |
| Jamner | 35.9 | 39.1 | 42.3 | 53.8 | 60.7 | 80.2 | 86.2 | 94.4 | 110.8 | 114.3 | 109.5 | 121.2 | 110.2 | 109.9 | 87.1 | 49.4 | 1305.0 |
| Erandol | 36.3 | 39.6 | 42.3 | 54.9 | 60.6 | 81.0 | 86.6 | 95.5 | 112.8 | 115.4 | 110.9 | 125.0 | 107.8 | 113.8 | 90.3 | 51.5 | 1324.4 |
| Dharangaon | 36.5 | 39.7 | 42.3 | 55.3 | 60.7 | 81.3 | 86.8 | 95.8 | 113.3 | 115.8 | 111.3 | 125.9 | 107.2 | 114.7 | 91.1 | 52.0 | 1329.6 |
| Bhusaval | 36.0 | 39.2 | 42.4 | 54.0 | 60.8 | 80.4 | 86.4 | 94.6 | 111.2 | 114.6 | 109.8 | 121.8 | 110.0 | 110.5 | 87.5 | 49.6 | 1308.7 |
| Raver | 36.1 | 39.1 | 42.5 | 53.8 | 61.0 | 80.4 | 86.5 | 94.5 | 110.8 | 114.5 | 109.7 | 121.2 | 110.7 | 109.8 | 86.8 | 49.2 | 1306.5 |
| Muktainagar | 36.1 | 39.1 | 42.5 | 53.7 | 61.0 | 80.3 | 86.4 | 94.4 | 110.7 | 114.4 | 109.5 | 120.9 | 110.8 | 109.4 | 86.5 | 49.0 | 1304.7 |
| Bodwad | 36.0 | 39.1 | 42.5 | 53.7 | 60.9 | 80.2 | 86.3 | 94.3 | 110.6 | 114.3 | 109.4 | 120.7 | 110.8 | 109.3 | 86.4 | 49.0 | 1303.4 |
| Yawal | 36.1 | 39.3 | 42.4 | 54.2 | 60.8 | 80.5 | 86.5 | 94.8 | 111.5 | 114.8 | 110.0 | 122.4 | 109.7 | 111.1 | 88.0 | 50.0 | 1312.0 |
| Amalner | 36.9 | 40.1 | 42.4 | 56.1 | 60.8 | 81.9 | 87.2 | 96.6 | 114.5 | 116.5 | 112.5 | 128.5 | 105.2 | 117.4 | 93.2 | 53.4 | 1343.2 |
| Parola | 36.7 | 40.0 | 42.4 | 55.8 | 60.7 | 81.7 | 87.1 | 96.3 | 114.1 | 116.3 | 112.1 | 127.5 | 106.1 | 116.4 | 92.5 | 52.9 | 1338.3 |
| Chopda | 36.4 | 39.6 | 42.4 | 55.0 | 60.7 | 81.1 | 86.8 | 95.6 | 112.9 | 115.6 | 111.1 | 125.1 | 107.9 | 113.9 | 90.3 | 51.5 | 1325.8 |
| Pachora | 35.9 | 39.3 | 42.1 | 54.3 | 60.4 | 80.5 | 86.2 | 94.8 | 111.8 | 114.7 | 110.0 | 123.1 | 108.8 | 112.0 | 88.9 | 50.6 | 1313.2 |
| Bhadgaon | 36.1 | 39.4 | 42.1 | 54.6 | 60.4 | 80.7 | 86.3 | 95.1 | 112.4 | 115.1 | 110.4 | 124.2 | 108.1 | 113.1 | 89.9 | 51.2 | 1319.1 |
| Chalisgaon | 35.4 | 39.0 | 41.6 | 53.8 | 59.6 | 79.8 | 85.4 | 94.2 | 111.3 | 114.0 | 109.2 | 122.3 | 108.7 | 111.3 | 88.7 | 50.4 | 1304.6 |

Table No. B-19: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 28.9 | 31.5 | 33.8 | 43.5 | 48.5 | 64.5 | 69.1 | 75.9 | 89.4 | 91.9 | 88.1 | 98.5 | 87.3 | 89.5 | 70.9 | 40.3 | 1051.8 |
| Jamner | 28.7 | 31.3 | 33.8 | 43.0 | 48.6 | 64.2 | 69.0 | 75.5 | 88.7 | 91.5 | 87.6 | 97.0 | 88.2 | 87.9 | 69.7 | 39.5 | 1044.0 |
| Erandol | 29.1 | 31.7 | 33.8 | 44.0 | 48.5 | 64.8 | 69.3 | 76.4 | 90.2 | 92.4 | 88.7 | 100.0 | 86.2 | 91.1 | 72.3 | 41.2 | 1059.6 |
| Dharangaon | 29.2 | 31.8 | 33.9 | 44.2 | 48.6 | 65.0 | 69.5 | 76.6 | 90.6 | 92.6 | 89.1 | 100.7 | 85.8 | 91.8 | 72.8 | 41.6 | 1063.6 |
| Bhusaval | 28.8 | 31.3 | 33.9 | 43.2 | 48.6 | 64.3 | 69.1 | 75.7 | 88.9 | 91.7 | 87.8 | 97.5 | 88.0 | 88.4 | 70.0 | 39.7 | 1047.0 |
| Raver | 28.9 | 31.3 | 34.0 | 43.1 | 48.8 | 64.3 | 69.2 | 75.6 | 88.7 | 91.6 | 87.7 | 97.0 | 88.5 | 87.8 | 69.4 | 39.4 | 1045.2 |
| Muktainagar | 28.8 | 31.3 | 34.0 | 43.0 | 48.8 | 64.2 | 69.1 | 75.5 | 88.5 | 91.5 | 87.6 | 96.7 | 88.6 | 87.6 | 69.2 | 39.2 | 1043.7 |
| Bodwad | 28.8 | 31.2 | 34.0 | 42.9 | 48.7 | 64.2 | 69.1 | 75.5 | 88.5 | 91.4 | 87.5 | 96.6 | 88.6 | 87.4 | 69.1 | 39.2 | 1042.8 |
| Yawal | 28.9 | 31.4 | 33.9 | 43.3 | 48.6 | 64.4 | 69.2 | 75.8 | 89.2 | 91.8 | 88.0 | 98.0 | 87.7 | 88.9 | 70.4 | 40.0 | 1049.6 |
| Amalner | 29.5 | 32.1 | 33.9 | 44.9 | 48.6 | 65.5 | 69.8 | 77.3 | 91.6 | 93.2 | 90.0 | 102.8 | 84.2 | 93.9 | 74.6 | 42.7 | 1074.6 |
| Parola | 29.4 | 32.0 | 33.9 | 44.6 | 48.6 | 65.4 | 69.6 | 77.0 | 91.3 | 93.0 | 89.6 | 102.0 | 84.8 | 93.1 | 74.0 | 42.3 | 1070.6 |
| Chopda | 29.1 | 31.7 | 33.9 | 44.0 | 48.6 | 64.9 | 69.4 | 76.4 | 90.3 | 92.5 | 88.8 | 100.1 | 86.3 | 91.1 | 72.3 | 41.2 | 1060.6 |
| Pachora | 28.7 | 31.4 | 33.7 | 43.4 | 48.3 | 64.4 | 68.9 | 75.8 | 89.5 | 91.8 | 88.0 | 98.5 | 87.0 | 89.6 | 71.2 | 40.4 | 1050.5 |
| Bhadgaon | 28.8 | 31.6 | 33.7 | 43.7 | 48.3 | 64.6 | 69.0 | 76.1 | 89.9 | 92.0 | 88.3 | 99.3 | 86.5 | 90.5 | 71.9 | 40.9 | 1055.2 |
| Chalisgaon | 28.4 | 31.2 | 33.3 | 43.0 | 47.7 | 63.9 | 68.3 | 75.4 | 89.0 | 91.2 | 87.3 | 97.8 | 86.9 | 89.0 | 71.0 | 40.3 | 1043.7 |

Table No. B-20: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 24.1 | 26.2 | 28.2 | 36.2 | 40.4 | 53.8 | 57.6 | 63.3 | 74.5 | 76.6 | 73.5 | 82.0 | 72.7 | 74.6 | 59.1 | 33.6 | 876.5 |
| Jamner | 23.9 | 26.1 | 28.2 | 35.8 | 40.5 | 53.5 | 57.5 | 62.9 | 73.9 | 76.2 | 73.0 | 80.8 | 73.5 | 73.3 | 58.0 | 32.9 | 870.0 |
| Erandol | 24.2 | 26.4 | 28.2 | 36.6 | 40.4 | 54.0 | 57.8 | 63.6 | 75.2 | 77.0 | 74.0 | 83.3 | 71.8 | 75.9 | 60.2 | 34.3 | 883.0 |
| Dharangaon | 24.3 | 26.5 | 28.2 | 36.8 | 40.5 | 54.2 | 57.9 | 63.8 | 75.5 | 77.2 | 74.2 | 83.9 | 71.5 | 76.5 | 60.7 | 34.6 | 886.4 |
| Bhusaval | 24.0 | 26.1 | 28.2 | 36.0 | 40.5 | 53.6 | 57.6 | 63.1 | 74.1 | 76.4 | 73.2 | 81.2 | 73.4 | 73.7 | 58.3 | 33.1 | 872.5 |
| Raver | 24.1 | 26.1 | 28.3 | 35.9 | 40.7 | 53.6 | 57.6 | 63.0 | 73.9 | 76.3 | 73.1 | 80.8 | 73.8 | 73.2 | 57.8 | 32.8 | 871.0 |
| Muktainagar | 24.0 | 26.1 | 28.3 | 35.8 | 40.6 | 53.5 | 57.6 | 62.9 | 73.8 | 76.3 | 73.0 | 80.6 | 73.9 | 73.0 | 57.7 | 32.7 | 869.8 |
| Bodwad | 24.0 | 26.0 | 28.3 | 35.8 | 40.6 | 53.5 | 57.5 | 62.9 | 73.7 | 76.2 | 72.9 | 80.5 | 73.9 | 72.9 | 57.6 | 32.6 | 869.0 |
| Yawal | 24.1 | 26.2 | 28.2 | 36.1 | 40.5 | 53.7 | 57.6 | 63.2 | 74.3 | 76.5 | 73.3 | 81.6 | 73.1 | 74.1 | 58.7 | 33.3 | 874.7 |
| Amalner | 24.6 | 26.8 | 28.2 | 37.4 | 40.5 | 54.6 | 58.1 | 64.4 | 76.4 | 77.7 | 75.0 | 85.7 | 70.2 | 78.3 | 62.2 | 35.6 | 895.5 |
| Parola | 24.5 | 26.7 | 28.2 | 37.2 | 40.5 | 54.5 | 58.0 | 64.2 | 76.1 | 77.5 | 74.7 | 85.0 | 70.7 | 77.6 | 61.6 | 35.2 | 892.2 |
| Chopda | 24.3 | 26.4 | 28.2 | 36.7 | 40.5 | 54.1 | 57.8 | 63.7 | 75.2 | 77.0 | 74.0 | 83.4 | 71.9 | 75.9 | 60.2 | 34.3 | 883.9 |
| Pachora | 23.9 | 26.2 | 28.1 | 36.2 | 40.2 | 53.7 | 57.4 | 63.2 | 74.5 | 76.5 | 73.3 | 82.0 | 72.5 | 74.6 | 59.3 | 33.7 | 875.5 |
| Bhadgaon | 24.0 | 26.3 | 28.1 | 36.4 | 40.3 | 53.8 | 57.5 | 63.4 | 74.9 | 76.7 | 73.6 | 82.8 | 72.0 | 75.4 | 59.9 | 34.1 | 879.4 |
| Chalisgaon | 23.6 | 26.0 | 27.7 | 35.9 | 39.7 | 53.2 | 56.9 | 62.8 | 74.2 | 76.0 | 72.8 | 81.5 | 72.4 | 74.2 | 59.1 | 33.6 | 869.7 |

Table No. B-21: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 18.1 | 19.7 | 21.1 | 27.2 | 30.3 | 40.3 | 43.2 | 47.5 | 55.9 | 57.5 | 55.1 | 61.5 | 54.6 | 55.9 | 44.3 | 25.2 | 657.4 |
| Jamner | 18.0 | 19.5 | 21.1 | 26.9 | 30.3 | 40.1 | 43.1 | 47.2 | 55.4 | 57.2 | 54.7 | 60.6 | 55.1 | 54.9 | 43.5 | 24.7 | 652.5 |
| Erandol | 18.2 | 19.8 | 21.1 | 27.5 | 30.3 | 40.5 | 43.3 | 47.7 | 56.4 | 57.7 | 55.5 | 62.5 | 53.9 | 56.9 | 45.2 | 25.7 | 662.2 |
| Dharangaon | 18.2 | 19.9 | 21.2 | 27.6 | 30.3 | 40.6 | 43.4 | 47.9 | 56.6 | 57.9 | 55.7 | 62.9 | 53.6 | 57.4 | 45.5 | 26.0 | 664.8 |
| Bhusaval | 18.0 | 19.6 | 21.2 | 27.0 | 30.4 | 40.2 | 43.2 | 47.3 | 55.6 | 57.3 | 54.9 | 60.9 | 55.0 | 55.2 | 43.7 | 24.8 | 654.4 |
| Raver | 18.1 | 19.6 | 21.3 | 26.9 | 30.5 | 40.2 | 43.2 | 47.2 | 55.4 | 57.3 | 54.8 | 60.6 | 55.3 | 54.9 | 43.4 | 24.6 | 653.3 |
| Muktainagar | 18.0 | 19.5 | 21.2 | 26.9 | 30.5 | 40.1 | 43.2 | 47.2 | 55.3 | 57.2 | 54.8 | 60.5 | 55.4 | 54.7 | 43.3 | 24.5 | 652.3 |
| Bodwad | 18.0 | 19.5 | 21.2 | 26.8 | 30.5 | 40.1 | 43.2 | 47.2 | 55.3 | 57.2 | 54.7 | 60.4 | 55.4 | 54.6 | 43.2 | 24.5 | 651.7 |
| Yawal | 18.1 | 19.6 | 21.2 | 27.1 | 30.4 | 40.3 | 43.2 | 47.4 | 55.7 | 57.4 | 55.0 | 61.2 | 54.8 | 55.6 | 44.0 | 25.0 | 656.0 |
| Amalner | 18.5 | 20.1 | 21.2 | 28.0 | 30.4 | 40.9 | 43.6 | 48.3 | 57.3 | 58.3 | 56.3 | 64.3 | 52.6 | 58.7 | 46.6 | 26.7 | 671.6 |
| Parola | 18.3 | 20.0 | 21.2 | 27.9 | 30.4 | 40.8 | 43.5 | 48.1 | 57.0 | 58.1 | 56.0 | 63.7 | 53.0 | 58.2 | 46.2 | 26.4 | 669.1 |
| Chopda | 18.2 | 19.8 | 21.2 | 27.5 | 30.4 | 40.6 | 43.4 | 47.8 | 56.4 | 57.8 | 55.5 | 62.5 | 53.9 | 57.0 | 45.2 | 25.7 | 662.9 |
| Pachora | 18.0 | 19.6 | 21.0 | 27.1 | 30.2 | 40.2 | 43.1 | 47.4 | 55.9 | 57.4 | 55.0 | 61.5 | 54.4 | 56.0 | 44.5 | 25.3 | 656.6 |
| Bhadgaon | 18.0 | 19.7 | 21.1 | 27.3 | 30.2 | 40.4 | 43.2 | 47.6 | 56.2 | 57.5 | 55.2 | 62.1 | 54.0 | 56.5 | 44.9 | 25.6 | 659.5 |
| Chalisgaon | 17.7 | 19.5 | 20.8 | 26.9 | 29.8 | 39.9 | 42.7 | 47.1 | 55.7 | 57.0 | 54.6 | 61.1 | 54.3 | 55.6 | 44.4 | 25.2 | 652.3 |

Table No. B-22: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 17.0 | 18.5 | 19.9 | 25.6 | 28.5 | 37.9 | 40.7 | 44.7 | 52.6 | 54.1 | 51.9 | 57.9 | 51.3 | 52.6 | 41.7 | 23.7 | 618.7 |
| Jamner | 16.9 | 18.4 | 19.9 | 25.3 | 28.6 | 37.7 | 40.6 | 44.4 | 52.2 | 53.8 | 51.5 | 57.0 | 51.9 | 51.7 | 41.0 | 23.2 | 614.1 |
| Erandol | 17.1 | 18.6 | 19.9 | 25.9 | 28.5 | 38.1 | 40.8 | 44.9 | 53.1 | 54.3 | 52.2 | 58.8 | 50.7 | 53.6 | 42.5 | 24.2 | 623.3 |
| Dharangaon | 17.2 | 18.7 | 19.9 | 26.0 | 28.6 | 38.3 | 40.9 | 45.1 | 53.3 | 54.5 | 52.4 | 59.2 | 50.5 | 54.0 | 42.9 | 24.4 | 625.7 |
| Bhusaval | 17.0 | 18.4 | 19.9 | 25.4 | 28.6 | 37.8 | 40.6 | 44.5 | 52.3 | 53.9 | 51.7 | 57.3 | 51.8 | 52.0 | 41.2 | 23.4 | 615.9 |
| Raver | 17.0 | 18.4 | 20.0 | 25.3 | 28.7 | 37.8 | 40.7 | 44.5 | 52.2 | 53.9 | 51.6 | 57.1 | 52.1 | 51.7 | 40.8 | 23.1 | 614.8 |
| Muktainagar | 17.0 | 18.4 | 20.0 | 25.3 | 28.7 | 37.8 | 40.7 | 44.4 | 52.1 | 53.8 | 51.5 | 56.9 | 52.1 | 51.5 | 40.7 | 23.1 | 614.0 |
| Bodwad | 16.9 | 18.4 | 20.0 | 25.3 | 28.7 | 37.7 | 40.6 | 44.4 | 52.0 | 53.8 | 51.5 | 56.8 | 52.1 | 51.4 | 40.7 | 23.0 | 613.4 |
| Yawal | 17.0 | 18.5 | 19.9 | 25.5 | 28.6 | 37.9 | 40.7 | 44.6 | 52.5 | 54.0 | 51.8 | 57.6 | 51.6 | 52.3 | 41.4 | 23.5 | 617.4 |
| Amalner | 17.4 | 18.9 | 19.9 | 26.4 | 28.6 | 38.5 | 41.0 | 45.4 | 53.9 | 54.8 | 52.9 | 60.5 | 49.5 | 55.2 | 43.9 | 25.1 | 632.1 |
| Parola | 17.3 | 18.8 | 19.9 | 26.3 | 28.6 | 38.4 | 41.0 | 45.3 | 53.7 | 54.7 | 52.7 | 60.0 | 49.9 | 54.8 | 43.5 | 24.9 | 629.8 |
| Chopda | 17.1 | 18.6 | 19.9 | 25.9 | 28.6 | 38.2 | 40.8 | 45.0 | 53.1 | 54.4 | 52.3 | 58.9 | 50.8 | 53.6 | 42.5 | 24.2 | 623.9 |
| Pachora | 16.9 | 18.5 | 19.8 | 25.5 | 28.4 | 37.9 | 40.5 | 44.6 | 52.6 | 54.0 | 51.8 | 57.9 | 51.2 | 52.7 | 41.9 | 23.8 | 618.0 |
| Bhadgaon | 17.0 | 18.6 | 19.8 | 25.7 | 28.4 | 38.0 | 40.6 | 44.8 | 52.9 | 54.1 | 52.0 | 58.4 | 50.9 | 53.2 | 42.3 | 24.1 | 620.7 |
| Chalisgaon | 16.7 | 18.3 | 19.6 | 25.3 | 28.1 | 37.6 | 40.2 | 44.3 | 52.4 | 53.6 | 51.4 | 57.5 | 51.1 | 52.4 | 41.8 | 23.7 | 613.9 |

Table No. B-23: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 16.1 | 17.5 | 18.8 | 24.2 | 27.0 | 35.8 | 38.4 | 42.2 | 49.7 | 51.1 | 49.0 | 54.7 | 48.5 | 49.7 | 39.4 | 22.4 | 584.3 |
| Jamner | 16.0 | 17.4 | 18.8 | 23.9 | 27.0 | 35.6 | 38.3 | 41.9 | 49.3 | 50.8 | 48.6 | 53.9 | 49.0 | 48.8 | 38.7 | 21.9 | 580.0 |
| Erandol | 16.1 | 17.6 | 18.8 | 24.4 | 26.9 | 36.0 | 38.5 | 42.4 | 50.1 | 51.3 | 49.3 | 55.5 | 47.9 | 50.6 | 40.2 | 22.9 | 588.6 |
| Dharangaon | 16.2 | 17.7 | 18.8 | 24.6 | 27.0 | 36.1 | 38.6 | 42.6 | 50.3 | 51.4 | 49.5 | 55.9 | 47.7 | 51.0 | 40.5 | 23.1 | 590.9 |
| Bhusaval | 16.0 | 17.4 | 18.8 | 24.0 | 27.0 | 35.7 | 38.4 | 42.0 | 49.4 | 50.9 | 48.8 | 54.2 | 48.9 | 49.1 | 38.9 | 22.1 | 581.7 |
| Raver | 16.0 | 17.4 | 18.9 | 23.9 | 27.1 | 35.7 | 38.4 | 42.0 | 49.3 | 50.9 | 48.7 | 53.9 | 49.2 | 48.8 | 38.6 | 21.9 | 580.7 |
| Muktainagar | 16.0 | 17.4 | 18.9 | 23.9 | 27.1 | 35.7 | 38.4 | 42.0 | 49.2 | 50.8 | 48.7 | 53.7 | 49.2 | 48.6 | 38.5 | 21.8 | 579.9 |
| Bodwad | 16.0 | 17.4 | 18.9 | 23.8 | 27.1 | 35.6 | 38.4 | 41.9 | 49.1 | 50.8 | 48.6 | 53.7 | 49.2 | 48.6 | 38.4 | 21.8 | 579.3 |
| Yawal | 16.1 | 17.4 | 18.8 | 24.1 | 27.0 | 35.8 | 38.4 | 42.1 | 49.5 | 51.0 | 48.9 | 54.4 | 48.7 | 49.4 | 39.1 | 22.2 | 583.1 |
| Amalner | 16.4 | 17.8 | 18.8 | 24.9 | 27.0 | 36.4 | 38.8 | 42.9 | 50.9 | 51.8 | 50.0 | 57.1 | 46.8 | 52.2 | 41.4 | 23.7 | 597.0 |
| Parola | 16.3 | 17.8 | 18.8 | 24.8 | 27.0 | 36.3 | 38.7 | 42.8 | 50.7 | 51.7 | 49.8 | 56.7 | 47.1 | 51.7 | 41.1 | 23.5 | 594.8 |
| Chopda | 16.2 | 17.6 | 18.8 | 24.5 | 27.0 | 36.1 | 38.6 | 42.5 | 50.2 | 51.4 | 49.4 | 55.6 | 47.9 | 50.6 | 40.1 | 22.9 | 589.2 |
| Pachora | 16.0 | 17.5 | 18.7 | 24.1 | 26.8 | 35.8 | 38.3 | 42.1 | 49.7 | 51.0 | 48.9 | 54.7 | 48.3 | 49.8 | 39.5 | 22.5 | 583.6 |
| Bhadgaon | 16.0 | 17.5 | 18.7 | 24.3 | 26.8 | 35.9 | 38.4 | 42.3 | 50.0 | 51.1 | 49.1 | 55.2 | 48.0 | 50.3 | 39.9 | 22.7 | 586.2 |
| Chalisgaon | 15.8 | 17.3 | 18.5 | 23.9 | 26.5 | 35.5 | 37.9 | 41.9 | 49.5 | 50.6 | 48.5 | 54.4 | 48.3 | 49.5 | 39.4 | 22.4 | 579.8 |

Table No. B-24: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Jalgaon District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Jalgaon | 15.2 | 16.6 | 17.8 | 22.9 | 25.5 | 33.9 | 36.4 | 40.0 | 47.1 | 48.4 | 46.4 | 51.8 | 45.9 | 47.1 | 37.3 | 21.2 | 553.6 |
| Jamner | 15.1 | 16.5 | 17.8 | 22.6 | 25.6 | 33.8 | 36.3 | 39.7 | 46.7 | 48.1 | 46.1 | 51.0 | 46.4 | 46.3 | 36.7 | 20.8 | 549.5 |
| Erandol | 15.3 | 16.7 | 17.8 | 23.1 | 25.5 | 34.1 | 36.5 | 40.2 | 47.5 | 48.6 | 46.7 | 52.6 | 45.4 | 47.9 | 38.0 | 21.7 | 557.7 |
| Dharangaon | 15.4 | 16.7 | 17.8 | 23.3 | 25.6 | 34.2 | 36.6 | 40.3 | 47.7 | 48.7 | 46.9 | 53.0 | 45.1 | 48.3 | 38.3 | 21.9 | 559.8 |
| Bhusaval | 15.2 | 16.5 | 17.8 | 22.7 | 25.6 | 33.9 | 36.4 | 39.8 | 46.8 | 48.2 | 46.2 | 51.3 | 46.3 | 46.5 | 36.8 | 20.9 | 551.0 |
| Raver | 15.2 | 16.5 | 17.9 | 22.7 | 25.7 | 33.8 | 36.4 | 39.8 | 46.7 | 48.2 | 46.2 | 51.0 | 46.6 | 46.2 | 36.5 | 20.7 | 550.1 |
| Muktainagar | 15.2 | 16.5 | 17.9 | 22.6 | 25.7 | 33.8 | 36.4 | 39.7 | 46.6 | 48.2 | 46.1 | 50.9 | 46.7 | 46.1 | 36.4 | 20.6 | 549.3 |
| Bodwad | 15.2 | 16.4 | 17.9 | 22.6 | 25.7 | 33.8 | 36.3 | 39.7 | 46.6 | 48.1 | 46.1 | 50.8 | 46.7 | 46.0 | 36.4 | 20.6 | 548.8 |
| Yawal | 15.2 | 16.5 | 17.8 | 22.8 | 25.6 | 33.9 | 36.4 | 39.9 | 46.9 | 48.3 | 46.3 | 51.6 | 46.2 | 46.8 | 37.1 | 21.0 | 552.4 |
| Amalner | 15.5 | 16.9 | 17.8 | 23.6 | 25.6 | 34.5 | 36.7 | 40.7 | 48.2 | 49.1 | 47.4 | 54.1 | 44.3 | 49.4 | 39.3 | 22.5 | 565.6 |
| Parola | 15.5 | 16.8 | 17.8 | 23.5 | 25.6 | 34.4 | 36.7 | 40.5 | 48.0 | 48.9 | 47.2 | 53.7 | 44.7 | 49.0 | 38.9 | 22.3 | 563.5 |
| Chopda | 15.3 | 16.7 | 17.8 | 23.2 | 25.6 | 34.2 | 36.5 | 40.2 | 47.5 | 48.7 | 46.8 | 52.7 | 45.4 | 48.0 | 38.0 | 21.7 | 558.2 |
| Pachora | 15.1 | 16.5 | 17.7 | 22.9 | 25.4 | 33.9 | 36.3 | 39.9 | 47.1 | 48.3 | 46.3 | 51.8 | 45.8 | 47.1 | 37.4 | 21.3 | 552.9 |
| Bhadgaon | 15.2 | 16.6 | 17.7 | 23.0 | 25.4 | 34.0 | 36.3 | 40.1 | 47.3 | 48.4 | 46.5 | 52.3 | 45.5 | 47.6 | 37.8 | 21.5 | 555.4 |
| Chalisgaon | 14.9 | 16.4 | 17.5 | 22.7 | 25.1 | 33.6 | 35.9 | 39.7 | 46.9 | 48.0 | 46.0 | 51.5 | 45.8 | 46.9 | 37.4 | 21.2 | 549.3 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods Ignoring Effective Rainfall of Rabi Gram in Kolhapur District

Table No. B-25: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 15.9 | 16.4 | 18.9 | 22.0 | 26.5 | 32.7 | 35.9 | 40.6 | 44.5 | 46.5 | 46.4 | 46.4 | 44.4 | 40.9 | 31.2 | 17.2 | 526.4 |
| Kagal | 16.3 | 16.5 | 19.4 | 22.4 | 26.9 | 33.7 | 36.2 | 40.5 | 44.7 | 47.2 | 46.3 | 45.5 | 44.6 | 41.6 | 32.2 | 17.3 | 531.4 |
| Shahuwadi | 16.0 | 16.6 | 19.5 | 23.0 | 26.4 | 32.3 | 36.1 | 39.7 | 44.3 | 47.1 | 47.3 | 48.0 | 46.2 | 41.2 | 31.0 | 17.7 | 532.3 |
| Panhala | 16.3 | 16.4 | 19.3 | 22.4 | 26.6 | 33.2 | 36.0 | 40.1 | 44.2 | 46.8 | 46.4 | 46.2 | 44.9 | 41.2 | 31.6 | 17.4 | 528.9 |
| Karvir | 16.4 | 16.6 | 19.5 | 22.5 | 27.0 | 34.0 | 36.4 | 40.6 | 45.0 | 47.5 | 46.4 | 45.4 | 44.9 | 42.0 | 32.6 | 17.4 | 534.2 |
| Gaganbawada | 16.0 | 15.2 | 17.6 | 20.2 | 24.1 | 30.5 | 33.0 | 36.4 | 40.6 | 42.1 | 44.1 | 44.4 | 42.1 | 37.5 | 27.2 | 16.7 | 487.6 |
| Hatkangale | 16.2 | 15.4 | 18.1 | 21.0 | 25.3 | 31.7 | 34.1 | 38.7 | 40.6 | 43.7 | 44.9 | 45.6 | 42.6 | 38.4 | 28.9 | 17.0 | 502.1 |
| Shirol | 16.0 | 14.9 | 17.6 | 20.4 | 24.6 | 30.9 | 33.1 | 37.9 | 39.0 | 42.2 | 44.3 | 45.6 | 41.7 | 37.0 | 27.5 | 16.8 | 489.4 |
| Bhudargad | 15.7 | 16.5 | 18.6 | 21.6 | 26.5 | 32.2 | 35.8 | 41.3 | 44.9 | 46.3 | 46.5 | 46.6 | 44.0 | 40.5 | 30.7 | 17.0 | 524.7 |
| Gadhinglaj | 15.4 | 16.8 | 18.3 | 21.2 | 26.6 | 31.7 | 35.9 | 42.5 | 45.9 | 46.3 | 46.7 | 46.6 | 43.5 | 40.2 | 30.3 | 16.8 | 524.8 |
| Chandgad | 15.6 | 16.5 | 18.5 | 21.5 | 26.5 | 32.0 | 35.8 | 41.4 | 45.0 | 46.2 | 46.5 | 46.7 | 44.0 | 40.4 | 30.6 | 17.0 | 524.0 |
| Ajara | 15.5 | 16.7 | 18.4 | 21.3 | 26.6 | 31.9 | 35.8 | 42.0 | 45.4 | 46.2 | 46.6 | 46.6 | 43.7 | 40.3 | 30.5 | 16.9 | 524.4 |

Table No. B-26: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 39.8 | 41.1 | 47.3 | 55.0 | 66.3 | 81.7 | 89.7 | 101.5 | 111.2 | 116.3 | 115.9 | 115.9 | 111.1 | 102.2 | 78.0 | 43.1 | 1316.1 |
| Kagal | 40.9 | 41.3 | 48.5 | 55.9 | 67.2 | 84.2 | 90.5 | 101.2 | 111.7 | 118.0 | 115.8 | 113.8 | 111.6 | 104.0 | 80.6 | 43.3 | 1328.5 |
| Shahuwadi | 39.9 | 41.4 | 48.7 | 57.6 | 66.0 | 80.8 | 90.2 | 99.3 | 110.7 | 117.7 | 118.2 | 120.0 | 115.6 | 102.9 | 77.5 | 44.3 | 1330.7 |
| Panhala | 40.7 | 41.0 | 48.3 | 56.1 | 66.5 | 82.9 | 90.0 | 100.2 | 110.4 | 117.1 | 116.1 | 115.4 | 112.2 | 103.0 | 79.0 | 43.5 | 1322.3 |
| Karvir | 41.0 | 41.5 | 48.9 | 56.3 | 67.5 | 84.9 | 91.1 | 101.4 | 112.5 | 118.8 | 116.1 | 113.5 | 112.1 | 104.9 | 81.5 | 43.5 | 1335.5 |
| Gaganbawada | 39.9 | 38.0 | 43.9 | 50.4 | 60.2 | 76.3 | 82.5 | 91.0 | 101.5 | 105.3 | 110.3 | 111.0 | 105.3 | 93.8 | 68.0 | 41.8 | 1218.9 |
| Hatkangale | 40.6 | 38.4 | 45.4 | 52.5 | 63.1 | 79.3 | 85.1 | 96.7 | 101.6 | 109.3 | 112.3 | 113.9 | 106.5 | 96.0 | 72.2 | 42.4 | 1255.2 |
| Shirol | 40.0 | 37.1 | 44.0 | 51.0 | 61.4 | 77.2 | 82.8 | 94.9 | 97.4 | 105.6 | 110.7 | 114.0 | 104.2 | 92.6 | 68.7 | 42.0 | 1223.6 |
| Bhudargad | 39.1 | 41.4 | 46.5 | 53.9 | 66.2 | 80.4 | 89.5 | 103.3 | 112.4 | 115.7 | 116.2 | 116.4 | 110.0 | 101.2 | 76.8 | 42.6 | 1311.7 |
| Gadhinglaj | 38.6 | 41.9 | 45.8 | 52.9 | 66.6 | 79.3 | 89.7 | 106.3 | 114.7 | 115.7 | 116.8 | 116.5 | 108.9 | 100.5 | 75.9 | 41.9 | 1311.9 |
| Chandgad | 38.9 | 41.3 | 46.3 | 53.7 | 66.1 | 80.0 | 89.4 | 103.5 | 112.4 | 115.4 | 116.2 | 116.7 | 109.9 | 101.0 | 76.4 | 42.5 | 1310.0 |
| Ajara | 38.8 | 41.6 | 46.1 | 53.3 | 66.4 | 79.7 | 89.6 | 104.9 | 113.5 | 115.6 | 116.5 | 116.5 | 109.4 | 100.8 | 76.2 | 42.2 | 1311.1 |

Table No. B-27: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 31.9 | 32.9 | 37.8 | 44.0 | 53.0 | 65.4 | 71.7 | 81.2 | 89.0 | 93.0 | 92.8 | 92.8 | 88.9 | 81.8 | 62.4 | 34.5 | 1052.9 |
| Kagal | 32.7 | 33.0 | 38.8 | 44.7 | 53.7 | 67.3 | 72.4 | 81.0 | 89.4 | 94.4 | 92.7 | 91.0 | 89.3 | 83.2 | 64.5 | 34.7 | 1062.8 |
| Shahuwadi | 31.9 | 33.1 | 38.9 | 46.1 | 52.8 | 64.7 | 72.2 | 79.4 | 88.5 | 94.1 | 94.5 | 96.0 | 92.5 | 82.3 | 62.0 | 35.4 | 1064.6 |
| Panhala | 32.6 | 32.8 | 38.6 | 44.8 | 53.2 | 66.3 | 72.0 | 80.1 | 88.3 | 93.6 | 92.9 | 92.3 | 89.8 | 82.4 | 63.2 | 34.8 | 1057.8 |
| Karvir | 32.8 | 33.2 | 39.1 | 45.1 | 54.0 | 67.9 | 72.8 | 81.1 | 90.0 | 95.1 | 92.9 | 90.8 | 89.7 | 83.9 | 65.2 | 34.8 | 1068.4 |
| Gaganbawada | 31.9 | 30.4 | 35.1 | 40.3 | 48.2 | 61.0 | 66.0 | 72.8 | 81.2 | 84.2 | 88.2 | 88.8 | 84.2 | 75.0 | 54.4 | 33.4 | 975.1 |
| Hatkangale | 32.5 | 30.7 | 36.3 | 42.0 | 50.5 | 63.4 | 68.1 | 77.4 | 81.3 | 87.4 | 89.8 | 91.2 | 85.2 | 76.8 | 57.8 | 33.9 | 1004.2 |
| Shirol | 32.0 | 29.7 | 35.2 | 40.8 | 49.2 | 61.7 | 66.3 | 75.9 | 77.9 | 84.5 | 88.6 | 91.2 | 83.3 | 74.1 | 54.9 | 33.6 | 978.9 |
| Bhudargad | 31.3 | 33.1 | 37.2 | 43.1 | 53.0 | 64.3 | 71.6 | 82.7 | 89.9 | 92.5 | 93.0 | 93.1 | 88.0 | 81.0 | 61.4 | 34.1 | 1049.4 |
| Gadhinglaj | 30.9 | 33.6 | 36.7 | 42.3 | 53.3 | 63.4 | 71.8 | 85.1 | 91.8 | 92.6 | 93.5 | 93.2 | 87.1 | 80.4 | 60.7 | 33.5 | 1049.5 |
| Chandgad | 31.1 | 33.1 | 37.0 | 43.0 | 52.9 | 64.0 | 71.5 | 82.8 | 89.9 | 92.3 | 93.0 | 93.4 | 87.9 | 80.8 | 61.1 | 34.0 | 1048.0 |
| Ajara | 31.0 | 33.3 | 36.9 | 42.7 | 53.1 | 63.8 | 71.6 | 83.9 | 90.8 | 92.5 | 93.2 | 93.2 | 87.5 | 80.6 | 60.9 | 33.8 | 1048.9 |

Table No. B-28: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 26.6 | 27.4 | 31.5 | 36.6 | 44.2 | 54.5 | 59.8 | 67.6 | 74.1 | 77.5 | 77.3 | 77.3 | 74.1 | 68.2 | 52.0 | 28.7 | 877.4 |
| Kagal | 27.2 | 27.5 | 32.3 | 37.3 | 44.8 | 56.1 | 60.4 | 67.5 | 74.5 | 78.6 | 77.2 | 75.8 | 74.4 | 69.4 | 53.7 | 28.9 | 885.6 |
| Shahuwadi | 26.6 | 27.6 | 32.5 | 38.4 | 44.0 | 53.9 | 60.2 | 66.2 | 73.8 | 78.4 | 78.8 | 80.0 | 77.1 | 68.6 | 51.6 | 29.5 | 887.1 |
| Panhala | 27.1 | 27.4 | 32.2 | 37.4 | 44.3 | 55.3 | 60.0 | 66.8 | 73.6 | 78.0 | 77.4 | 76.9 | 74.8 | 68.7 | 52.7 | 29.0 | 881.5 |
| Karvir | 27.3 | 27.7 | 32.6 | 37.5 | 45.0 | 56.6 | 60.7 | 67.6 | 75.0 | 79.2 | 77.4 | 75.7 | 74.8 | 69.9 | 54.4 | 29.0 | 890.3 |
| Gaganbawada | 26.6 | 25.3 | 29.3 | 33.6 | 40.2 | 50.8 | 55.0 | 60.7 | 67.7 | 70.2 | 73.5 | 74.0 | 70.2 | 62.5 | 45.3 | 27.8 | 812.6 |
| Hatkangale | 27.1 | 25.6 | 30.2 | 35.0 | 42.1 | 52.8 | 56.8 | 64.5 | 67.7 | 72.9 | 74.9 | 76.0 | 71.0 | 64.0 | 48.1 | 28.3 | 836.8 |
| Shirol | 26.7 | 24.8 | 29.3 | 34.0 | 41.0 | 51.4 | 55.2 | 63.2 | 64.9 | 70.4 | 73.8 | 76.0 | 69.4 | 61.7 | 45.8 | 28.0 | 815.7 |
| Bhudargad | 26.1 | 27.6 | 31.0 | 36.0 | 44.2 | 53.6 | 59.7 | 68.9 | 74.9 | 77.1 | 77.5 | 77.6 | 73.4 | 67.5 | 51.2 | 28.4 | 874.5 |
| Gadhinglaj | 25.7 | 28.0 | 30.6 | 35.3 | 44.4 | 52.9 | 59.8 | 70.9 | 76.5 | 77.1 | 77.9 | 77.7 | 72.6 | 67.0 | 50.6 | 27.9 | 874.6 |
| Chandgad | 26.0 | 27.6 | 30.9 | 35.8 | 44.1 | 53.4 | 59.6 | 69.0 | 74.9 | 77.0 | 77.5 | 77.8 | 73.3 | 67.3 | 50.9 | 28.4 | 873.3 |
| Ajara | 25.9 | 27.8 | 30.7 | 35.5 | 44.3 | 53.2 | 59.7 | 69.9 | 75.7 | 77.1 | 77.7 | 77.7 | 72.9 | 67.2 | 50.8 | 28.1 | 874.1 |

Table No. B-29: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 19.9 | 20.6 | 23.7 | 27.5 | 33.1 | 40.8 | 44.8 | 50.7 | 55.6 | 58.1 | 58.0 | 58.0 | 55.6 | 51.1 | 39.0 | 21.6 | 658.0 |
| Kagal | 20.4 | 20.6 | 24.2 | 28.0 | 33.6 | 42.1 | 45.3 | 50.6 | 55.9 | 59.0 | 57.9 | 56.9 | 55.8 | 52.0 | 40.3 | 21.7 | 664.2 |
| Shahuwadi | 20.0 | 20.7 | 24.3 | 28.8 | 33.0 | 40.4 | 45.1 | 49.6 | 55.3 | 58.8 | 59.1 | 60.0 | 57.8 | 51.4 | 38.7 | 22.1 | 665.3 |
| Panhala | 20.4 | 20.5 | 24.1 | 28.0 | 33.2 | 41.5 | 45.0 | 50.1 | 55.2 | 58.5 | 58.0 | 57.7 | 56.1 | 51.5 | 39.5 | 21.8 | 661.1 |
| Karvir | 20.5 | 20.8 | 24.4 | 28.2 | 33.8 | 42.4 | 45.5 | 50.7 | 56.2 | 59.4 | 58.0 | 56.8 | 56.1 | 52.5 | 40.8 | 21.7 | 667.7 |
| Gaganbawada | 20.0 | 19.0 | 22.0 | 25.2 | 30.1 | 38.1 | 41.3 | 45.5 | 50.8 | 52.6 | 55.1 | 55.5 | 52.6 | 46.9 | 34.0 | 20.9 | 609.5 |
| Hatkangale | 20.3 | 19.2 | 22.7 | 26.3 | 31.6 | 39.6 | 42.6 | 48.3 | 50.8 | 54.7 | 56.1 | 57.0 | 53.2 | 48.0 | 36.1 | 21.2 | 627.6 |
| Shirol | 20.0 | 18.6 | 22.0 | 25.5 | 30.7 | 38.6 | 41.4 | 47.4 | 48.7 | 52.8 | 55.4 | 57.0 | 52.1 | 46.3 | 34.3 | 21.0 | 611.8 |
| Bhudargad | 19.6 | 20.7 | 23.3 | 27.0 | 33.1 | 40.2 | 44.7 | 51.7 | 56.2 | 57.8 | 58.1 | 58.2 | 55.0 | 50.6 | 38.4 | 21.3 | 655.8 |
| Gadhinglaj | 19.3 | 21.0 | 22.9 | 26.4 | 33.3 | 39.6 | 44.8 | 53.2 | 57.3 | 57.8 | 58.4 | 58.2 | 54.4 | 50.2 | 37.9 | 20.9 | 655.9 |
| Chandgad | 19.5 | 20.7 | 23.1 | 26.9 | 33.1 | 40.0 | 44.7 | 51.8 | 56.2 | 57.7 | 58.1 | 58.4 | 55.0 | 50.5 | 38.2 | 21.3 | 655.0 |
| Ajara | 19.4 | 20.8 | 23.0 | 26.7 | 33.2 | 39.9 | 44.8 | 52.5 | 56.8 | 57.8 | 58.3 | 58.3 | 54.7 | 50.4 | 38.1 | 21.1 | 655.5 |

Table No. B-30: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 18.7 | 19.3 | 22.3 | 25.9 | 31.2 | 38.4 | 42.2 | 47.7 | 52.3 | 54.7 | 54.6 | 54.6 | 52.3 | 48.1 | 36.7 | 20.3 | 619.3 |
| Kagal | 19.2 | 19.4 | 22.8 | 26.3 | 31.6 | 39.6 | 42.6 | 47.6 | 52.6 | 55.5 | 54.5 | 53.5 | 52.5 | 49.0 | 37.9 | 20.4 | 625.2 |
| Shahuwadi | 18.8 | 19.5 | 22.9 | 27.1 | 31.1 | 38.0 | 42.5 | 46.7 | 52.1 | 55.4 | 55.6 | 56.5 | 54.4 | 48.4 | 36.5 | 20.8 | 626.2 |
| Panhala | 19.2 | 19.3 | 22.7 | 26.4 | 31.3 | 39.0 | 42.3 | 47.1 | 51.9 | 55.1 | 54.6 | 54.3 | 52.8 | 48.5 | 37.2 | 20.5 | 622.2 |
| Karvir | 19.3 | 19.5 | 23.0 | 26.5 | 31.8 | 39.9 | 42.9 | 47.7 | 52.9 | 55.9 | 54.6 | 53.4 | 52.8 | 49.4 | 38.4 | 20.5 | 628.5 |
| Gaganbawada | 18.8 | 17.9 | 20.7 | 23.7 | 28.3 | 35.9 | 38.8 | 42.8 | 47.8 | 49.5 | 51.9 | 52.2 | 49.5 | 44.1 | 32.0 | 19.6 | 573.6 |
| Hatkangale | 19.1 | 18.1 | 21.3 | 24.7 | 29.7 | 37.3 | 40.1 | 45.5 | 47.8 | 51.4 | 52.8 | 53.6 | 50.1 | 45.2 | 34.0 | 20.0 | 590.7 |
| Shirol | 18.8 | 17.5 | 20.7 | 24.0 | 28.9 | 36.3 | 39.0 | 44.6 | 45.8 | 49.7 | 52.1 | 53.7 | 49.0 | 43.6 | 32.3 | 19.8 | 575.8 |
| Bhudargad | 18.4 | 19.5 | 21.9 | 25.4 | 31.2 | 37.8 | 42.1 | 48.6 | 52.9 | 54.4 | 54.7 | 54.8 | 51.8 | 47.6 | 36.1 | 20.0 | 617.3 |
| Gadhinglaj | 18.2 | 19.7 | 21.6 | 24.9 | 31.3 | 37.3 | 42.2 | 50.0 | 54.0 | 54.4 | 55.0 | 54.8 | 51.2 | 47.3 | 35.7 | 19.7 | 617.4 |
| Chandgad | 18.3 | 19.5 | 21.8 | 25.3 | 31.1 | 37.7 | 42.1 | 48.7 | 52.9 | 54.3 | 54.7 | 54.9 | 51.7 | 47.5 | 36.0 | 20.0 | 616.5 |
| Ajara | 18.3 | 19.6 | 21.7 | 25.1 | 31.2 | 37.5 | 42.1 | 49.4 | 53.4 | 54.4 | 54.8 | 54.8 | 51.5 | 47.4 | 35.9 | 19.9 | 617.0 |

Table No. B-31: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 17.7 | 18.3 | 21.0 | 24.4 | 29.5 | 36.3 | 39.9 | 45.1 | 49.4 | 51.7 | 51.5 | 51.5 | 49.4 | 45.4 | 34.7 | 19.2 | 584.9 |
| Kagal | 18.2 | 18.4 | 21.5 | 24.8 | 29.8 | 37.4 | 40.2 | 45.0 | 49.7 | 52.4 | 51.5 | 50.6 | 49.6 | 46.2 | 35.8 | 19.3 | 590.4 |
| Shahuwadi | 17.7 | 18.4 | 21.6 | 25.6 | 29.3 | 35.9 | 40.1 | 44.1 | 49.2 | 52.3 | 52.5 | 53.3 | 51.4 | 45.7 | 34.4 | 19.7 | 591.4 |
| Panhala | 18.1 | 18.2 | 21.4 | 24.9 | 29.5 | 36.9 | 40.0 | 44.5 | 49.1 | 52.0 | 51.6 | 51.3 | 49.9 | 45.8 | 35.1 | 19.3 | 587.7 |
| Karvir | 18.2 | 18.5 | 21.7 | 25.0 | 30.0 | 37.7 | 40.5 | 45.1 | 50.0 | 52.8 | 51.6 | 50.4 | 49.8 | 46.6 | 36.2 | 19.3 | 593.6 |
| Gaganbawada | 17.7 | 16.9 | 19.5 | 22.4 | 26.8 | 33.9 | 36.7 | 40.4 | 45.1 | 46.8 | 49.0 | 49.3 | 46.8 | 41.7 | 30.2 | 18.6 | 541.7 |
| Hatkangale | 18.0 | 17.1 | 20.2 | 23.3 | 28.1 | 35.2 | 37.8 | 43.0 | 45.2 | 48.6 | 49.9 | 50.6 | 47.3 | 42.7 | 32.1 | 18.8 | 557.9 |
| Shirol | 17.8 | 16.5 | 19.5 | 22.7 | 27.3 | 34.3 | 36.8 | 42.2 | 43.3 | 46.9 | 49.2 | 50.7 | 46.3 | 41.2 | 30.5 | 18.7 | 543.8 |
| Bhudargad | 17.4 | 18.4 | 20.7 | 24.0 | 29.4 | 35.7 | 39.8 | 45.9 | 49.9 | 51.4 | 51.6 | 51.7 | 48.9 | 45.0 | 34.1 | 18.9 | 583.0 |
| Gadhinglaj | 17.2 | 18.6 | 20.4 | 23.5 | 29.6 | 35.2 | 39.9 | 47.3 | 51.0 | 51.4 | 51.9 | 51.8 | 48.4 | 44.7 | 33.7 | 18.6 | 583.1 |
| Chandgad | 17.3 | 18.4 | 20.6 | 23.9 | 29.4 | 35.6 | 39.7 | 46.0 | 50.0 | 51.3 | 51.6 | 51.9 | 48.8 | 44.9 | 34.0 | 18.9 | 582.2 |
| Ajara | 17.2 | 18.5 | 20.5 | 23.7 | 29.5 | 35.4 | 39.8 | 46.6 | 50.5 | 51.4 | 51.8 | 51.8 | 48.6 | 44.8 | 33.9 | 18.8 | 582.7 |

Table No. B-32: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 95% efficiency in Kolhapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Radhanagari | 16.8 | 17.3 | 19.9 | 23.1 | 27.9 | 34.4 | 37.8 | 42.7 | 46.8 | 48.9 | 48.8 | 48.8 | 46.8 | 43.0 | 32.8 | 18.2 | 554.1 |
| Kagal | 17.2 | 17.4 | 20.4 | 23.5 | 28.3 | 35.4 | 38.1 | 42.6 | 47.0 | 49.7 | 48.8 | 47.9 | 47.0 | 43.8 | 33.9 | 18.2 | 559.4 |
| Shahuwadi | 16.8 | 17.4 | 20.5 | 24.2 | 27.8 | 34.0 | 38.0 | 41.8 | 46.6 | 49.5 | 49.8 | 50.5 | 48.7 | 43.3 | 32.6 | 18.6 | 560.3 |
| Panhala | 17.1 | 17.3 | 20.3 | 23.6 | 28.0 | 34.9 | 37.9 | 42.2 | 46.5 | 49.3 | 48.9 | 48.6 | 47.2 | 43.4 | 33.3 | 18.3 | 556.7 |
| Karvir | 17.3 | 17.5 | 20.6 | 23.7 | 28.4 | 35.7 | 38.3 | 42.7 | 47.4 | 50.0 | 48.9 | 47.8 | 47.2 | 44.2 | 34.3 | 18.3 | 562.3 |
| Gaganbawada | 16.8 | 16.0 | 18.5 | 21.2 | 25.4 | 32.1 | 34.7 | 38.3 | 42.7 | 44.3 | 46.4 | 46.7 | 44.3 | 39.5 | 28.6 | 17.6 | 513.2 |
| Hatkangale | 17.1 | 16.2 | 19.1 | 22.1 | 26.6 | 33.4 | 35.8 | 40.7 | 42.8 | 46.0 | 47.3 | 48.0 | 44.8 | 40.4 | 30.4 | 17.9 | 528.5 |
| Shirol | 16.9 | 15.6 | 18.5 | 21.5 | 25.9 | 32.5 | 34.9 | 39.9 | 41.0 | 44.5 | 46.6 | 48.0 | 43.9 | 39.0 | 28.9 | 17.7 | 515.2 |
| Bhudargad | 16.5 | 17.4 | 19.6 | 22.7 | 27.9 | 33.8 | 37.7 | 43.5 | 47.3 | 48.7 | 48.9 | 49.0 | 46.3 | 42.6 | 32.3 | 17.9 | 552.3 |
| Gadhinglaj | 16.3 | 17.7 | 19.3 | 22.3 | 28.0 | 33.4 | 37.8 | 44.8 | 48.3 | 48.7 | 49.2 | 49.1 | 45.8 | 42.3 | 31.9 | 17.6 | 552.4 |
| Chandgad | 16.4 | 17.4 | 19.5 | 22.6 | 27.9 | 33.7 | 37.6 | 43.6 | 47.3 | 48.6 | 48.9 | 49.2 | 46.3 | 42.5 | 32.2 | 17.9 | 551.6 |
| Ajara | 16.3 | 17.5 | 19.4 | 22.5 | 27.9 | 33.6 | 37.7 | 44.2 | 47.8 | 48.7 | 49.1 | 49.1 | 46.0 | 42.4 | 32.1 | 17.8 | 552.0 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods of Rabi Gram Ignoring Effective Rainfall in Nandurbar District

Table No. B-33: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 14.4 | 15.6 | 16.8 | 21.5 | 24.1 | 32.0 | 34.4 | 37.8 | 44.4 | 45.8 | 43.8 | 48.8 | 44.0 | 44.3 | 35.1 | 19.9 | 522.9 |
| Navapur | 14.3 | 15.5 | 16.8 | 21.4 | 24.0 | 31.8 | 34.4 | 37.6 | 44.2 | 45.8 | 43.5 | 48.4 | 44.6 | 43.9 | 34.8 | 19.7 | 520.6 |
| Taloda | 14.5 | 15.6 | 16.8 | 21.7 | 24.1 | 32.1 | 34.5 | 37.9 | 44.6 | 45.9 | 44.0 | 49.2 | 43.8 | 44.6 | 35.4 | 20.1 | 524.7 |
| Akkalkuva | 14.4 | 15.6 | 16.8 | 21.5 | 24.1 | 32.0 | 34.4 | 37.8 | 44.4 | 45.8 | 43.8 | 48.8 | 44.1 | 44.2 | 35.1 | 19.9 | 522.7 |
| Akrani | 14.5 | 15.6 | 16.8 | 21.6 | 24.1 | 32.0 | 34.4 | 37.8 | 44.4 | 45.8 | 43.8 | 48.9 | 44.0 | 44.3 | 35.1 | 19.9 | 523.0 |
| Shahada | 14.5 | 15.6 | 16.8 | 21.5 | 24.2 | 32.1 | 34.5 | 37.7 | 44.5 | 45.7 | 43.6 | 48.7 | 44.1 | 44.2 | 35.6 | 19.4 | 522.7 |

Table No. B-34: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 36.1 | 38.9 | 42.0 | 53.9 | 60.3 | 80.0 | 86.1 | 94.5 | 111.1 | 114.5 | 109.6 | 122.1 | 110.1 | 110.7 | 87.7 | 49.7 | 1307.2 |
| Navapur | 35.9 | 38.7 | 41.9 | 53.5 | 59.9 | 79.6 | 85.9 | 94.0 | 110.6 | 114.4 | 108.8 | 121.0 | 111.6 | 109.8 | 86.9 | 49.2 | 1301.6 |
| Taloda | 36.2 | 39.1 | 42.0 | 54.1 | 60.3 | 80.2 | 86.2 | 94.7 | 111.5 | 114.8 | 109.9 | 122.9 | 109.5 | 111.6 | 88.5 | 50.2 | 1311.8 |
| Akkalkuva | 36.1 | 38.9 | 42.0 | 53.8 | 60.2 | 79.9 | 86.1 | 94.4 | 111.0 | 114.5 | 109.4 | 122.0 | 110.3 | 110.6 | 87.6 | 49.7 | 1306.6 |
| Akrani | 36.1 | 39.0 | 42.1 | 53.9 | 60.3 | 80.0 | 86.1 | 94.5 | 111.1 | 114.5 | 109.6 | 122.2 | 110.0 | 110.7 | 87.7 | 49.7 | 1307.5 |
| Shahada | 36.3 | 39.0 | 42.1 | 53.7 | 60.4 | 80.3 | 86.3 | 94.3 | 111.3 | 114.3 | 109.0 | 121.8 | 110.3 | 110.5 | 89.0 | 48.5 | 1306.7 |

Table No. B-35: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 28.9 | 31.2 | 33.6 | 43.1 | 48.2 | 64.0 | 68.9 | 75.6 | 88.8 | 91.6 | 87.6 | 97.7 | 88.1 | 88.5 | 70.1 | 39.8 | 1045.7 |
| Navapur | 28.7 | 30.9 | 33.5 | 42.8 | 48.0 | 63.7 | 68.7 | 75.2 | 88.4 | 91.5 | 87.1 | 96.8 | 89.3 | 87.8 | 69.5 | 39.4 | 1041.3 |
| Taloda | 28.9 | 31.3 | 33.6 | 43.3 | 48.2 | 64.2 | 69.0 | 75.8 | 89.2 | 91.8 | 87.9 | 98.3 | 87.6 | 89.3 | 70.8 | 40.2 | 1049.4 |
| Akkalkuva | 28.8 | 31.1 | 33.6 | 43.1 | 48.2 | 64.0 | 68.8 | 75.5 | 88.8 | 91.6 | 87.6 | 97.6 | 88.3 | 88.5 | 70.1 | 39.7 | 1045.3 |
| Akrani | 28.9 | 31.2 | 33.6 | 43.1 | 48.2 | 64.0 | 68.9 | 75.6 | 88.9 | 91.6 | 87.7 | 97.7 | 88.0 | 88.6 | 70.2 | 39.8 | 1046.0 |
| Shahada | 29.0 | 31.2 | 33.7 | 43.0 | 48.3 | 64.2 | 69.0 | 75.4 | 89.0 | 91.4 | 87.2 | 97.4 | 88.2 | 88.4 | 71.2 | 38.8 | 1045.3 |

Table No. B-36: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 60% efficiency in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 24.1 | 26.0 | 28.0 | 35.9 | 40.2 | 53.3 | 57.4 | 63.0 | 74.0 | 76.4 | 73.0 | 81.4 | 73.4 | 73.8 | 58.4 | 33.1 | 871.4 |
| Navapur | 23.9 | 25.8 | 27.9 | 35.7 | 40.0 | 53.1 | 57.3 | 62.7 | 73.7 | 76.3 | 72.5 | 80.7 | 74.4 | 73.2 | 58.0 | 32.8 | 867.7 |
| Taloda | 24.1 | 26.1 | 28.0 | 36.1 | 40.2 | 53.5 | 57.5 | 63.1 | 74.3 | 76.5 | 73.3 | 81.9 | 73.0 | 74.4 | 59.0 | 33.5 | 874.5 |
| Akkalkuva | 24.0 | 25.9 | 28.0 | 35.9 | 40.1 | 53.3 | 57.4 | 62.9 | 74.0 | 76.4 | 73.0 | 81.3 | 73.6 | 73.7 | 58.4 | 33.1 | 871.1 |
| Akrani | 24.1 | 26.0 | 28.0 | 35.9 | 40.2 | 53.4 | 57.4 | 63.0 | 74.1 | 76.4 | 73.1 | 81.4 | 73.3 | 73.8 | 58.5 | 33.2 | 871.7 |
| Shahada | 24.2 | 26.0 | 28.1 | 35.8 | 40.3 | 53.5 | 57.5 | 62.8 | 74.2 | 76.2 | 72.7 | 81.2 | 73.5 | 73.7 | 59.3 | 32.3 | 871.1 |

Table No. B-37: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 18.1 | 19.5 | 21.0 | 26.9 | 30.1 | 40.0 | 43.0 | 47.2 | 55.5 | 57.3 | 54.8 | 61.0 | 55.0 | 55.3 | 43.8 | 24.8 | 653.6 |
| Navapur | 17.9 | 19.3 | 21.0 | 26.7 | 30.0 | 39.8 | 42.9 | 47.0 | 55.3 | 57.2 | 54.4 | 60.5 | 55.8 | 54.9 | 43.5 | 24.6 | 650.8 |
| Taloda | 18.1 | 19.5 | 21.0 | 27.1 | 30.1 | 40.1 | 43.1 | 47.4 | 55.8 | 57.4 | 54.9 | 61.5 | 54.8 | 55.8 | 44.2 | 25.1 | 655.9 |
| Akkalkuva | 18.0 | 19.5 | 21.0 | 26.9 | 30.1 | 40.0 | 43.0 | 47.2 | 55.5 | 57.3 | 54.7 | 61.0 | 55.2 | 55.3 | 43.8 | 24.8 | 653.3 |
| Akrani | 18.1 | 19.5 | 21.0 | 26.9 | 30.2 | 40.0 | 43.1 | 47.3 | 55.5 | 57.3 | 54.8 | 61.1 | 55.0 | 55.4 | 43.9 | 24.9 | 653.8 |
| Shahada | 18.1 | 19.5 | 21.0 | 26.9 | 30.2 | 40.1 | 43.1 | 47.1 | 55.6 | 57.1 | 54.5 | 60.9 | 55.1 | 55.3 | 44.5 | 24.3 | 653.3 |

Table No. B-38: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 17.0 | 18.3 | 19.8 | 25.3 | 28.4 | 37.6 | 40.5 | 44.5 | 52.3 | 53.9 | 51.6 | 57.5 | 51.8 | 52.1 | 41.3 | 23.4 | 615.1 |
| Navapur | 16.9 | 18.2 | 19.7 | 25.2 | 28.2 | 37.5 | 40.4 | 44.2 | 52.0 | 53.8 | 51.2 | 56.9 | 52.5 | 51.7 | 40.9 | 23.1 | 612.5 |
| Taloda | 17.0 | 18.4 | 19.8 | 25.5 | 28.4 | 37.8 | 40.6 | 44.6 | 52.5 | 54.0 | 51.7 | 57.8 | 51.5 | 52.5 | 41.6 | 23.6 | 617.3 |
| Akkalkuva | 17.0 | 18.3 | 19.8 | 25.3 | 28.3 | 37.6 | 40.5 | 44.4 | 52.2 | 53.9 | 51.5 | 57.4 | 51.9 | 52.1 | 41.2 | 23.4 | 614.9 |
| Akrani | 17.0 | 18.3 | 19.8 | 25.4 | 28.4 | 37.7 | 40.5 | 44.5 | 52.3 | 53.9 | 51.6 | 57.5 | 51.7 | 52.1 | 41.3 | 23.4 | 615.3 |
| Shahada | 17.1 | 18.4 | 19.8 | 25.3 | 28.4 | 37.8 | 40.6 | 44.4 | 52.4 | 53.8 | 51.3 | 57.3 | 51.9 | 52.0 | 41.9 | 22.8 | 614.9 |

Table No. B-39: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 16.0 | 17.3 | 18.7 | 23.9 | 26.8 | 35.6 | 38.3 | 42.0 | 49.4 | 50.9 | 48.7 | 54.3 | 48.9 | 49.2 | 39.0 | 22.1 | 581.0 |
| Navapur | 15.9 | 17.2 | 18.6 | 23.8 | 26.6 | 35.4 | 38.2 | 41.8 | 49.1 | 50.8 | 48.4 | 53.8 | 49.6 | 48.8 | 38.6 | 21.9 | 578.5 |
| Taloda | 16.1 | 17.4 | 18.7 | 24.1 | 26.8 | 35.7 | 38.3 | 42.1 | 49.6 | 51.0 | 48.8 | 54.6 | 48.7 | 49.6 | 39.3 | 22.3 | 583.0 |
| Akkalkuva | 16.0 | 17.3 | 18.7 | 23.9 | 26.8 | 35.5 | 38.2 | 42.0 | 49.3 | 50.9 | 48.6 | 54.2 | 49.0 | 49.2 | 38.9 | 22.1 | 580.7 |
| Akrani | 16.1 | 17.3 | 18.7 | 24.0 | 26.8 | 35.6 | 38.3 | 42.0 | 49.4 | 50.9 | 48.7 | 54.3 | 48.9 | 49.2 | 39.0 | 22.1 | 581.1 |
| Shahada | 16.1 | 17.3 | 18.7 | 23.9 | 26.8 | 35.7 | 38.3 | 41.9 | 49.4 | 50.8 | 48.4 | 54.1 | 49.0 | 49.1 | 39.6 | 21.6 | 580.7 |

Table No. B-40: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 95% efficiency in Nandurbar District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nandurbar | 15.2 | 16.4 | 17.7 | 22.7 | 25.4 | 33.7 | 36.2 | 39.8 | 46.8 | 48.2 | 46.1 | 51.4 | 46.4 | 46.6 | 36.9 | 20.9 | 550.4 |
| Navapur | 15.1 | 16.3 | 17.6 | 22.5 | 25.2 | 33.5 | 36.2 | 39.6 | 46.6 | 48.2 | 45.8 | 50.9 | 47.0 | 46.2 | 36.6 | 20.7 | 548.0 |
| Taloda | 15.2 | 16.5 | 17.7 | 22.8 | 25.4 | 33.8 | 36.3 | 39.9 | 47.0 | 48.3 | 46.3 | 51.8 | 46.1 | 47.0 | 37.2 | 21.1 | 552.3 |
| Akkalkuva | 15.2 | 16.4 | 17.7 | 22.7 | 25.3 | 33.7 | 36.2 | 39.8 | 46.7 | 48.2 | 46.1 | 51.4 | 46.5 | 46.6 | 36.9 | 20.9 | 550.2 |
| Akrani | 15.2 | 16.4 | 17.7 | 22.7 | 25.4 | 33.7 | 36.3 | 39.8 | 46.8 | 48.2 | 46.2 | 51.4 | 46.3 | 46.6 | 36.9 | 20.9 | 550.5 |
| Shahada | 15.3 | 16.4 | 17.7 | 22.6 | 25.4 | 33.8 | 36.3 | 39.7 | 46.8 | 48.1 | 45.9 | 51.3 | 46.4 | 46.5 | 37.5 | 20.4 | 550.2 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods of Rabi Gram Ignoring Effective Rainfall in Nashik District

Table No. B-41: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 14.3 | 15.2 | 16.6 | 21.3 | 23.6 | 31.5 | 34.3 | 37.2 | 44.2 | 46.2 | 42.9 | 47.8 | 46.4 | 43.5 | 34.3 | 19.4 | 518.7 |
| Igatpuri | 13.9 | 15.2 | 15.9 | 21.5 | 23.6 | 30.6 | 33.4 | 36.8 | 45.2 | 46.6 | 42.4 | 48.2 | 46.1 | 42.4 | 33.4 | 19.1 | 514.3 |
| Dindori | 14.5 | 15.2 | 16.8 | 21.3 | 23.6 | 31.8 | 34.7 | 37.3 | 44.0 | 46.3 | 43.0 | 47.9 | 46.7 | 44.1 | 34.8 | 19.7 | 521.7 |
| Peth | 14.2 | 15.3 | 16.6 | 21.2 | 23.8 | 31.4 | 34.2 | 37.3 | 44.1 | 46.0 | 43.0 | 47.7 | 45.9 | 43.1 | 34.0 | 19.2 | 517.1 |
| Trimbakeshwar | 14.0 | 15.2 | 16.3 | 21.3 | 23.8 | 31.1 | 33.8 | 37.1 | 44.5 | 46.2 | 42.7 | 47.9 | 46.0 | 42.7 | 33.7 | 19.1 | 515.5 |
| Kalwan | 14.4 | 15.3 | 16.8 | 21.3 | 23.6 | 31.8 | 34.5 | 37.3 | 44.0 | 46.0 | 43.1 | 48.0 | 46.0 | 44.1 | 34.9 | 19.7 | 520.9 |
| Deola | 14.4 | 15.3 | 16.8 | 21.3 | 23.5 | 31.8 | 34.6 | 37.3 | 44.0 | 46.0 | 43.0 | 47.9 | 46.1 | 44.2 | 35.0 | 19.8 | 521.2 |
| Surgana | 14.3 | 15.3 | 16.7 | 21.2 | 23.8 | 31.6 | 34.3 | 37.4 | 44.0 | 45.9 | 43.2 | 47.8 | 45.7 | 43.4 | 34.3 | 19.4 | 518.4 |
| Baglan | 14.3 | 15.5 | 16.7 | 21.4 | 23.8 | 31.9 | 34.4 | 37.6 | 44.3 | 45.9 | 43.4 | 48.5 | 44.8 | 44.4 | 35.2 | 19.9 | 522.1 |
| Malegaon | 14.3 | 15.6 | 16.7 | 21.6 | 23.8 | 32.0 | 34.3 | 37.7 | 44.7 | 45.9 | 43.7 | 49.2 | 43.9 | 44.9 | 35.8 | 20.3 | 524.5 |
| Nandgaon | 13.6 | 15.3 | 16.4 | 20.9 | 23.3 | 31.4 | 33.6 | 37.0 | 43.8 | 44.9 | 42.7 | 47.4 | 44.6 | 43.2 | 34.6 | 19.5 | 512.1 |
| Chandwad | 14.4 | 15.2 | 16.8 | 21.2 | 23.4 | 31.8 | 34.6 | 37.3 | 43.9 | 46.1 | 42.9 | 47.8 | 46.5 | 44.3 | 35.1 | 19.8 | 521.3 |
| Niphad | 15.3 | 15.3 | 17.3 | 21.7 | 23.5 | 32.5 | 35.9 | 37.7 | 44.2 | 47.4 | 43.4 | 48.6 | 48.2 | 46.0 | 36.1 | 20.5 | 533.5 |
| Sinnar | 14.2 | 15.2 | 16.7 | 21.1 | 23.4 | 31.6 | 34.4 | 37.1 | 43.9 | 45.9 | 42.7 | 47.5 | 46.6 | 43.7 | 34.6 | 19.5 | 518.0 |
| Yeola | 12.3 | 14.8 | 15.7 | 20.1 | 22.4 | 30.5 | 32.2 | 35.8 | 43.0 | 43.4 | 41.2 | 45.7 | 45.1 | 41.4 | 33.7 | 18.8 | 496.2 |

Table No. B-42: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 35.7 | 38.1 | 41.5 | 53.2 | 59.0 | 78.7 | 85.8 | 93.0 | 110.4 | 115.5 | 107.1 | 119.4 | 116.1 | 108.7 | 85.9 | 48.6 | 1296.7 |
| Igatpuri | 34.7 | 38.0 | 39.7 | 53.8 | 59.1 | 76.5 | 83.5 | 92.0 | 113.0 | 116.6 | 105.9 | 120.6 | 115.3 | 106.0 | 83.5 | 47.8 | 1285.8 |
| Dindori | 36.2 | 38.1 | 42.0 | 53.3 | 58.9 | 79.4 | 86.7 | 93.3 | 110.1 | 115.7 | 107.5 | 119.7 | 116.7 | 110.3 | 87.1 | 49.2 | 1304.2 |
| Peth | 35.5 | 38.2 | 41.5 | 53.1 | 59.5 | 78.6 | 85.4 | 93.1 | 110.3 | 114.9 | 107.5 | 119.4 | 114.8 | 107.7 | 85.0 | 48.1 | 1292.7 |
| Trimbakeshwar | 35.1 | 38.1 | 40.8 | 53.3 | 59.4 | 77.7 | 84.6 | 92.7 | 111.4 | 115.5 | 106.9 | 119.7 | 115.0 | 106.7 | 84.2 | 47.8 | 1288.8 |
| Kalwan | 35.9 | 38.2 | 42.0 | 53.2 | 59.0 | 79.5 | 86.4 | 93.4 | 110.1 | 115.0 | 107.7 | 119.9 | 115.1 | 110.3 | 87.3 | 49.4 | 1302.4 |
| Deola | 35.9 | 38.2 | 42.0 | 53.2 | 58.8 | 79.6 | 86.4 | 93.3 | 110.0 | 115.1 | 107.6 | 119.9 | 115.3 | 110.6 | 87.6 | 49.5 | 1303.0 |
| Surgana | 35.7 | 38.3 | 41.8 | 53.1 | 59.4 | 79.0 | 85.8 | 93.4 | 110.1 | 114.7 | 107.9 | 119.5 | 114.2 | 108.6 | 85.9 | 48.5 | 1295.9 |
| Baglan | 35.8 | 38.6 | 41.9 | 53.6 | 59.4 | 79.8 | 86.0 | 93.9 | 110.8 | 114.7 | 108.6 | 121.3 | 112.1 | 110.9 | 88.0 | 49.9 | 1305.3 |
| Malegaon | 35.7 | 39.0 | 41.8 | 54.1 | 59.5 | 80.1 | 85.9 | 94.4 | 111.7 | 114.7 | 109.3 | 122.9 | 109.7 | 112.3 | 89.4 | 50.8 | 1311.3 |
| Nandgaon | 34.0 | 38.1 | 40.9 | 52.3 | 58.3 | 78.5 | 83.9 | 92.4 | 109.5 | 112.2 | 106.7 | 118.6 | 111.5 | 108.0 | 86.5 | 48.8 | 1280.1 |
| Chandwad | 35.9 | 38.1 | 42.0 | 53.1 | 58.5 | 79.6 | 86.6 | 93.1 | 109.8 | 115.2 | 107.3 | 119.5 | 116.3 | 110.8 | 87.8 | 49.6 | 1303.3 |
| Niphad | 38.2 | 38.2 | 43.4 | 54.2 | 58.7 | 81.1 | 89.7 | 94.3 | 110.6 | 118.5 | 108.5 | 121.4 | 120.5 | 115.0 | 90.2 | 51.1 | 1333.7 |
| Sinnar | 35.5 | 37.9 | 41.7 | 52.8 | 58.6 | 78.9 | 85.9 | 92.7 | 109.7 | 114.8 | 106.8 | 118.7 | 116.4 | 109.2 | 86.5 | 48.8 | 1295.0 |
| Yeola | 30.7 | 37.0 | 39.3 | 50.3 | 56.0 | 76.2 | 80.5 | 89.6 | 107.5 | 108.4 | 103.0 | 114.2 | 112.8 | 103.6 | 84.2 | 47.0 | 1240.5 |

Table No. B-43: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 28.5 | 30.5 | 33.2 | 42.6 | 47.2 | 62.9 | 68.6 | 74.4 | 88.4 | 92.4 | 85.7 | 95.6 | 92.9 | 87.0 | 68.7 | 38.9 | 1037.4 |
| Igatpuri | 27.7 | 30.4 | 31.8 | 43.0 | 47.3 | 61.2 | 66.8 | 73.6 | 90.4 | 93.3 | 84.7 | 96.5 | 92.2 | 84.8 | 66.8 | 38.2 | 1028.6 |
| Dindori | 29.0 | 30.5 | 33.6 | 42.6 | 47.2 | 63.5 | 69.4 | 74.6 | 88.1 | 92.6 | 86.0 | 95.8 | 93.3 | 88.2 | 69.6 | 39.4 | 1043.4 |
| Peth | 28.4 | 30.6 | 33.2 | 42.5 | 47.6 | 62.9 | 68.3 | 74.5 | 88.3 | 91.9 | 86.0 | 95.5 | 91.8 | 86.2 | 68.0 | 38.5 | 1034.2 |
| Trimbakeshwar | 28.1 | 30.5 | 32.6 | 42.7 | 47.5 | 62.1 | 67.7 | 74.1 | 89.1 | 92.4 | 85.5 | 95.8 | 92.0 | 85.4 | 67.3 | 38.2 | 1031.0 |
| Kalwan | 28.7 | 30.6 | 33.6 | 42.6 | 47.2 | 63.6 | 69.1 | 74.7 | 88.1 | 92.0 | 86.2 | 95.9 | 92.1 | 88.2 | 69.9 | 39.5 | 1041.9 |
| Deola | 28.7 | 30.6 | 33.6 | 42.6 | 47.0 | 63.6 | 69.1 | 74.7 | 88.0 | 92.0 | 86.1 | 95.9 | 92.3 | 88.5 | 70.1 | 39.6 | 1042.4 |
| Surgana | 28.5 | 30.7 | 33.4 | 42.5 | 47.5 | 63.2 | 68.6 | 74.7 | 88.1 | 91.7 | 86.3 | 95.6 | 91.4 | 86.9 | 68.7 | 38.8 | 1036.7 |
| Baglan | 28.6 | 30.9 | 33.5 | 42.9 | 47.5 | 63.8 | 68.8 | 75.1 | 88.6 | 91.8 | 86.9 | 97.0 | 89.7 | 88.7 | 70.4 | 39.9 | 1044.2 |
| Malegaon | 28.6 | 31.2 | 33.4 | 43.3 | 47.6 | 64.1 | 68.7 | 75.5 | 89.3 | 91.7 | 87.5 | 98.4 | 87.8 | 89.9 | 71.5 | 40.6 | 1049.0 |
| Nandgaon | 27.2 | 30.5 | 32.7 | 41.9 | 46.7 | 62.8 | 67.1 | 73.9 | 87.6 | 89.8 | 85.3 | 94.9 | 89.2 | 86.4 | 69.2 | 39.0 | 1024.1 |
| Chandwad | 28.7 | 30.5 | 33.6 | 42.5 | 46.8 | 63.7 | 69.3 | 74.5 | 87.9 | 92.1 | 85.8 | 95.6 | 93.0 | 88.6 | 70.2 | 39.7 | 1042.6 |
| Niphad | 30.5 | 30.6 | 34.7 | 43.4 | 47.0 | 64.9 | 71.8 | 75.4 | 88.5 | 94.8 | 86.8 | 97.1 | 96.4 | 92.0 | 72.2 | 40.9 | 1067.0 |
| Sinnar | 28.4 | 30.3 | 33.3 | 42.3 | 46.9 | 63.2 | 68.7 | 74.2 | 87.7 | 91.9 | 85.4 | 95.0 | 93.1 | 87.3 | 69.2 | 39.1 | 1036.0 |
| Yeola | 24.6 | 29.6 | 31.5 | 40.2 | 44.8 | 61.0 | 64.4 | 71.6 | 86.0 | 86.7 | 82.4 | 91.4 | 90.3 | 82.9 | 67.4 | 37.6 | 992.4 |

Table No. B-44: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 60% efficiency in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 23.8 | 25.4 | 27.7 | 35.5 | 39.3 | 52.5 | 57.2 | 62.0 | 73.6 | 77.0 | 71.4 | 79.6 | 77.4 | 72.5 | 57.2 | 32.4 | 864.5 |
| Igatpuri | 23.1 | 25.3 | 26.5 | 35.8 | 39.4 | 51.0 | 55.6 | 61.3 | 75.3 | 77.7 | 70.6 | 80.4 | 76.8 | 70.7 | 55.7 | 31.9 | 857.2 |
| Dindori | 24.1 | 25.4 | 28.0 | 35.5 | 39.3 | 53.0 | 57.8 | 62.2 | 73.4 | 77.1 | 71.7 | 79.8 | 77.8 | 73.5 | 58.0 | 32.8 | 869.5 |
| Peth | 23.7 | 25.5 | 27.7 | 35.4 | 39.7 | 52.4 | 57.0 | 62.1 | 73.6 | 76.6 | 71.7 | 79.6 | 76.5 | 71.8 | 56.7 | 32.1 | 861.8 |
| Trimbakeshwar | 23.4 | 25.4 | 27.2 | 35.6 | 39.6 | 51.8 | 56.4 | 61.8 | 74.2 | 77.0 | 71.2 | 79.8 | 76.7 | 71.1 | 56.1 | 31.9 | 859.2 |
| Kalwan | 24.0 | 25.5 | 28.0 | 35.5 | 39.3 | 53.0 | 57.6 | 62.2 | 73.4 | 76.7 | 71.8 | 79.9 | 76.7 | 73.5 | 58.2 | 32.9 | 868.2 |
| Deola | 23.9 | 25.5 | 28.0 | 35.5 | 39.2 | 53.0 | 57.6 | 62.2 | 73.3 | 76.7 | 71.7 | 79.9 | 76.9 | 73.7 | 58.4 | 33.0 | 868.7 |
| Surgana | 23.8 | 25.5 | 27.9 | 35.4 | 39.6 | 52.7 | 57.2 | 62.3 | 73.4 | 76.5 | 71.9 | 79.7 | 76.1 | 72.4 | 57.2 | 32.3 | 863.9 |
| Baglan | 23.9 | 25.8 | 27.9 | 35.7 | 39.6 | 53.2 | 57.3 | 62.6 | 73.9 | 76.5 | 72.4 | 80.9 | 74.7 | 74.0 | 58.7 | 33.2 | 870.2 |
| Malegaon | 23.8 | 26.0 | 27.8 | 36.1 | 39.7 | 53.4 | 57.2 | 62.9 | 74.4 | 76.4 | 72.9 | 82.0 | 73.2 | 74.9 | 59.6 | 33.8 | 874.2 |
| Nandgaon | 22.7 | 25.4 | 27.3 | 34.9 | 38.9 | 52.3 | 55.9 | 61.6 | 73.0 | 74.8 | 71.1 | 79.1 | 74.3 | 72.0 | 57.7 | 32.5 | 853.4 |
| Chandwad | 24.0 | 25.4 | 28.0 | 35.4 | 39.0 | 53.0 | 57.7 | 62.1 | 73.2 | 76.8 | 71.5 | 79.7 | 77.5 | 73.9 | 58.5 | 33.1 | 868.9 |
| Niphad | 25.4 | 25.5 | 28.9 | 36.1 | 39.2 | 54.1 | 59.8 | 62.8 | 73.7 | 79.0 | 72.3 | 80.9 | 80.4 | 76.7 | 60.1 | 34.1 | 889.2 |
| Sinnar | 23.7 | 25.3 | 27.8 | 35.2 | 39.0 | 52.6 | 57.3 | 61.8 | 73.1 | 76.6 | 71.2 | 79.2 | 77.6 | 72.8 | 57.6 | 32.6 | 863.4 |
| Yeola | 20.5 | 24.7 | 26.2 | 33.5 | 37.3 | 50.8 | 53.7 | 59.7 | 71.6 | 72.3 | 68.7 | 76.2 | 75.2 | 69.1 | 56.1 | 31.3 | 827.0 |

Table No. B-45: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 17.8 | 19.0 | 20.8 | 26.6 | 29.5 | 39.3 | 42.9 | 46.5 | 55.2 | 57.7 | 53.6 | 59.7 | 58.0 | 54.4 | 42.9 | 24.3 | 648.4 |
| Igatpuri | 17.3 | 19.0 | 19.9 | 26.9 | 29.5 | 38.2 | 41.7 | 46.0 | 56.5 | 58.3 | 53.0 | 60.3 | 57.6 | 53.0 | 41.8 | 23.9 | 642.9 |
| Dindori | 18.1 | 19.1 | 21.0 | 26.6 | 29.5 | 39.7 | 43.4 | 46.6 | 55.1 | 57.9 | 53.7 | 59.8 | 58.3 | 55.1 | 43.5 | 24.6 | 652.1 |
| Peth | 17.7 | 19.1 | 20.8 | 26.6 | 29.7 | 39.3 | 42.7 | 46.6 | 55.2 | 57.5 | 53.8 | 59.7 | 57.4 | 53.9 | 42.5 | 24.0 | 646.4 |
| Trimbakeshwar | 17.5 | 19.1 | 20.4 | 26.7 | 29.7 | 38.8 | 42.3 | 46.3 | 55.7 | 57.8 | 53.4 | 59.9 | 57.5 | 53.4 | 42.1 | 23.9 | 644.4 |
| Kalwan | 18.0 | 19.1 | 21.0 | 26.6 | 29.5 | 39.8 | 43.2 | 46.7 | 55.0 | 57.5 | 53.9 | 59.9 | 57.5 | 55.2 | 43.7 | 24.7 | 651.2 |
| Deola | 18.0 | 19.1 | 21.0 | 26.6 | 29.4 | 39.8 | 43.2 | 46.7 | 55.0 | 57.5 | 53.8 | 59.9 | 57.7 | 55.3 | 43.8 | 24.8 | 651.5 |
| Surgana | 17.8 | 19.2 | 20.9 | 26.6 | 29.7 | 39.5 | 42.9 | 46.7 | 55.0 | 57.3 | 53.9 | 59.8 | 57.1 | 54.3 | 42.9 | 24.3 | 647.9 |
| Baglan | 17.9 | 19.3 | 20.9 | 26.8 | 29.7 | 39.9 | 43.0 | 46.9 | 55.4 | 57.4 | 54.3 | 60.7 | 56.0 | 55.5 | 44.0 | 24.9 | 652.6 |
| Malegaon | 17.8 | 19.5 | 20.9 | 27.0 | 29.8 | 40.1 | 42.9 | 47.2 | 55.8 | 57.3 | 54.7 | 61.5 | 54.9 | 56.2 | 44.7 | 25.4 | 655.6 |
| Nandgaon | 17.0 | 19.1 | 20.5 | 26.2 | 29.2 | 39.2 | 42.0 | 46.2 | 54.7 | 56.1 | 53.3 | 59.3 | 55.7 | 54.0 | 43.2 | 24.4 | 640.1 |
| Chandwad | 18.0 | 19.0 | 21.0 | 26.6 | 29.3 | 39.8 | 43.3 | 46.6 | 54.9 | 57.6 | 53.7 | 59.8 | 58.1 | 55.4 | 43.9 | 24.8 | 651.7 |
| Niphad | 19.1 | 19.1 | 21.7 | 27.1 | 29.4 | 40.6 | 44.8 | 47.1 | 55.3 | 59.3 | 54.2 | 60.7 | 60.3 | 57.5 | 45.1 | 25.6 | 666.9 |
| Sinnar | 17.8 | 19.0 | 20.8 | 26.4 | 29.3 | 39.5 | 43.0 | 46.4 | 54.8 | 57.4 | 53.4 | 59.4 | 58.2 | 54.6 | 43.2 | 24.4 | 647.5 |
| Yeola | 15.4 | 18.5 | 19.7 | 25.1 | 28.0 | 38.1 | 40.2 | 44.8 | 53.7 | 54.2 | 51.5 | 57.1 | 56.4 | 51.8 | 42.1 | 23.5 | 620.2 |

Table No. B-46: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 16.8 | 17.9 | 19.5 | 25.0 | 27.8 | 37.0 | 40.4 | 43.7 | 52.0 | 54.4 | 50.4 | 56.2 | 54.6 | 51.2 | 40.4 | 22.9 | 610.2 |
| Igatpuri | 16.3 | 17.9 | 18.7 | 25.3 | 27.8 | 36.0 | 39.3 | 43.3 | 53.2 | 54.9 | 49.8 | 56.8 | 54.2 | 49.9 | 39.3 | 22.5 | 605.1 |
| Dindori | 17.0 | 17.9 | 19.8 | 25.1 | 27.7 | 37.4 | 40.8 | 43.9 | 51.8 | 54.5 | 50.6 | 56.3 | 54.9 | 51.9 | 41.0 | 23.2 | 613.7 |
| Peth | 16.7 | 18.0 | 19.5 | 25.0 | 28.0 | 37.0 | 40.2 | 43.8 | 51.9 | 54.1 | 50.6 | 56.2 | 54.0 | 50.7 | 40.0 | 22.6 | 608.3 |
| Trimbakeshwar | 16.5 | 17.9 | 19.2 | 25.1 | 28.0 | 36.5 | 39.8 | 43.6 | 52.4 | 54.4 | 50.3 | 56.3 | 54.1 | 50.2 | 39.6 | 22.5 | 606.5 |
| Kalwan | 16.9 | 18.0 | 19.8 | 25.0 | 27.8 | 37.4 | 40.6 | 43.9 | 51.8 | 54.1 | 50.7 | 56.4 | 54.2 | 51.9 | 41.1 | 23.2 | 612.9 |
| Deola | 16.9 | 18.0 | 19.8 | 25.0 | 27.7 | 37.4 | 40.7 | 43.9 | 51.8 | 54.1 | 50.6 | 56.4 | 54.3 | 52.0 | 41.2 | 23.3 | 613.2 |
| Surgana | 16.8 | 18.0 | 19.7 | 25.0 | 28.0 | 37.2 | 40.4 | 43.9 | 51.8 | 54.0 | 50.8 | 56.2 | 53.7 | 51.1 | 40.4 | 22.8 | 609.8 |
| Baglan | 16.8 | 18.2 | 19.7 | 25.2 | 28.0 | 37.5 | 40.5 | 44.2 | 52.1 | 54.0 | 51.1 | 57.1 | 52.8 | 52.2 | 41.4 | 23.5 | 614.3 |
| Malegaon | 16.8 | 18.3 | 19.7 | 25.5 | 28.0 | 37.7 | 40.4 | 44.4 | 52.5 | 54.0 | 51.5 | 57.9 | 51.6 | 52.9 | 42.1 | 23.9 | 617.1 |
| Nandgaon | 16.0 | 17.9 | 19.3 | 24.6 | 27.5 | 36.9 | 39.5 | 43.5 | 51.5 | 52.8 | 50.2 | 55.8 | 52.5 | 50.8 | 40.7 | 22.9 | 602.4 |
| Chandwad | 16.9 | 17.9 | 19.8 | 25.0 | 27.5 | 37.4 | 40.7 | 43.8 | 51.7 | 54.2 | 50.5 | 56.3 | 54.7 | 52.1 | 41.3 | 23.3 | 613.3 |
| Niphad | 18.0 | 18.0 | 20.4 | 25.5 | 27.6 | 38.2 | 42.2 | 44.4 | 52.0 | 55.8 | 51.0 | 57.1 | 56.7 | 54.1 | 42.4 | 24.1 | 627.6 |
| Sinnar | 16.7 | 17.9 | 19.6 | 24.9 | 27.6 | 37.1 | 40.4 | 43.6 | 51.6 | 54.0 | 50.3 | 55.9 | 54.8 | 51.4 | 40.7 | 23.0 | 609.4 |
| Yeola | 14.5 | 17.4 | 18.5 | 23.7 | 26.4 | 35.9 | 37.9 | 42.1 | 50.6 | 51.0 | 48.5 | 53.8 | 53.1 | 48.8 | 39.6 | 22.1 | 583.7 |

Table No. B-47: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 15.9 | 16.9 | 18.5 | 23.6 | 26.2 | 35.0 | 38.1 | 41.3 | 49.1 | 51.3 | 47.6 | 53.1 | 51.6 | 48.3 | 38.2 | 21.6 | 576.3 |
| Igatpuri | 15.4 | 16.9 | 17.7 | 23.9 | 26.3 | 34.0 | 37.1 | 40.9 | 50.2 | 51.8 | 47.1 | 53.6 | 51.2 | 47.1 | 37.1 | 21.2 | 571.5 |
| Dindori | 16.1 | 16.9 | 18.7 | 23.7 | 26.2 | 35.3 | 38.5 | 41.5 | 48.9 | 51.4 | 47.8 | 53.2 | 51.8 | 49.0 | 38.7 | 21.9 | 579.7 |
| Peth | 15.8 | 17.0 | 18.4 | 23.6 | 26.4 | 34.9 | 38.0 | 41.4 | 49.0 | 51.1 | 47.8 | 53.0 | 51.0 | 47.9 | 37.8 | 21.4 | 574.6 |
| Trimbakeshwar | 15.6 | 16.9 | 18.1 | 23.7 | 26.4 | 34.5 | 37.6 | 41.2 | 49.5 | 51.3 | 47.5 | 53.2 | 51.1 | 47.4 | 37.4 | 21.2 | 572.8 |
| Kalwan | 16.0 | 17.0 | 18.7 | 23.6 | 26.2 | 35.3 | 38.4 | 41.5 | 48.9 | 51.1 | 47.9 | 53.3 | 51.1 | 49.0 | 38.8 | 21.9 | 578.8 |
| Deola | 16.0 | 17.0 | 18.7 | 23.6 | 26.1 | 35.4 | 38.4 | 41.5 | 48.9 | 51.1 | 47.8 | 53.3 | 51.3 | 49.2 | 38.9 | 22.0 | 579.1 |
| Surgana | 15.9 | 17.0 | 18.6 | 23.6 | 26.4 | 35.1 | 38.1 | 41.5 | 48.9 | 51.0 | 47.9 | 53.1 | 50.8 | 48.3 | 38.2 | 21.6 | 575.9 |
| Baglan | 15.9 | 17.2 | 18.6 | 23.8 | 26.4 | 35.4 | 38.2 | 41.7 | 49.2 | 51.0 | 48.3 | 53.9 | 49.8 | 49.3 | 39.1 | 22.2 | 580.1 |
| Malegaon | 15.9 | 17.3 | 18.6 | 24.0 | 26.5 | 35.6 | 38.2 | 41.9 | 49.6 | 51.0 | 48.6 | 54.6 | 48.8 | 49.9 | 39.7 | 22.6 | 582.8 |
| Nandgaon | 15.1 | 17.0 | 18.2 | 23.3 | 25.9 | 34.9 | 37.3 | 41.1 | 48.7 | 49.9 | 47.4 | 52.7 | 49.5 | 48.0 | 38.4 | 21.7 | 569.0 |
| Chandwad | 16.0 | 16.9 | 18.7 | 23.6 | 26.0 | 35.4 | 38.5 | 41.4 | 48.8 | 51.2 | 47.7 | 53.1 | 51.7 | 49.2 | 39.0 | 22.0 | 579.2 |
| Niphad | 17.0 | 17.0 | 19.3 | 24.1 | 26.1 | 36.1 | 39.9 | 41.9 | 49.1 | 52.7 | 48.2 | 54.0 | 53.6 | 51.1 | 40.1 | 22.7 | 592.8 |
| Sinnar | 15.8 | 16.9 | 18.5 | 23.5 | 26.0 | 35.1 | 38.2 | 41.2 | 48.7 | 51.0 | 47.5 | 52.8 | 51.7 | 48.5 | 38.4 | 21.7 | 575.6 |
| Yeola | 13.7 | 16.5 | 17.5 | 22.4 | 24.9 | 33.9 | 35.8 | 39.8 | 47.8 | 48.2 | 45.8 | 50.8 | 50.2 | 46.1 | 37.4 | 20.9 | 551.3 |

Table No. B-48: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 95% efficiency in Nashik District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Nashik | 15.0 | 16.0 | 17.5 | 22.4 | 24.8 | 33.1 | 36.1 | 39.1 | 46.5 | 48.6 | 45.1 | 50.3 | 48.9 | 45.8 | 36.2 | 20.5 | 546.0 |
| Igatpuri | 14.6 | 16.0 | 16.7 | 22.6 | 24.9 | 32.2 | 35.1 | 38.7 | 47.6 | 49.1 | 44.6 | 50.8 | 48.5 | 44.6 | 35.2 | 20.1 | 541.4 |
| Dindori | 15.2 | 16.0 | 17.7 | 22.4 | 24.8 | 33.4 | 36.5 | 39.3 | 46.4 | 48.7 | 45.3 | 50.4 | 49.1 | 46.4 | 36.7 | 20.7 | 549.1 |
| Peth | 14.9 | 16.1 | 17.5 | 22.4 | 25.0 | 33.1 | 36.0 | 39.2 | 46.5 | 48.4 | 45.3 | 50.3 | 48.3 | 45.4 | 35.8 | 20.3 | 544.3 |
| Trimbakeshwar | 14.8 | 16.1 | 17.2 | 22.5 | 25.0 | 32.7 | 35.6 | 39.0 | 46.9 | 48.6 | 45.0 | 50.4 | 48.4 | 44.9 | 35.4 | 20.1 | 542.6 |
| Kalwan | 15.1 | 16.1 | 17.7 | 22.4 | 24.8 | 33.5 | 36.4 | 39.3 | 46.3 | 48.4 | 45.3 | 50.5 | 48.5 | 46.4 | 36.8 | 20.8 | 548.4 |
| Deola | 15.1 | 16.1 | 17.7 | 22.4 | 24.8 | 33.5 | 36.4 | 39.3 | 46.3 | 48.4 | 45.3 | 50.5 | 48.6 | 46.6 | 36.9 | 20.9 | 548.6 |
| Surgana | 15.0 | 16.1 | 17.6 | 22.4 | 25.0 | 33.3 | 36.1 | 39.3 | 46.3 | 48.3 | 45.4 | 50.3 | 48.1 | 45.7 | 36.1 | 20.4 | 545.6 |
| Baglan | 15.1 | 16.3 | 17.6 | 22.6 | 25.0 | 33.6 | 36.2 | 39.5 | 46.7 | 48.3 | 45.7 | 51.1 | 47.2 | 46.7 | 37.1 | 21.0 | 549.6 |
| Malegaon | 15.0 | 16.4 | 17.6 | 22.8 | 25.1 | 33.7 | 36.2 | 39.7 | 47.0 | 48.3 | 46.0 | 51.8 | 46.2 | 47.3 | 37.6 | 21.4 | 552.1 |
| Nandgaon | 14.3 | 16.1 | 17.2 | 22.0 | 24.6 | 33.0 | 35.3 | 38.9 | 46.1 | 47.2 | 44.9 | 49.9 | 46.9 | 45.5 | 36.4 | 20.5 | 539.0 |
| Chandwad | 15.1 | 16.0 | 17.7 | 22.4 | 24.6 | 33.5 | 36.5 | 39.2 | 46.2 | 48.5 | 45.2 | 50.3 | 49.0 | 46.7 | 37.0 | 20.9 | 548.8 |
| Niphad | 16.1 | 16.1 | 18.3 | 22.8 | 24.7 | 34.2 | 37.8 | 39.7 | 46.6 | 49.9 | 45.7 | 51.1 | 50.8 | 48.4 | 38.0 | 21.5 | 561.6 |
| Sinnar | 15.0 | 16.0 | 17.5 | 22.2 | 24.7 | 33.2 | 36.2 | 39.1 | 46.2 | 48.4 | 45.0 | 50.0 | 49.0 | 46.0 | 36.4 | 20.6 | 545.3 |
| Yeola | 12.9 | 15.6 | 16.6 | 21.2 | 23.6 | 32.1 | 33.9 | 37.7 | 45.3 | 45.6 | 43.4 | 48.1 | 47.5 | 43.6 | 35.5 | 19.8 | 522.3 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods of Rabi Gram Ignoring Effective Rainfall in Pune District

Table No. B-49: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 15.1 | 16.6 | 18.5 | 22.9 | 26.4 | 34.5 | 37.0 | 39.7 | 47.0 | 48.7 | 46.6 | 50.5 | 46.9 | 44.3 | 34.4 | 18.9 | 548.1 |
| Haveli | 15.1 | 16.5 | 18.5 | 22.9 | 26.3 | 34.4 | 37.0 | 39.7 | 46.9 | 48.6 | 46.5 | 50.5 | 46.8 | 44.3 | 34.4 | 18.9 | 547.4 |
| Khed | 14.7 | 15.5 | 17.9 | 21.6 | 26.0 | 32.9 | 35.9 | 39.1 | 44.3 | 46.2 | 45.4 | 48.8 | 46.0 | 42.9 | 33.4 | 18.6 | 529.1 |
| Junnar | 14.2 | 15.4 | 17.1 | 21.0 | 24.8 | 31.8 | 34.6 | 37.9 | 43.6 | 45.6 | 43.8 | 47.4 | 45.4 | 42.1 | 33.1 | 18.5 | 516.2 |
| Ambegaon | 14.5 | 15.5 | 17.5 | 21.3 | 25.5 | 32.3 | 35.3 | 38.6 | 43.8 | 45.8 | 44.8 | 48.1 | 45.8 | 42.4 | 33.2 | 18.5 | 522.9 |
| Vadgaon Maval | 15.0 | 14.8 | 18.3 | 21.7 | 27.0 | 33.1 | 36.9 | 40.2 | 44.2 | 45.8 | 46.6 | 50.2 | 46.4 | 43.5 | 33.9 | 19.2 | 537.1 |
| Mulshi | 15.1 | 15.7 | 17.8 | 21.4 | 25.9 | 32.7 | 35.4 | 38.9 | 43.8 | 45.9 | 45.4 | 48.7 | 46.0 | 42.7 | 33.1 | 18.2 | 526.8 |
| Shirur | 14.3 | 14.9 | 17.0 | 19.8 | 24.7 | 30.9 | 34.9 | 37.2 | 41.2 | 44.9 | 42.9 | 43.7 | 43.2 | 39.5 | 31.5 | 18.0 | 498.6 |
| Purandar | 15.6 | 16.0 | 18.1 | 22.2 | 25.7 | 33.5 | 35.8 | 39.1 | 45.1 | 46.3 | 45.5 | 49.5 | 45.3 | 43.1 | 32.8 | 18.5 | 532.0 |
| Velhe | 15.2 | 15.5 | 17.3 | 21.4 | 24.9 | 32.2 | 34.8 | 37.9 | 43.5 | 45.4 | 44.7 | 48.1 | 44.7 | 42.0 | 32.5 | 17.9 | 518.0 |
| Bhor | 15.4 | 15.4 | 17.2 | 21.3 | 24.3 | 31.8 | 34.3 | 37.3 | 43.0 | 44.5 | 44.1 | 47.9 | 43.7 | 41.5 | 31.7 | 17.6 | 510.9 |
| Baramati | 15.6 | 16.1 | 18.5 | 22.2 | 25.8 | 33.3 | 35.8 | 39.0 | 44.3 | 45.4 | 45.3 | 49.0 | 44.7 | 42.4 | 31.6 | 18.4 | 527.4 |
| Indapur | 15.5 | 16.1 | 19.0 | 22.6 | 26.8 | 32.8 | 36.5 | 38.6 | 44.0 | 46.5 | 46.0 | 49.1 | 46.5 | 42.6 | 32.1 | 18.4 | 533.1 |
| Daund | 15.0 | 15.6 | 17.8 | 21.2 | 25.3 | 32.2 | 35.3 | 38.2 | 43.0 | 45.1 | 44.3 | 46.8 | 44.2 | 41.2 | 31.6 | 18.2 | 514.8 |

Table No. B-50: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 37.8 | 41.4 | 46.2 | 57.4 | 65.9 | 86.2 | 92.5 | 99.3 | 117.5 | 121.8 | 116.4 | 126.3 | 117.1 | 110.8 | 86.1 | 47.4 | 1370.2 |
| Haveli | 37.7 | 41.3 | 46.2 | 57.3 | 65.9 | 86.1 | 92.4 | 99.3 | 117.3 | 121.6 | 116.3 | 126.2 | 117.0 | 110.6 | 86.0 | 47.3 | 1368.5 |
| Khed | 36.7 | 38.9 | 44.7 | 54.1 | 64.9 | 82.1 | 89.7 | 97.7 | 110.7 | 115.5 | 113.6 | 122.1 | 114.9 | 107.2 | 83.5 | 46.6 | 1322.8 |
| Junnar | 35.5 | 38.4 | 42.6 | 52.6 | 61.9 | 79.5 | 86.5 | 94.7 | 108.9 | 113.9 | 109.6 | 118.4 | 113.5 | 105.2 | 82.7 | 46.4 | 1290.5 |
| Ambegaon | 36.2 | 38.6 | 43.8 | 53.3 | 63.8 | 80.9 | 88.2 | 96.5 | 109.5 | 114.5 | 111.9 | 120.3 | 114.4 | 106.1 | 82.9 | 46.3 | 1307.2 |
| Vadgaon Maval | 37.5 | 37.1 | 45.8 | 54.4 | 67.6 | 82.8 | 92.3 | 100.6 | 110.6 | 114.6 | 116.4 | 125.5 | 116.0 | 108.6 | 84.9 | 47.9 | 1342.7 |
| Mulshi | 37.6 | 39.3 | 44.4 | 53.6 | 64.7 | 81.8 | 88.5 | 97.3 | 109.5 | 114.8 | 113.5 | 121.7 | 115.0 | 106.8 | 82.7 | 45.5 | 1317.0 |
| Shirur | 35.7 | 37.2 | 42.4 | 49.5 | 61.8 | 77.2 | 87.3 | 93.1 | 102.9 | 112.4 | 107.3 | 109.3 | 108.0 | 98.7 | 78.8 | 44.9 | 1246.6 |
| Purandar | 39.0 | 40.1 | 45.3 | 55.5 | 64.1 | 83.7 | 89.6 | 97.7 | 112.9 | 115.7 | 113.7 | 123.8 | 113.2 | 107.7 | 82.0 | 46.3 | 1330.1 |
| Velhe | 37.9 | 38.8 | 43.4 | 53.4 | 62.3 | 80.4 | 87.0 | 94.8 | 108.7 | 113.5 | 111.7 | 120.4 | 111.8 | 104.9 | 81.3 | 44.8 | 1295.0 |
| Bhor | 38.6 | 38.5 | 42.9 | 53.1 | 60.8 | 79.5 | 85.7 | 93.4 | 107.4 | 111.2 | 110.4 | 119.7 | 109.2 | 103.7 | 79.3 | 44.1 | 1277.2 |
| Baramati | 39.0 | 40.1 | 46.2 | 55.4 | 64.6 | 83.2 | 89.4 | 97.6 | 110.8 | 113.6 | 113.3 | 122.5 | 111.8 | 106.1 | 79.0 | 45.9 | 1318.5 |
| Indapur | 38.7 | 40.3 | 47.4 | 56.6 | 67.0 | 82.0 | 91.2 | 96.6 | 110.1 | 116.2 | 114.9 | 122.8 | 116.3 | 106.4 | 80.3 | 46.1 | 1332.9 |
| Daund | 37.6 | 38.9 | 44.4 | 52.9 | 63.3 | 80.6 | 88.2 | 95.4 | 107.4 | 112.9 | 110.7 | 117.1 | 110.4 | 102.9 | 79.0 | 45.4 | 1287.1 |

Table No. B-51: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 30.2 | 33.1 | 37.0 | 45.9 | 52.7 | 69.0 | 74.0 | 79.5 | 94.0 | 97.4 | 93.1 | 101.1 | 93.7 | 88.6 | 68.9 | 37.9 | 1096.2 |
| Haveli | 30.2 | 33.1 | 36.9 | 45.8 | 52.7 | 68.9 | 73.9 | 79.4 | 93.8 | 97.3 | 93.0 | 101.0 | 93.6 | 88.5 | 68.8 | 37.9 | 1094.8 |
| Khed | 29.3 | 31.1 | 35.7 | 43.3 | 51.9 | 65.7 | 71.8 | 78.2 | 88.6 | 92.4 | 90.8 | 97.7 | 91.9 | 85.7 | 66.8 | 37.3 | 1058.2 |
| Junnar | 28.4 | 30.7 | 34.1 | 42.1 | 49.5 | 63.6 | 69.2 | 75.8 | 87.1 | 91.1 | 87.7 | 94.7 | 90.8 | 84.2 | 66.2 | 37.1 | 1032.4 |
| Ambegaon | 28.9 | 30.9 | 35.1 | 42.6 | 51.0 | 64.7 | 70.6 | 77.2 | 87.6 | 91.6 | 89.5 | 96.2 | 91.5 | 84.9 | 66.3 | 37.0 | 1045.8 |
| Vadgaon Maval | 30.0 | 29.7 | 36.7 | 43.5 | 54.1 | 66.3 | 73.9 | 80.5 | 88.5 | 91.7 | 93.1 | 100.4 | 92.8 | 86.9 | 67.9 | 38.3 | 1074.1 |
| Mulshi | 30.1 | 31.4 | 35.5 | 42.9 | 51.8 | 65.5 | 70.8 | 77.9 | 87.6 | 91.8 | 90.8 | 97.4 | 92.0 | 85.5 | 66.2 | 36.4 | 1053.6 |
| Shirur | 28.5 | 29.8 | 33.9 | 39.6 | 49.4 | 61.8 | 69.8 | 74.5 | 82.3 | 89.9 | 85.8 | 87.5 | 86.4 | 79.0 | 63.0 | 36.0 | 997.3 |
| Purandar | 31.2 | 32.1 | 36.2 | 44.4 | 51.3 | 67.0 | 71.7 | 78.2 | 90.3 | 92.6 | 90.9 | 99.0 | 90.5 | 86.2 | 65.6 | 37.0 | 1064.1 |
| Velhe | 30.3 | 31.0 | 34.7 | 42.7 | 49.8 | 64.3 | 69.6 | 75.8 | 87.0 | 90.8 | 89.4 | 96.3 | 89.4 | 84.0 | 65.0 | 35.8 | 1036.0 |
| Bhor | 30.8 | 30.8 | 34.3 | 42.5 | 48.6 | 63.6 | 68.5 | 74.7 | 85.9 | 89.0 | 88.3 | 95.8 | 87.4 | 82.9 | 63.5 | 35.2 | 1021.8 |
| Baramati | 31.2 | 32.1 | 36.9 | 44.3 | 51.6 | 66.5 | 71.5 | 78.0 | 88.7 | 90.9 | 90.6 | 98.0 | 89.5 | 84.9 | 63.2 | 36.7 | 1054.8 |
| Indapur | 31.0 | 32.3 | 37.9 | 45.2 | 53.6 | 65.6 | 72.9 | 77.3 | 88.1 | 92.9 | 91.9 | 98.2 | 93.0 | 85.2 | 64.3 | 36.9 | 1066.3 |
| Daund | 30.1 | 31.1 | 35.5 | 42.3 | 50.6 | 64.5 | 70.6 | 76.3 | 86.0 | 90.3 | 88.6 | 93.7 | 88.3 | 82.3 | 63.2 | 36.3 | 1029.7 |

Table No. B-52: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 60% efficiency in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 25.2 | 27.6 | 30.8 | 38.2 | 43.9 | 57.5 | 61.7 | 66.2 | 78.3 | 81.2 | 77.6 | 84.2 | 78.1 | 73.8 | 57.4 | 31.6 | 913.5 |
| Haveli | 25.2 | 27.5 | 30.8 | 38.2 | 43.9 | 57.4 | 61.6 | 66.2 | 78.2 | 81.0 | 77.5 | 84.1 | 78.0 | 73.8 | 57.3 | 31.6 | 912.4 |
| Khed | 24.5 | 25.9 | 29.8 | 36.1 | 43.3 | 54.8 | 59.8 | 65.1 | 73.8 | 77.0 | 75.7 | 81.4 | 76.6 | 71.4 | 55.6 | 31.0 | 881.9 |
| Junnar | 23.7 | 25.6 | 28.4 | 35.1 | 41.3 | 53.0 | 57.7 | 63.2 | 72.6 | 75.9 | 73.1 | 78.9 | 75.7 | 70.1 | 55.2 | 30.9 | 860.3 |
| Ambegaon | 24.1 | 25.8 | 29.2 | 35.5 | 42.5 | 53.9 | 58.8 | 64.3 | 73.0 | 76.4 | 74.6 | 80.2 | 76.3 | 70.7 | 55.3 | 30.9 | 871.5 |
| Vadgaon Maval | 25.0 | 24.7 | 30.5 | 36.2 | 45.1 | 55.2 | 61.5 | 67.1 | 73.7 | 76.4 | 77.6 | 83.7 | 77.3 | 72.4 | 56.6 | 31.9 | 895.1 |
| Mulshi | 25.1 | 26.2 | 29.6 | 35.7 | 43.2 | 54.6 | 59.0 | 64.9 | 73.0 | 76.5 | 75.7 | 81.2 | 76.6 | 71.2 | 55.2 | 30.4 | 878.0 |
| Shirur | 23.8 | 24.8 | 28.3 | 33.0 | 41.2 | 51.5 | 58.2 | 62.1 | 68.6 | 74.9 | 71.5 | 72.9 | 72.0 | 65.8 | 52.5 | 30.0 | 831.1 |
| Purandar | 26.0 | 26.7 | 30.2 | 37.0 | 42.8 | 55.8 | 59.7 | 65.1 | 75.2 | 77.1 | 75.8 | 82.5 | 75.4 | 71.8 | 54.7 | 30.8 | 886.7 |
| Velhe | 25.3 | 25.9 | 28.9 | 35.6 | 41.5 | 53.6 | 58.0 | 63.2 | 72.5 | 75.7 | 74.5 | 80.2 | 74.5 | 70.0 | 54.2 | 29.8 | 863.3 |
| Bhor | 25.7 | 25.6 | 28.6 | 35.4 | 40.5 | 53.0 | 57.1 | 62.2 | 71.6 | 74.2 | 73.6 | 79.8 | 72.8 | 69.1 | 52.9 | 29.4 | 851.5 |
| Baramati | 26.0 | 26.8 | 30.8 | 37.0 | 43.0 | 55.4 | 59.6 | 65.0 | 73.9 | 75.7 | 75.5 | 81.7 | 74.6 | 70.7 | 52.7 | 30.6 | 879.0 |
| Indapur | 25.8 | 26.9 | 31.6 | 37.7 | 44.7 | 54.7 | 60.8 | 64.4 | 73.4 | 77.4 | 76.6 | 81.8 | 77.5 | 71.0 | 53.5 | 30.7 | 888.6 |
| Daund | 25.0 | 25.9 | 29.6 | 35.3 | 42.2 | 53.7 | 58.8 | 63.6 | 71.6 | 75.2 | 73.8 | 78.1 | 73.6 | 68.6 | 52.7 | 30.3 | 858.1 |

Table No. B-53: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 18.9 | 20.7 | 23.1 | 28.7 | 32.9 | 43.1 | 46.3 | 49.7 | 58.8 | 60.9 | 58.2 | 63.2 | 58.6 | 55.4 | 43.1 | 23.7 | 685.1 |
| Haveli | 18.9 | 20.7 | 23.1 | 28.6 | 32.9 | 43.0 | 46.2 | 49.6 | 58.6 | 60.8 | 58.1 | 63.1 | 58.5 | 55.3 | 43.0 | 23.7 | 684.3 |
| Khed | 18.3 | 19.4 | 22.3 | 27.0 | 32.4 | 41.1 | 44.8 | 48.9 | 55.4 | 57.8 | 56.8 | 61.1 | 57.4 | 53.6 | 41.7 | 23.3 | 661.4 |
| Junnar | 17.7 | 19.2 | 21.3 | 26.3 | 31.0 | 39.8 | 43.3 | 47.4 | 54.5 | 56.9 | 54.8 | 59.2 | 56.8 | 52.6 | 41.4 | 23.2 | 645.2 |
| Ambegaon | 18.1 | 19.3 | 21.9 | 26.6 | 31.9 | 40.4 | 44.1 | 48.2 | 54.7 | 57.3 | 56.0 | 60.1 | 57.2 | 53.1 | 41.5 | 23.1 | 653.6 |
| Vadgaon Maval | 18.7 | 18.5 | 22.9 | 27.2 | 33.8 | 41.4 | 46.2 | 50.3 | 55.3 | 57.3 | 58.2 | 62.8 | 58.0 | 54.3 | 42.4 | 24.0 | 671.3 |
| Mulshi | 18.8 | 19.6 | 22.2 | 26.8 | 32.4 | 40.9 | 44.3 | 48.7 | 54.7 | 57.4 | 56.8 | 60.9 | 57.5 | 53.4 | 41.4 | 22.8 | 658.5 |
| Shirur | 17.8 | 18.6 | 21.2 | 24.8 | 30.9 | 38.6 | 43.6 | 46.6 | 51.5 | 56.2 | 53.7 | 54.7 | 54.0 | 49.4 | 39.4 | 22.5 | 623.3 |
| Purandar | 19.5 | 20.1 | 22.6 | 27.7 | 32.1 | 41.9 | 44.8 | 48.8 | 56.4 | 57.9 | 56.8 | 61.9 | 56.6 | 53.8 | 41.0 | 23.1 | 665.0 |
| Velhe | 19.0 | 19.4 | 21.7 | 26.7 | 31.1 | 40.2 | 43.5 | 47.4 | 54.3 | 56.7 | 55.8 | 60.2 | 55.9 | 52.5 | 40.7 | 22.4 | 647.5 |
| Bhor | 19.3 | 19.2 | 21.4 | 26.6 | 30.4 | 39.8 | 42.8 | 46.7 | 53.7 | 55.6 | 55.2 | 59.8 | 54.6 | 51.8 | 39.7 | 22.0 | 638.6 |
| Baramati | 19.5 | 20.1 | 23.1 | 27.7 | 32.3 | 41.6 | 44.7 | 48.8 | 55.4 | 56.8 | 56.7 | 61.2 | 55.9 | 53.0 | 39.5 | 23.0 | 659.2 |
| Indapur | 19.3 | 20.2 | 23.7 | 28.3 | 33.5 | 41.0 | 45.6 | 48.3 | 55.0 | 58.1 | 57.5 | 61.4 | 58.1 | 53.2 | 40.2 | 23.1 | 666.4 |
| Daund | 18.8 | 19.4 | 22.2 | 26.5 | 31.6 | 40.3 | 44.1 | 47.7 | 53.7 | 56.4 | 55.4 | 58.6 | 55.2 | 51.5 | 39.5 | 22.7 | 643.5 |

Table No. B-54: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 17.8 | 19.5 | 21.8 | 27.0 | 31.0 | 40.6 | 43.5 | 46.8 | 55.3 | 57.3 | 54.8 | 59.5 | 55.1 | 52.1 | 40.5 | 22.3 | 644.8 |
| Haveli | 17.8 | 19.4 | 21.7 | 27.0 | 31.0 | 40.5 | 43.5 | 46.7 | 55.2 | 57.2 | 54.7 | 59.4 | 55.1 | 52.1 | 40.5 | 22.3 | 644.0 |
| Khed | 17.3 | 18.3 | 21.0 | 25.5 | 30.5 | 38.7 | 42.2 | 46.0 | 52.1 | 54.4 | 53.4 | 57.5 | 54.1 | 50.4 | 39.3 | 21.9 | 622.5 |
| Junnar | 16.7 | 18.1 | 20.1 | 24.8 | 29.1 | 37.4 | 40.7 | 44.6 | 51.3 | 53.6 | 51.6 | 55.7 | 53.4 | 49.5 | 38.9 | 21.8 | 607.3 |
| Ambegaon | 17.0 | 18.2 | 20.6 | 25.1 | 30.0 | 38.1 | 41.5 | 45.4 | 51.5 | 53.9 | 52.7 | 56.6 | 53.8 | 49.9 | 39.0 | 21.8 | 615.2 |
| Vadgaon Maval | 17.6 | 17.4 | 21.6 | 25.6 | 31.8 | 39.0 | 43.4 | 47.4 | 52.0 | 53.9 | 54.8 | 59.1 | 54.6 | 51.1 | 39.9 | 22.6 | 631.8 |
| Mulshi | 17.7 | 18.5 | 20.9 | 25.2 | 30.5 | 38.5 | 41.7 | 45.8 | 51.5 | 54.0 | 53.4 | 57.3 | 54.1 | 50.3 | 38.9 | 21.4 | 619.8 |
| Shirur | 16.8 | 17.5 | 19.9 | 23.3 | 29.1 | 36.3 | 41.1 | 43.8 | 48.4 | 52.9 | 50.5 | 51.4 | 50.8 | 46.5 | 37.1 | 21.2 | 586.6 |
| Purandar | 18.3 | 18.9 | 21.3 | 26.1 | 30.2 | 39.4 | 42.2 | 46.0 | 53.1 | 54.5 | 53.5 | 58.2 | 53.3 | 50.7 | 38.6 | 21.8 | 625.9 |
| Velhe | 17.8 | 18.2 | 20.4 | 25.1 | 29.3 | 37.8 | 40.9 | 44.6 | 51.1 | 53.4 | 52.6 | 56.6 | 52.6 | 49.4 | 38.3 | 21.1 | 609.4 |
| Bhor | 18.1 | 18.1 | 20.2 | 25.0 | 28.6 | 37.4 | 40.3 | 43.9 | 50.5 | 52.4 | 51.9 | 56.3 | 51.4 | 48.8 | 37.3 | 20.7 | 601.0 |
| Baramati | 18.4 | 18.9 | 21.7 | 26.1 | 30.4 | 39.1 | 42.1 | 45.9 | 52.2 | 53.4 | 53.3 | 57.6 | 52.6 | 49.9 | 37.2 | 21.6 | 620.5 |
| Indapur | 18.2 | 19.0 | 22.3 | 26.6 | 31.5 | 38.6 | 42.9 | 45.5 | 51.8 | 54.7 | 54.1 | 57.8 | 54.7 | 50.1 | 37.8 | 21.7 | 627.2 |
| Daund | 17.7 | 18.3 | 20.9 | 24.9 | 29.8 | 37.9 | 41.5 | 44.9 | 50.6 | 53.1 | 52.1 | 55.1 | 52.0 | 48.4 | 37.2 | 21.4 | 605.7 |

Table No. B-55: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 16.8 | 18.4 | 20.5 | 25.5 | 29.3 | 38.3 | 41.1 | 44.2 | 52.2 | 54.1 | 51.7 | 56.2 | 52.1 | 49.2 | 38.3 | 21.1 | 609.0 |
| Haveli | 16.8 | 18.4 | 20.5 | 25.5 | 29.3 | 38.3 | 41.1 | 44.1 | 52.1 | 54.0 | 51.7 | 56.1 | 52.0 | 49.2 | 38.2 | 21.0 | 608.2 |
| Khed | 16.3 | 17.3 | 19.9 | 24.0 | 28.8 | 36.5 | 39.9 | 43.4 | 49.2 | 51.4 | 50.5 | 54.3 | 51.1 | 47.6 | 37.1 | 20.7 | 587.9 |
| Junnar | 15.8 | 17.1 | 18.9 | 23.4 | 27.5 | 35.3 | 38.5 | 42.1 | 48.4 | 50.6 | 48.7 | 52.6 | 50.4 | 46.8 | 36.8 | 20.6 | 573.5 |
| Ambegaon | 16.1 | 17.2 | 19.5 | 23.7 | 28.3 | 35.9 | 39.2 | 42.9 | 48.7 | 50.9 | 49.7 | 53.5 | 50.9 | 47.2 | 36.8 | 20.6 | 581.0 |
| Vadgaon Maval | 16.7 | 16.5 | 20.4 | 24.2 | 30.0 | 36.8 | 41.0 | 44.7 | 49.1 | 50.9 | 51.7 | 55.8 | 51.6 | 48.3 | 37.7 | 21.3 | 596.7 |
| Mulshi | 16.7 | 17.5 | 19.7 | 23.8 | 28.8 | 36.4 | 39.3 | 43.3 | 48.7 | 51.0 | 50.5 | 54.1 | 51.1 | 47.5 | 36.8 | 20.2 | 585.3 |
| Shirur | 15.9 | 16.5 | 18.8 | 22.0 | 27.5 | 34.3 | 38.8 | 41.4 | 45.7 | 49.9 | 47.7 | 48.6 | 48.0 | 43.9 | 35.0 | 20.0 | 554.0 |
| Purandar | 17.3 | 17.8 | 20.1 | 24.6 | 28.5 | 37.2 | 39.8 | 43.4 | 50.2 | 51.4 | 50.5 | 55.0 | 50.3 | 47.9 | 36.4 | 20.6 | 591.2 |
| Velhe | 16.9 | 17.2 | 19.3 | 23.7 | 27.7 | 35.7 | 38.7 | 42.1 | 48.3 | 50.4 | 49.6 | 53.5 | 49.7 | 46.6 | 36.1 | 19.9 | 575.6 |
| Bhor | 17.1 | 17.1 | 19.1 | 23.6 | 27.0 | 35.3 | 38.1 | 41.5 | 47.7 | 49.4 | 49.0 | 53.2 | 48.5 | 46.1 | 35.3 | 19.6 | 567.7 |
| Baramati | 17.3 | 17.8 | 20.5 | 24.6 | 28.7 | 37.0 | 39.7 | 43.4 | 49.3 | 50.5 | 50.4 | 54.4 | 49.7 | 47.2 | 35.1 | 20.4 | 586.0 |
| Indapur | 17.2 | 17.9 | 21.1 | 25.1 | 29.8 | 36.5 | 40.5 | 42.9 | 48.9 | 51.6 | 51.1 | 54.6 | 51.7 | 47.3 | 35.7 | 20.5 | 592.4 |
| Daund | 16.7 | 17.3 | 19.7 | 23.5 | 28.1 | 35.8 | 39.2 | 42.4 | 47.8 | 50.2 | 49.2 | 52.1 | 49.1 | 45.7 | 35.1 | 20.2 | 572.0 |

Table No. B-56: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 95% efficiency in Pune District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Pune City | 15.9 | 17.4 | 19.5 | 24.2 | 27.7 | 36.3 | 39.0 | 41.8 | 49.5 | 51.3 | 49.0 | 53.2 | 49.3 | 46.6 | 36.3 | 19.9 | 576.9 |
| Haveli | 15.9 | 17.4 | 19.4 | 24.1 | 27.7 | 36.2 | 38.9 | 41.8 | 49.4 | 51.2 | 49.0 | 53.1 | 49.3 | 46.6 | 36.2 | 19.9 | 576.2 |
| Khed | 15.4 | 16.4 | 18.8 | 22.8 | 27.3 | 34.6 | 37.8 | 41.1 | 46.6 | 48.6 | 47.8 | 51.4 | 48.4 | 45.1 | 35.1 | 19.6 | 557.0 |
| Junnar | 14.9 | 16.2 | 18.0 | 22.1 | 26.1 | 33.5 | 36.4 | 39.9 | 45.9 | 47.9 | 46.2 | 49.8 | 47.8 | 44.3 | 34.8 | 19.5 | 543.4 |
| Ambegaon | 15.2 | 16.3 | 18.5 | 22.4 | 26.9 | 34.1 | 37.2 | 40.6 | 46.1 | 48.2 | 47.1 | 50.7 | 48.2 | 44.7 | 34.9 | 19.5 | 550.4 |
| Vadgaon Maval | 15.8 | 15.6 | 19.3 | 22.9 | 28.5 | 34.9 | 38.9 | 42.4 | 46.6 | 48.3 | 49.0 | 52.9 | 48.9 | 45.7 | 35.7 | 20.2 | 565.3 |
| Mulshi | 15.8 | 16.5 | 18.7 | 22.6 | 27.3 | 34.5 | 37.3 | 41.0 | 46.1 | 48.3 | 47.8 | 51.3 | 48.4 | 45.0 | 34.8 | 19.2 | 554.5 |
| Shirur | 15.0 | 15.7 | 17.8 | 20.9 | 26.0 | 32.5 | 36.7 | 39.2 | 43.3 | 47.3 | 45.2 | 46.0 | 45.5 | 41.6 | 33.2 | 18.9 | 524.9 |
| Purandar | 16.4 | 16.9 | 19.1 | 23.4 | 27.0 | 35.3 | 37.7 | 41.1 | 47.5 | 48.7 | 47.9 | 52.1 | 47.6 | 45.3 | 34.5 | 19.5 | 560.0 |
| Velhe | 16.0 | 16.3 | 18.3 | 22.5 | 26.2 | 33.9 | 36.6 | 39.9 | 45.8 | 47.8 | 47.0 | 50.7 | 47.1 | 44.2 | 34.2 | 18.8 | 545.3 |
| Bhor | 16.2 | 16.2 | 18.1 | 22.4 | 25.6 | 33.5 | 36.1 | 39.3 | 45.2 | 46.8 | 46.5 | 50.4 | 46.0 | 43.6 | 33.4 | 18.6 | 537.8 |
| Baramati | 16.4 | 16.9 | 19.4 | 23.3 | 27.2 | 35.0 | 37.6 | 41.1 | 46.7 | 47.8 | 47.7 | 51.6 | 47.1 | 44.7 | 33.3 | 19.3 | 555.1 |
| Indapur | 16.3 | 17.0 | 20.0 | 23.8 | 28.2 | 34.5 | 38.4 | 40.7 | 46.4 | 48.9 | 48.4 | 51.7 | 49.0 | 44.8 | 33.8 | 19.4 | 561.2 |
| Daund | 15.8 | 16.4 | 18.7 | 22.3 | 26.6 | 33.9 | 37.1 | 40.2 | 45.2 | 47.5 | 46.6 | 49.3 | 46.5 | 43.3 | 33.3 | 19.1 | 541.9 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods of Rabi Gram Ignoring Effective Rainfall in Sangli District

Table No. B-57: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 16.0 | 14.6 | 17.3 | 20.1 | 24.3 | 30.5 | 32.7 | 37.5 | 38.1 | 41.5 | 43.9 | 45.5 | 41.2 | 36.4 | 26.8 | 16.7 | 483.1 |
| Kavathe Mahakal | 15.8 | 15.5 | 18.3 | 21.4 | 25.4 | 31.5 | 34.4 | 38.4 | 41.0 | 44.0 | 45.3 | 47.1 | 43.7 | 39.0 | 29.0 | 17.3 | 507.3 |
| Tasgaon | 15.9 | 14.6 | 17.4 | 20.2 | 24.2 | 30.4 | 32.7 | 37.5 | 38.0 | 41.5 | 44.0 | 45.7 | 41.4 | 36.4 | 26.7 | 16.8 | 483.5 |
| Jath | 15.8 | 16.1 | 19.0 | 22.5 | 26.6 | 32.5 | 36.0 | 38.8 | 43.4 | 46.0 | 46.2 | 48.7 | 46.0 | 41.5 | 31.1 | 18.0 | 528.2 |
| Walwa | 16.0 | 15.4 | 18.3 | 21.4 | 25.1 | 31.1 | 34.0 | 38.3 | 40.3 | 43.7 | 45.4 | 46.7 | 43.4 | 38.1 | 28.2 | 17.1 | 502.4 |
| Shirala | 16.1 | 16.6 | 19.6 | 23.1 | 26.4 | 32.2 | 36.1 | 39.7 | 44.0 | 47.0 | 47.4 | 48.1 | 46.4 | 40.9 | 30.7 | 17.7 | 532.0 |
| Vita | 15.8 | 16.2 | 19.2 | 22.8 | 26.0 | 31.7 | 35.5 | 39.1 | 43.0 | 46.0 | 46.9 | 48.5 | 45.9 | 40.3 | 29.9 | 17.7 | 524.4 |
| Atpadi | 15.7 | 16.2 | 19.3 | 23.0 | 27.0 | 32.6 | 36.4 | 39.0 | 43.9 | 46.4 | 46.6 | 49.5 | 46.7 | 42.1 | 31.5 | 18.3 | 534.1 |
| Palus | 15.9 | 15.5 | 18.4 | 21.6 | 25.1 | 31.1 | 34.1 | 38.3 | 40.6 | 43.9 | 45.6 | 47.1 | 43.7 | 38.3 | 28.3 | 17.2 | 504.6 |
| Kadegaon | 15.8 | 17.6 | 20.9 | 25.2 | 27.1 | 32.0 | 37.5 | 40.2 | 46.2 | 49.5 | 50.0 | 51.0 | 50.0 | 42.2 | 31.1 | 18.4 | 554.5 |

Table No. B-58: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 39.9 | 36.5 | 43.4 | 50.3 | 60.6 | 76.3 | 81.7 | 93.9 | 95.2 | 103.8 | 109.9 | 113.8 | 103.0 | 91.0 | 67.0 | 41.8 | 1207.9 |
| Kavathe Mahakal | 39.5 | 38.7 | 45.7 | 53.6 | 63.6 | 78.8 | 86.1 | 96.1 | 102.6 | 110.1 | 113.3 | 117.7 | 109.2 | 97.5 | 72.5 | 43.3 | 1268.3 |
| Tasgaon | 39.7 | 36.5 | 43.5 | 50.5 | 60.6 | 76.1 | 81.7 | 93.6 | 95.1 | 103.8 | 110.1 | 114.3 | 103.4 | 90.9 | 66.8 | 41.9 | 1208.7 |
| Jath | 39.6 | 40.3 | 47.5 | 56.3 | 66.5 | 81.2 | 90.0 | 97.1 | 108.5 | 115.1 | 115.5 | 121.7 | 114.9 | 103.8 | 77.7 | 45.0 | 1320.6 |
| Walwa | 40.0 | 38.5 | 45.7 | 53.5 | 62.6 | 77.7 | 85.0 | 95.8 | 100.8 | 109.2 | 113.6 | 116.8 | 108.4 | 95.2 | 70.4 | 42.9 | 1256.0 |
| Shirala | 40.2 | 41.4 | 48.9 | 57.8 | 66.0 | 80.5 | 90.1 | 99.2 | 110.1 | 117.5 | 118.6 | 120.3 | 115.9 | 102.3 | 76.7 | 44.3 | 1329.9 |
| Vita | 39.4 | 40.5 | 48.0 | 56.9 | 65.0 | 79.3 | 88.8 | 97.6 | 107.5 | 114.9 | 117.4 | 121.3 | 114.7 | 100.7 | 74.7 | 44.3 | 1311.1 |
| Atpadi | 39.4 | 40.6 | 48.3 | 57.4 | 67.4 | 81.4 | 91.1 | 97.4 | 109.7 | 116.1 | 116.6 | 123.8 | 116.8 | 105.2 | 78.6 | 45.6 | 1335.4 |
| Palus | 39.8 | 38.7 | 45.9 | 53.9 | 62.8 | 77.6 | 85.3 | 95.8 | 101.4 | 109.7 | 114.1 | 117.7 | 109.3 | 95.7 | 70.7 | 43.1 | 1261.4 |
| Kadegaon | 39.4 | 43.9 | 52.2 | 62.9 | 67.9 | 79.9 | 93.7 | 100.6 | 115.5 | 123.7 | 125.0 | 127.4 | 124.9 | 105.5 | 77.8 | 46.0 | 1386.2 |

Table No. B-59: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 31.9 | 29.2 | 34.7 | 40.2 | 48.5 | 61.0 | 65.4 | 75.1 | 76.1 | 83.0 | 87.9 | 91.0 | 82.4 | 72.8 | 53.6 | 33.4 | 966.3 |
| Kavathe Mahakal | 31.6 | 30.9 | 36.6 | 42.9 | 50.9 | 63.0 | 68.9 | 76.9 | 82.1 | 88.1 | 90.7 | 94.2 | 87.4 | 78.0 | 58.0 | 34.7 | 1014.6 |
| Tasgaon | 31.8 | 29.2 | 34.8 | 40.4 | 48.5 | 60.9 | 65.4 | 74.9 | 76.0 | 83.1 | 88.1 | 91.5 | 82.7 | 72.8 | 53.5 | 33.5 | 967.0 |
| Jath | 31.6 | 32.2 | 38.0 | 45.1 | 53.2 | 65.0 | 72.0 | 77.6 | 86.8 | 92.0 | 92.4 | 97.4 | 91.9 | 83.0 | 62.2 | 36.0 | 1056.5 |
| Walwa | 32.0 | 30.8 | 36.5 | 42.8 | 50.1 | 62.1 | 68.0 | 76.6 | 80.7 | 87.3 | 90.9 | 93.5 | 86.8 | 76.2 | 56.4 | 34.3 | 1004.8 |
| Shirala | 32.1 | 33.2 | 39.1 | 46.3 | 52.8 | 64.4 | 72.1 | 79.4 | 88.1 | 94.0 | 94.9 | 96.2 | 92.7 | 81.8 | 61.3 | 35.4 | 1063.9 |
| Vita | 31.5 | 32.4 | 38.4 | 45.5 | 52.0 | 63.5 | 71.1 | 78.1 | 86.0 | 92.0 | 93.9 | 97.0 | 91.8 | 80.6 | 59.7 | 35.5 | 1048.8 |
| Atpadi | 31.5 | 32.5 | 38.6 | 45.9 | 53.9 | 65.1 | 72.9 | 77.9 | 87.8 | 92.9 | 93.3 | 99.0 | 93.4 | 84.2 | 62.9 | 36.5 | 1068.3 |
| Palus | 31.8 | 30.9 | 36.7 | 43.1 | 50.3 | 62.1 | 68.3 | 76.7 | 81.1 | 87.8 | 91.3 | 94.1 | 87.5 | 76.5 | 56.5 | 34.5 | 1009.2 |
| Kadegaon | 31.5 | 35.1 | 41.8 | 50.3 | 54.3 | 63.9 | 75.0 | 80.4 | 92.4 | 98.9 | 100.0 | 101.9 | 99.9 | 84.4 | 62.2 | 36.8 | 1108.9 |

Table No. B-60: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 60% efficiency in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 26.6 | 24.3 | 28.9 | 33.5 | 40.4 | 50.9 | 54.5 | 62.6 | 63.4 | 69.2 | 73.2 | 75.8 | 68.6 | 60.6 | 44.7 | 27.9 | 805.2 |
| Kavathe Mahakal | 26.3 | 25.8 | 30.5 | 35.7 | 42.4 | 52.5 | 57.4 | 64.0 | 68.4 | 73.4 | 75.6 | 78.5 | 72.8 | 65.0 | 48.4 | 28.9 | 845.5 |
| Tasgaon | 26.5 | 24.3 | 29.0 | 33.7 | 40.4 | 50.7 | 54.5 | 62.4 | 63.4 | 69.2 | 73.4 | 76.2 | 68.9 | 60.6 | 44.6 | 27.9 | 805.8 |
| Jath | 26.4 | 26.8 | 31.7 | 37.5 | 44.4 | 54.1 | 60.0 | 64.7 | 72.3 | 76.7 | 77.0 | 81.1 | 76.6 | 69.2 | 51.8 | 30.0 | 880.4 |
| Walwa | 26.7 | 25.6 | 30.4 | 35.6 | 41.8 | 51.8 | 56.7 | 63.8 | 67.2 | 72.8 | 75.7 | 77.9 | 72.3 | 63.5 | 47.0 | 28.6 | 837.3 |
| Shirala | 26.8 | 27.6 | 32.6 | 38.6 | 44.0 | 53.7 | 60.1 | 66.1 | 73.4 | 78.4 | 79.1 | 80.2 | 77.3 | 68.2 | 51.1 | 29.5 | 886.6 |
| Vita | 26.3 | 27.0 | 32.0 | 38.0 | 43.3 | 52.9 | 59.2 | 65.1 | 71.6 | 76.6 | 78.2 | 80.9 | 76.5 | 67.1 | 49.8 | 29.6 | 874.0 |
| Atpadi | 26.2 | 27.1 | 32.2 | 38.3 | 45.0 | 54.3 | 60.7 | 64.9 | 73.1 | 77.4 | 77.7 | 82.5 | 77.8 | 70.2 | 52.4 | 30.4 | 890.2 |
| Palus | 26.5 | 25.8 | 30.6 | 35.9 | 41.9 | 51.8 | 56.9 | 63.9 | 67.6 | 73.1 | 76.1 | 78.4 | 72.9 | 63.8 | 47.1 | 28.7 | 841.0 |
| Kadegaon | 26.3 | 29.3 | 34.8 | 41.9 | 45.2 | 53.3 | 62.5 | 67.0 | 77.0 | 82.5 | 83.3 | 84.9 | 83.3 | 70.3 | 51.8 | 30.7 | 924.1 |

Table No. B-61: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 19.9 | 18.2 | 21.7 | 25.1 | 30.3 | 38.2 | 40.9 | 46.9 | 47.6 | 51.9 | 54.9 | 56.9 | 51.5 | 45.5 | 33.5 | 20.9 | 603.9 |
| Kavathe Mahakal | 19.8 | 19.3 | 22.8 | 26.8 | 31.8 | 39.4 | 43.0 | 48.0 | 51.3 | 55.0 | 56.7 | 58.8 | 54.6 | 48.8 | 36.3 | 21.7 | 634.2 |
| Tasgaon | 19.9 | 18.3 | 21.7 | 25.3 | 30.3 | 38.1 | 40.9 | 46.8 | 47.5 | 51.9 | 55.1 | 57.2 | 51.7 | 45.5 | 33.4 | 21.0 | 604.4 |
| Jath | 19.8 | 20.1 | 23.8 | 28.2 | 33.3 | 40.6 | 45.0 | 48.5 | 54.2 | 57.5 | 57.8 | 60.9 | 57.5 | 51.9 | 38.9 | 22.5 | 660.3 |
| Walwa | 20.0 | 19.2 | 22.8 | 26.7 | 31.3 | 38.8 | 42.5 | 47.9 | 50.4 | 54.6 | 56.8 | 58.4 | 54.2 | 47.6 | 35.2 | 21.4 | 628.0 |
| Shirala | 20.1 | 20.7 | 24.5 | 28.9 | 33.0 | 40.3 | 45.1 | 49.6 | 55.1 | 58.8 | 59.3 | 60.1 | 58.0 | 51.1 | 38.3 | 22.1 | 664.9 |
| Vita | 19.7 | 20.3 | 24.0 | 28.5 | 32.5 | 39.7 | 44.4 | 48.8 | 53.7 | 57.5 | 58.7 | 60.6 | 57.4 | 50.3 | 37.3 | 22.2 | 655.5 |
| Atpadi | 19.7 | 20.3 | 24.1 | 28.7 | 33.7 | 40.7 | 45.5 | 48.7 | 54.9 | 58.0 | 58.3 | 61.9 | 58.4 | 52.6 | 39.3 | 22.8 | 667.7 |
| Palus | 19.9 | 19.3 | 23.0 | 27.0 | 31.4 | 38.8 | 42.7 | 47.9 | 50.7 | 54.9 | 57.0 | 58.8 | 54.7 | 47.8 | 35.3 | 21.5 | 630.7 |
| Kadegaon | 19.7 | 22.0 | 26.1 | 31.4 | 33.9 | 40.0 | 46.9 | 50.3 | 57.7 | 61.8 | 62.5 | 63.7 | 62.4 | 52.8 | 38.9 | 23.0 | 693.1 |

Table No. B-62: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 18.8 | 17.2 | 20.4 | 23.7 | 28.5 | 35.9 | 38.4 | 44.2 | 44.8 | 48.8 | 51.7 | 53.5 | 48.5 | 42.8 | 31.5 | 19.7 | 568.4 |
| Kavathe Mahakal | 18.6 | 18.2 | 21.5 | 25.2 | 29.9 | 37.1 | 40.5 | 45.2 | 48.3 | 51.8 | 53.3 | 55.4 | 51.4 | 45.9 | 34.1 | 20.4 | 596.9 |
| Tasgaon | 18.7 | 17.2 | 20.5 | 23.8 | 28.5 | 35.8 | 38.5 | 44.1 | 44.7 | 48.9 | 51.8 | 53.8 | 48.7 | 42.8 | 31.5 | 19.7 | 568.8 |
| Jath | 18.6 | 18.9 | 22.4 | 26.5 | 31.3 | 38.2 | 42.3 | 45.7 | 51.0 | 54.1 | 54.4 | 57.3 | 54.1 | 48.8 | 36.6 | 21.2 | 621.5 |
| Walwa | 18.8 | 18.1 | 21.5 | 25.2 | 29.5 | 36.6 | 40.0 | 45.1 | 47.4 | 51.4 | 53.4 | 55.0 | 51.0 | 44.8 | 33.2 | 20.2 | 591.1 |
| Shirala | 18.9 | 19.5 | 23.0 | 27.2 | 31.1 | 37.9 | 42.4 | 46.7 | 51.8 | 55.3 | 55.8 | 56.6 | 54.5 | 48.1 | 36.1 | 20.8 | 625.8 |
| Vita | 18.5 | 19.1 | 22.6 | 26.8 | 30.6 | 37.3 | 41.8 | 45.9 | 50.6 | 54.1 | 55.2 | 57.1 | 54.0 | 47.4 | 35.1 | 20.9 | 617.0 |
| Atpadi | 18.5 | 19.1 | 22.7 | 27.0 | 31.7 | 38.3 | 42.9 | 45.8 | 51.6 | 54.6 | 54.9 | 58.2 | 55.0 | 49.5 | 37.0 | 21.5 | 628.4 |
| Palus | 18.7 | 18.2 | 21.6 | 25.4 | 29.6 | 36.5 | 40.2 | 45.1 | 47.7 | 51.6 | 53.7 | 55.4 | 51.4 | 45.0 | 33.2 | 20.3 | 593.6 |
| Kadegaon | 18.5 | 20.7 | 24.6 | 29.6 | 31.9 | 37.6 | 44.1 | 47.3 | 54.3 | 58.2 | 58.8 | 59.9 | 58.8 | 49.7 | 36.6 | 21.6 | 652.3 |

Table No. B-63: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 17.7 | 16.2 | 19.3 | 22.3 | 26.9 | 33.9 | 36.3 | 41.7 | 42.3 | 46.1 | 48.8 | 50.6 | 45.8 | 40.4 | 29.8 | 18.6 | 536.8 |
| Kavathe Mahakal | 17.6 | 17.2 | 20.3 | 23.8 | 28.3 | 35.0 | 38.3 | 42.7 | 45.6 | 48.9 | 50.4 | 52.3 | 48.5 | 43.3 | 32.2 | 19.3 | 563.7 |
| Tasgaon | 17.7 | 16.2 | 19.3 | 22.5 | 26.9 | 33.8 | 36.3 | 41.6 | 42.2 | 46.1 | 48.9 | 50.8 | 46.0 | 40.4 | 29.7 | 18.6 | 537.2 |
| Jath | 17.6 | 17.9 | 21.1 | 25.0 | 29.6 | 36.1 | 40.0 | 43.1 | 48.2 | 51.1 | 51.3 | 54.1 | 51.1 | 46.1 | 34.5 | 20.0 | 586.9 |
| Walwa | 17.8 | 17.1 | 20.3 | 23.8 | 27.8 | 34.5 | 37.8 | 42.6 | 44.8 | 48.5 | 50.5 | 51.9 | 48.2 | 42.3 | 31.3 | 19.0 | 558.2 |
| Shirala | 17.8 | 18.4 | 21.7 | 25.7 | 29.3 | 35.8 | 40.1 | 44.1 | 48.9 | 52.2 | 52.7 | 53.5 | 51.5 | 45.5 | 34.1 | 19.7 | 591.1 |
| Vita | 17.5 | 18.0 | 21.3 | 25.3 | 28.9 | 35.3 | 39.5 | 43.4 | 47.8 | 51.1 | 52.2 | 53.9 | 51.0 | 44.8 | 33.2 | 19.7 | 582.7 |
| Atpadi | 17.5 | 18.0 | 21.5 | 25.5 | 30.0 | 36.2 | 40.5 | 43.3 | 48.8 | 51.6 | 51.8 | 55.0 | 51.9 | 46.8 | 35.0 | 20.3 | 593.5 |
| Palus | 17.7 | 17.2 | 20.4 | 24.0 | 27.9 | 34.5 | 37.9 | 42.6 | 45.1 | 48.8 | 50.7 | 52.3 | 48.6 | 42.5 | 31.4 | 19.1 | 560.6 |
| Kadegaon | 17.5 | 19.5 | 23.2 | 28.0 | 30.2 | 35.5 | 41.7 | 44.7 | 51.3 | 55.0 | 55.5 | 56.6 | 55.5 | 46.9 | 34.6 | 20.4 | 616.1 |

Table No. B-64: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Sangli District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Miraj | 16.8 | 15.4 | 18.3 | 21.2 | 25.5 | 32.1 | 34.4 | 39.5 | 40.1 | 43.7 | 46.3 | 47.9 | 43.4 | 38.3 | 28.2 | 17.6 | 508.6 |
| Kavathe Mahakal | 16.6 | 16.3 | 19.2 | 22.6 | 26.8 | 33.2 | 36.2 | 40.5 | 43.2 | 46.4 | 47.7 | 49.6 | 46.0 | 41.1 | 30.5 | 18.2 | 534.0 |
| Tasgaon | 16.7 | 15.4 | 18.3 | 21.3 | 25.5 | 32.0 | 34.4 | 39.4 | 40.0 | 43.7 | 46.4 | 48.1 | 43.5 | 38.3 | 28.1 | 17.7 | 508.9 |
| Jath | 16.7 | 17.0 | 20.0 | 23.7 | 28.0 | 34.2 | 37.9 | 40.9 | 45.7 | 48.4 | 48.6 | 51.2 | 48.4 | 43.7 | 32.7 | 18.9 | 556.0 |
| Walwa | 16.9 | 16.2 | 19.2 | 22.5 | 26.4 | 32.7 | 35.8 | 40.3 | 42.4 | 46.0 | 47.8 | 49.2 | 45.7 | 40.1 | 29.7 | 18.0 | 528.8 |
| Shirala | 16.9 | 17.4 | 20.6 | 24.4 | 27.8 | 33.9 | 38.0 | 41.8 | 46.4 | 49.5 | 49.9 | 50.7 | 48.8 | 43.1 | 32.3 | 18.6 | 560.0 |
| Vita | 16.6 | 17.1 | 20.2 | 24.0 | 27.4 | 33.4 | 37.4 | 41.1 | 45.2 | 48.4 | 49.4 | 51.1 | 48.3 | 42.4 | 31.4 | 18.7 | 552.0 |
| Atpadi | 16.6 | 17.1 | 20.3 | 24.2 | 28.4 | 34.3 | 38.3 | 41.0 | 46.2 | 48.9 | 49.1 | 52.1 | 49.2 | 44.3 | 33.1 | 19.2 | 562.3 |
| Palus | 16.7 | 16.3 | 19.3 | 22.7 | 26.5 | 32.7 | 35.9 | 40.4 | 42.7 | 46.2 | 48.0 | 49.5 | 46.0 | 40.3 | 29.7 | 18.1 | 531.1 |
| Kadegaon | 16.6 | 18.5 | 22.0 | 26.5 | 28.6 | 33.6 | 39.5 | 42.3 | 48.6 | 52.1 | 52.6 | 53.6 | 52.6 | 44.4 | 32.7 | 19.4 | 583.6 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods of Rabi Gram Ignoring Effective Rainfall in Satara District

Table No. B-65: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 15.6 | 16.0 | 18.3 | 22.4 | 25.2 | 32.0 | 35.2 | 38.4 | 43.8 | 45.5 | 45.8 | 48.7 | 45.1 | 41.6 | 31.1 | 17.8 | 522.5 |
| Jaoli | 15.1 | 13.8 | 15.5 | 19.5 | 21.5 | 28.4 | 30.7 | 32.8 | 41.3 | 41.6 | 43.7 | 44.0 | 40.2 | 38.1 | 30.2 | 15.6 | 472.0 |
| Koregaon | 15.8 | 16.3 | 18.8 | 22.8 | 25.7 | 32.6 | 35.7 | 39.1 | 44.6 | 46.0 | 46.3 | 49.5 | 45.6 | 42.1 | 31.2 | 18.1 | 530.2 |
| Wai | 15.4 | 15.1 | 16.7 | 20.9 | 23.5 | 31.0 | 33.4 | 36.4 | 41.9 | 43.5 | 43.5 | 47.1 | 42.8 | 40.6 | 31.1 | 17.2 | 500.1 |
| Mahabaleshwar | 15.1 | 13.7 | 14.4 | 18.9 | 20.8 | 27.8 | 30.6 | 32.8 | 38.2 | 40.9 | 40.7 | 43.9 | 40.0 | 37.8 | 30.1 | 15.6 | 461.2 |
| Khandala | 16.0 | 16.1 | 18.2 | 22.2 | 25.3 | 33.7 | 35.3 | 39.1 | 44.9 | 44.6 | 45.1 | 49.9 | 43.9 | 42.9 | 31.4 | 18.3 | 527.0 |
| Phaltan | 16.1 | 16.3 | 18.7 | 22.6 | 25.8 | 34.2 | 35.8 | 39.7 | 45.4 | 45.0 | 45.6 | 50.4 | 44.3 | 43.3 | 31.4 | 18.6 | 533.4 |
| Dahivadi | 15.7 | 16.3 | 19.1 | 22.8 | 26.2 | 32.8 | 36.1 | 39.3 | 44.4 | 46.2 | 46.5 | 49.4 | 45.8 | 42.1 | 31.2 | 18.2 | 532.1 |
| Vaduj | 15.7 | 16.5 | 19.3 | 23.2 | 26.3 | 32.5 | 36.2 | 39.3 | 44.5 | 46.6 | 47.1 | 49.5 | 46.4 | 41.9 | 31.1 | 18.1 | 534.3 |
| Patan | 15.6 | 16.8 | 19.7 | 23.8 | 26.3 | 31.9 | 36.4 | 39.4 | 45.0 | 47.7 | 48.0 | 49.6 | 47.7 | 41.8 | 31.2 | 18.0 | 538.8 |
| Karad | 15.7 | 18.3 | 21.9 | 26.5 | 27.8 | 32.0 | 38.5 | 40.8 | 47.8 | 51.3 | 51.7 | 52.3 | 52.2 | 43.1 | 31.6 | 18.7 | 570.4 |

Table No. B-66: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 39.0 | 40.1 | 45.9 | 55.9 | 63.0 | 80.0 | 87.9 | 95.9 | 109.6 | 113.9 | 114.4 | 121.8 | 112.7 | 103.9 | 77.9 | 44.5 | 1306.4 |
| Jaoli | 37.8 | 34.5 | 38.9 | 48.7 | 53.7 | 71.0 | 76.8 | 82.0 | 103.3 | 104.0 | 109.3 | 110.0 | 100.5 | 95.3 | 75.5 | 39.0 | 1180.0 |
| Koregaon | 39.5 | 40.8 | 47.1 | 57.0 | 64.3 | 81.6 | 89.3 | 97.8 | 111.5 | 114.9 | 115.8 | 123.7 | 113.9 | 105.3 | 78.0 | 45.3 | 1325.6 |
| Wai | 38.6 | 37.7 | 41.8 | 52.1 | 58.9 | 77.4 | 83.6 | 91.1 | 104.8 | 108.8 | 108.6 | 117.8 | 107.0 | 101.5 | 77.6 | 43.0 | 1250.3 |
| Mahabaleshwar | 37.8 | 34.3 | 36.1 | 47.2 | 51.9 | 69.5 | 76.4 | 82.0 | 95.4 | 102.2 | 101.6 | 109.7 | 100.0 | 94.6 | 75.2 | 39.1 | 1153.0 |
| Khandala | 40.1 | 40.2 | 45.6 | 55.6 | 63.2 | 84.3 | 88.2 | 97.8 | 112.2 | 111.6 | 112.6 | 124.8 | 109.6 | 107.3 | 78.6 | 45.8 | 1317.4 |
| Phaltan | 40.3 | 40.8 | 46.9 | 56.6 | 64.5 | 85.6 | 89.6 | 99.3 | 113.5 | 112.5 | 113.9 | 126.1 | 110.8 | 108.3 | 78.4 | 46.4 | 1333.6 |
| Dahivadi | 39.4 | 40.8 | 47.6 | 57.1 | 65.5 | 82.0 | 90.1 | 98.1 | 111.0 | 115.4 | 116.2 | 123.6 | 114.5 | 105.3 | 78.0 | 45.5 | 1330.3 |
| Vaduj | 39.4 | 41.3 | 48.3 | 57.9 | 65.6 | 81.3 | 90.4 | 98.4 | 111.3 | 116.6 | 117.7 | 123.7 | 116.1 | 104.7 | 77.6 | 45.3 | 1335.6 |
| Patan | 38.9 | 42.1 | 49.3 | 59.4 | 65.7 | 79.8 | 91.0 | 98.4 | 112.4 | 119.3 | 120.1 | 124.0 | 119.2 | 104.4 | 77.9 | 45.1 | 1347.0 |
| Karad | 39.4 | 45.7 | 54.7 | 66.2 | 69.5 | 80.0 | 96.4 | 102.1 | 119.5 | 128.3 | 129.3 | 130.8 | 130.5 | 107.8 | 79.0 | 46.9 | 1426.1 |

Table No. B-67: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 31.2 | 32.1 | 36.7 | 44.7 | 50.4 | 64.0 | 70.3 | 76.8 | 87.6 | 91.1 | 91.5 | 97.4 | 90.2 | 83.1 | 62.3 | 35.6 | 1045.1 |
| Jaoli | 30.2 | 27.6 | 31.1 | 38.9 | 42.9 | 56.8 | 61.4 | 65.6 | 82.6 | 83.2 | 87.4 | 88.0 | 80.4 | 76.2 | 60.4 | 31.2 | 944.0 |
| Koregaon | 31.6 | 32.7 | 37.7 | 45.6 | 51.4 | 65.3 | 71.4 | 78.2 | 89.2 | 91.9 | 92.7 | 98.9 | 91.1 | 84.2 | 62.4 | 36.2 | 1060.5 |
| Wai | 30.9 | 30.2 | 33.4 | 41.7 | 47.1 | 61.9 | 66.9 | 72.9 | 83.9 | 87.1 | 86.9 | 94.2 | 85.6 | 81.2 | 62.1 | 34.4 | 1000.3 |
| Mahabaleshwar | 30.2 | 27.4 | 28.9 | 37.7 | 41.5 | 55.6 | 61.1 | 65.6 | 76.3 | 81.7 | 81.3 | 87.8 | 80.0 | 75.7 | 60.2 | 31.3 | 922.4 |
| Khandala | 32.0 | 32.1 | 36.5 | 44.5 | 50.5 | 67.4 | 70.6 | 78.3 | 89.8 | 89.3 | 90.1 | 99.8 | 87.7 | 85.9 | 62.8 | 36.7 | 1053.9 |
| Phaltan | 32.2 | 32.7 | 37.5 | 45.3 | 51.6 | 68.5 | 71.7 | 79.5 | 90.8 | 90.0 | 91.2 | 100.9 | 88.6 | 86.6 | 62.7 | 37.2 | 1066.8 |
| Dahivadi | 31.5 | 32.7 | 38.1 | 45.7 | 52.4 | 65.6 | 72.1 | 78.5 | 88.8 | 92.3 | 93.0 | 98.9 | 91.6 | 84.2 | 62.4 | 36.4 | 1064.2 |
| Vaduj | 31.5 | 33.0 | 38.6 | 46.3 | 52.5 | 65.0 | 72.3 | 78.7 | 89.0 | 93.3 | 94.1 | 99.0 | 92.9 | 83.8 | 62.1 | 36.3 | 1068.5 |
| Patan | 31.1 | 33.7 | 39.4 | 47.5 | 52.6 | 63.8 | 72.8 | 78.7 | 89.9 | 95.5 | 96.0 | 99.2 | 95.4 | 83.5 | 62.3 | 36.1 | 1077.6 |
| Karad | 31.5 | 36.6 | 43.7 | 53.0 | 55.6 | 64.0 | 77.1 | 81.7 | 95.6 | 102.7 | 103.4 | 104.7 | 104.4 | 86.3 | 63.2 | 37.5 | 1140.9 |

Table No. B-68: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 60% efficiency in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 26.0 | 26.7 | 30.6 | 37.3 | 42.0 | 53.3 | 58.6 | 64.0 | 73.0 | 75.9 | 76.3 | 81.2 | 75.2 | 69.3 | 51.9 | 29.7 | 870.9 |
| Jaoli | 25.2 | 23.0 | 25.9 | 32.5 | 35.8 | 47.3 | 51.2 | 54.7 | 68.8 | 69.3 | 72.8 | 73.3 | 67.0 | 63.5 | 50.3 | 26.0 | 786.6 |
| Koregaon | 26.3 | 27.2 | 31.4 | 38.0 | 42.8 | 54.4 | 59.5 | 65.2 | 74.3 | 76.6 | 77.2 | 82.4 | 75.9 | 70.2 | 52.0 | 30.2 | 883.7 |
| Wai | 25.7 | 25.1 | 27.8 | 34.8 | 39.2 | 51.6 | 55.7 | 60.7 | 69.9 | 72.6 | 72.4 | 78.5 | 71.3 | 67.7 | 51.8 | 28.6 | 833.6 |
| Mahabaleshwar | 25.2 | 22.8 | 24.1 | 31.5 | 34.6 | 46.4 | 50.9 | 54.7 | 63.6 | 68.1 | 67.8 | 73.2 | 66.7 | 63.1 | 50.2 | 26.1 | 768.7 |
| Khandala | 26.7 | 26.8 | 30.4 | 37.1 | 42.1 | 56.2 | 58.8 | 65.2 | 74.8 | 74.4 | 75.1 | 83.2 | 73.1 | 71.6 | 52.4 | 30.6 | 878.3 |
| Phaltan | 26.8 | 27.2 | 31.2 | 37.7 | 43.0 | 57.1 | 59.7 | 66.2 | 75.7 | 75.0 | 76.0 | 84.1 | 73.9 | 72.2 | 52.3 | 31.0 | 889.0 |
| Dahivadi | 26.2 | 27.2 | 31.8 | 38.1 | 43.7 | 54.7 | 60.1 | 65.4 | 74.0 | 76.9 | 77.5 | 82.4 | 76.4 | 70.2 | 52.0 | 30.3 | 886.8 |
| Vaduj | 26.2 | 27.5 | 32.2 | 38.6 | 43.8 | 54.2 | 60.3 | 65.6 | 74.2 | 77.7 | 78.4 | 82.5 | 77.4 | 69.8 | 51.8 | 30.2 | 890.4 |
| Patan | 25.9 | 28.1 | 32.8 | 39.6 | 43.8 | 53.2 | 60.7 | 65.6 | 74.9 | 79.6 | 80.0 | 82.6 | 79.5 | 69.6 | 51.9 | 30.0 | 898.0 |
| Karad | 26.2 | 30.5 | 36.4 | 44.1 | 46.3 | 53.3 | 64.2 | 68.1 | 79.6 | 85.5 | 86.2 | 87.2 | 87.0 | 71.9 | 52.7 | 31.2 | 950.7 |

Table No. B-69: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 19.5 | 20.1 | 22.9 | 28.0 | 31.5 | 40.0 | 43.9 | 48.0 | 54.8 | 56.9 | 57.2 | 60.9 | 56.4 | 52.0 | 38.9 | 22.3 | 653.2 |
| Jaoli | 18.9 | 17.3 | 19.4 | 24.3 | 26.8 | 35.5 | 38.4 | 41.0 | 51.6 | 52.0 | 54.6 | 55.0 | 50.3 | 47.6 | 37.8 | 19.5 | 590.0 |
| Koregaon | 19.7 | 20.4 | 23.5 | 28.5 | 32.1 | 40.8 | 44.6 | 48.9 | 55.7 | 57.5 | 57.9 | 61.8 | 57.0 | 52.6 | 39.0 | 22.6 | 662.8 |
| Wai | 19.3 | 18.9 | 20.9 | 26.1 | 29.4 | 38.7 | 41.8 | 45.6 | 52.4 | 54.4 | 54.3 | 58.9 | 53.5 | 50.8 | 38.8 | 21.5 | 625.2 |
| Mahabaleshwar | 18.9 | 17.1 | 18.1 | 23.6 | 26.0 | 34.8 | 38.2 | 41.0 | 47.7 | 51.1 | 50.8 | 54.9 | 50.0 | 47.3 | 37.6 | 19.6 | 576.5 |
| Khandala | 20.0 | 20.1 | 22.8 | 27.8 | 31.6 | 42.1 | 44.1 | 48.9 | 56.1 | 55.8 | 56.3 | 62.4 | 54.8 | 53.7 | 39.3 | 22.9 | 658.7 |
| Phaltan | 20.1 | 20.4 | 23.4 | 28.3 | 32.3 | 42.8 | 44.8 | 49.7 | 56.8 | 56.3 | 57.0 | 63.0 | 55.4 | 54.1 | 39.2 | 23.2 | 666.8 |
| Dahivadi | 19.7 | 20.4 | 23.8 | 28.5 | 32.8 | 41.0 | 45.1 | 49.1 | 55.5 | 57.7 | 58.1 | 61.8 | 57.3 | 52.6 | 39.0 | 22.7 | 665.1 |
| Vaduj | 19.7 | 20.6 | 24.1 | 29.0 | 32.8 | 40.6 | 45.2 | 49.2 | 55.6 | 58.3 | 58.8 | 61.9 | 58.0 | 52.4 | 38.8 | 22.7 | 667.8 |
| Patan | 19.5 | 21.0 | 24.6 | 29.7 | 32.9 | 39.9 | 45.5 | 49.2 | 56.2 | 59.7 | 60.0 | 62.0 | 59.6 | 52.2 | 39.0 | 22.5 | 673.5 |
| Karad | 19.7 | 22.8 | 27.3 | 33.1 | 34.7 | 40.0 | 48.2 | 51.0 | 59.7 | 64.2 | 64.6 | 65.4 | 65.3 | 53.9 | 39.5 | 23.4 | 713.0 |

Table No. B-70: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 18.4 | 18.9 | 21.6 | 26.3 | 29.6 | 37.6 | 41.4 | 45.2 | 51.6 | 53.6 | 53.8 | 57.3 | 53.1 | 48.9 | 36.6 | 21.0 | 614.8 |
| Jaoli | 17.8 | 16.2 | 18.3 | 22.9 | 25.3 | 33.4 | 36.1 | 38.6 | 48.6 | 48.9 | 51.4 | 51.8 | 47.3 | 44.8 | 35.5 | 18.4 | 555.3 |
| Koregaon | 18.6 | 19.2 | 22.2 | 26.8 | 30.2 | 38.4 | 42.0 | 46.0 | 52.4 | 54.1 | 54.5 | 58.2 | 53.6 | 49.5 | 36.7 | 21.3 | 623.8 |
| Wai | 18.2 | 17.7 | 19.6 | 24.5 | 27.7 | 36.4 | 39.3 | 42.9 | 49.3 | 51.2 | 51.1 | 55.4 | 50.3 | 47.8 | 36.5 | 20.2 | 588.4 |
| Mahabaleshwar | 17.8 | 16.1 | 17.0 | 22.2 | 24.4 | 32.7 | 36.0 | 38.6 | 44.9 | 48.1 | 47.8 | 51.6 | 47.0 | 44.5 | 35.4 | 18.4 | 542.6 |
| Khandala | 18.9 | 18.9 | 21.4 | 26.2 | 29.7 | 39.6 | 41.5 | 46.0 | 52.8 | 52.5 | 53.0 | 58.7 | 51.6 | 50.5 | 37.0 | 21.6 | 620.0 |
| Phaltan | 18.9 | 19.2 | 22.1 | 26.6 | 30.4 | 40.3 | 42.2 | 46.7 | 53.4 | 52.9 | 53.6 | 59.3 | 52.1 | 51.0 | 36.9 | 21.9 | 627.6 |
| Dahivadi | 18.5 | 19.2 | 22.4 | 26.9 | 30.8 | 38.6 | 42.4 | 46.2 | 52.2 | 54.3 | 54.7 | 58.2 | 53.9 | 49.5 | 36.7 | 21.4 | 626.0 |
| Vaduj | 18.5 | 19.4 | 22.7 | 27.3 | 30.9 | 38.3 | 42.6 | 46.3 | 52.4 | 54.9 | 55.4 | 58.2 | 54.6 | 49.3 | 36.5 | 21.3 | 628.5 |
| Patan | 18.3 | 19.8 | 23.2 | 28.0 | 30.9 | 37.5 | 42.8 | 46.3 | 52.9 | 56.2 | 56.5 | 58.3 | 56.1 | 49.1 | 36.7 | 21.2 | 633.9 |
| Karad | 18.5 | 21.5 | 25.7 | 31.1 | 32.7 | 37.7 | 45.4 | 48.0 | 56.2 | 60.4 | 60.8 | 61.6 | 61.4 | 50.7 | 37.2 | 22.1 | 671.1 |

Table No. B-71: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 90% efficiency in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 17.3 | 17.8 | 20.4 | 24.8 | 28.0 | 35.5 | 39.1 | 42.6 | 48.7 | 50.6 | 50.9 | 54.1 | 50.1 | 46.2 | 34.6 | 19.8 | 580.6 |
| Jaoli | 16.8 | 15.3 | 17.3 | 21.6 | 23.9 | 31.6 | 34.1 | 36.4 | 45.9 | 46.2 | 48.6 | 48.9 | 44.7 | 42.3 | 33.6 | 17.3 | 524.4 |
| Koregaon | 17.5 | 18.2 | 20.9 | 25.3 | 28.6 | 36.3 | 39.7 | 43.4 | 49.5 | 51.1 | 51.5 | 55.0 | 50.6 | 46.8 | 34.7 | 20.1 | 589.1 |
| Wai | 17.1 | 16.8 | 18.6 | 23.2 | 26.2 | 34.4 | 37.2 | 40.5 | 46.6 | 48.4 | 48.3 | 52.4 | 47.5 | 45.1 | 34.5 | 19.1 | 555.7 |
| Mahabaleshwar | 16.8 | 15.2 | 16.0 | 21.0 | 23.1 | 30.9 | 34.0 | 36.5 | 42.4 | 45.4 | 45.2 | 48.8 | 44.4 | 42.0 | 33.4 | 17.4 | 512.4 |
| Khandala | 17.8 | 17.8 | 20.3 | 24.7 | 28.1 | 37.4 | 39.2 | 43.5 | 49.9 | 49.6 | 50.1 | 55.5 | 48.7 | 47.7 | 34.9 | 20.4 | 585.5 |
| Phaltan | 17.9 | 18.1 | 20.8 | 25.2 | 28.7 | 38.0 | 39.8 | 44.1 | 50.5 | 50.0 | 50.6 | 56.0 | 49.2 | 48.1 | 34.8 | 20.6 | 592.7 |
| Dahivadi | 17.5 | 18.1 | 21.2 | 25.4 | 29.1 | 36.5 | 40.1 | 43.6 | 49.3 | 51.3 | 51.7 | 54.9 | 50.9 | 46.8 | 34.7 | 20.2 | 591.2 |
| Vaduj | 17.5 | 18.3 | 21.5 | 25.7 | 29.2 | 36.1 | 40.2 | 43.7 | 49.5 | 51.8 | 52.3 | 55.0 | 51.6 | 46.5 | 34.5 | 20.2 | 593.6 |
| Patan | 17.3 | 18.7 | 21.9 | 26.4 | 29.2 | 35.4 | 40.5 | 43.7 | 49.9 | 53.0 | 53.4 | 55.1 | 53.0 | 46.4 | 34.6 | 20.0 | 598.6 |
| Karad | 17.5 | 20.3 | 24.3 | 29.4 | 30.9 | 35.6 | 42.8 | 45.4 | 53.1 | 57.0 | 57.5 | 58.2 | 58.0 | 47.9 | 35.1 | 20.8 | 633.8 |

Table No. B-72: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Drip Irrigation at 95% efficiency in Satara District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Satara | 16.4 | 16.9 | 19.3 | 23.5 | 26.5 | 33.7 | 37.0 | 40.4 | 46.1 | 47.9 | 48.2 | 51.3 | 47.5 | 43.8 | 32.8 | 18.7 | 550.0 |
| Jaoli | 15.9 | 14.5 | 16.4 | 20.5 | 22.6 | 29.9 | 32.3 | 34.5 | 43.5 | 43.8 | 46.0 | 46.3 | 42.3 | 40.1 | 31.8 | 16.4 | 496.8 |
| Koregaon | 16.6 | 17.2 | 19.8 | 24.0 | 27.1 | 34.3 | 37.6 | 41.2 | 46.9 | 48.4 | 48.8 | 52.1 | 48.0 | 44.3 | 32.8 | 19.1 | 558.1 |
| Wai | 16.2 | 15.9 | 17.6 | 21.9 | 24.8 | 32.6 | 35.2 | 38.4 | 44.1 | 45.8 | 45.7 | 49.6 | 45.0 | 42.8 | 32.7 | 18.1 | 526.5 |
| Mahabaleshwar | 15.9 | 14.4 | 15.2 | 19.9 | 21.9 | 29.3 | 32.2 | 34.5 | 40.2 | 43.0 | 42.8 | 46.2 | 42.1 | 39.8 | 31.7 | 16.5 | 485.5 |
| Khandala | 16.9 | 16.9 | 19.2 | 23.4 | 26.6 | 35.5 | 37.1 | 41.2 | 47.2 | 47.0 | 47.4 | 52.5 | 46.2 | 45.2 | 33.1 | 19.3 | 554.7 |
| Phaltan | 17.0 | 17.2 | 19.7 | 23.8 | 27.2 | 36.0 | 37.7 | 41.8 | 47.8 | 47.4 | 48.0 | 53.1 | 46.6 | 45.6 | 33.0 | 19.6 | 561.5 |
| Dahivadi | 16.6 | 17.2 | 20.1 | 24.0 | 27.6 | 34.5 | 38.0 | 41.3 | 46.7 | 48.6 | 48.9 | 52.0 | 48.2 | 44.3 | 32.9 | 19.1 | 560.1 |
| Vaduj | 16.6 | 17.4 | 20.3 | 24.4 | 27.6 | 34.2 | 38.1 | 41.4 | 46.9 | 49.1 | 49.5 | 52.1 | 48.9 | 44.1 | 32.7 | 19.1 | 562.4 |
| Patan | 16.4 | 17.7 | 20.7 | 25.0 | 27.7 | 33.6 | 38.3 | 41.4 | 47.3 | 50.3 | 50.6 | 52.2 | 50.2 | 44.0 | 32.8 | 19.0 | 567.1 |
| Karad | 16.6 | 19.2 | 23.0 | 27.9 | 29.3 | 33.7 | 40.6 | 43.0 | 50.3 | 54.0 | 54.4 | 55.1 | 55.0 | 45.4 | 33.3 | 19.7 | 600.4 |

Taluka wise Crop and Irrigation Water Requirement (mm) by Different Irrigation Methods of Rabi Gram Ignoring Effective Rainfall in Solapur District

Table No. B-73: Taluka Wise Crop Water Requirement (mm) of Rabi Gram in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 17.2 | 17.0 | 19.5 | 23.6 | 27.2 | 35.6 | 37.3 | 37.2 | 45.8 | 48.8 | 45.9 | 49.7 | 48.8 | 45.4 | 33.9 | 18.5 | 551.4 |
| Solapur-S | 16.9 | 16.9 | 19.5 | 23.5 | 27.3 | 34.9 | 37.3 | 37.6 | 45.4 | 48.3 | 46.1 | 49.8 | 48.5 | 44.8 | 33.5 | 18.5 | 548.7 |
| Barshi | 15.9 | 16.3 | 19.0 | 22.8 | 26.8 | 33.4 | 36.6 | 38.0 | 44.4 | 47.0 | 45.8 | 49.0 | 47.3 | 43.2 | 32.7 | 18.5 | 536.7 |
| Akkalkot | 16.8 | 16.8 | 19.4 | 23.4 | 27.1 | 34.9 | 37.1 | 37.5 | 45.3 | 48.2 | 46.0 | 49.6 | 48.3 | 44.6 | 33.4 | 18.5 | 547.0 |
| Madha | 15.9 | 16.5 | 19.5 | 23.4 | 27.6 | 33.4 | 37.2 | 38.4 | 44.8 | 47.4 | 46.5 | 50.1 | 48.1 | 43.7 | 32.9 | 18.7 | 544.0 |
| Karmala | 15.1 | 15.7 | 18.2 | 21.7 | 25.9 | 32.2 | 35.7 | 37.9 | 43.1 | 45.8 | 44.8 | 47.4 | 45.5 | 41.6 | 31.9 | 18.3 | 520.6 |
| Pandharpur | 15.8 | 16.8 | 20.8 | 24.7 | 29.6 | 33.3 | 38.8 | 39.5 | 45.7 | 48.4 | 48.4 | 52.9 | 50.4 | 45.0 | 33.5 | 19.3 | 562.9 |
| Mohol | 16.3 | 16.7 | 19.8 | 23.7 | 27.9 | 34.1 | 37.5 | 38.3 | 45.2 | 48.0 | 46.7 | 50.5 | 48.7 | 44.4 | 33.2 | 18.7 | 549.8 |
| Malshiras | 15.6 | 16.3 | 19.3 | 23.0 | 27.0 | 32.9 | 36.7 | 39.0 | 44.4 | 46.6 | 46.5 | 49.8 | 46.8 | 42.7 | 32.0 | 18.5 | 537.0 |
| Sangola | 15.8 | 16.5 | 20.0 | 23.8 | 28.2 | 33.1 | 37.6 | 39.1 | 44.8 | 47.4 | 47.3 | 51.0 | 48.5 | 43.6 | 32.6 | 18.8 | 548.2 |
| Mangalwedha | 15.9 | 16.7 | 20.2 | 24.1 | 28.7 | 33.4 | 38.1 | 39.1 | 45.3 | 47.9 | 47.6 | 51.7 | 49.3 | 44.4 | 33.1 | 19.0 | 554.5 |

Table No. B-74: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 40% efficiency in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 43.1 | 42.6 | 48.7 | 59.0 | 68.0 | 89.1 | 93.3 | 92.9 | 114.4 | 121.9 | 114.7 | 124.3 | 122.0 | 113.4 | 84.7 | 46.3 | 1378.4 |
| Solapur-S | 42.2 | 42.2 | 48.7 | 58.7 | 68.2 | 87.4 | 93.1 | 94.0 | 113.6 | 120.8 | 115.3 | 124.5 | 121.2 | 111.9 | 83.7 | 46.3 | 1371.7 |
| Barshi | 39.7 | 40.8 | 47.6 | 57.0 | 67.1 | 83.4 | 91.5 | 95.0 | 110.9 | 117.6 | 114.4 | 122.6 | 118.2 | 108.0 | 81.8 | 46.2 | 1341.7 |
| Akkalkot | 42.1 | 42.1 | 48.5 | 58.5 | 67.8 | 87.3 | 92.8 | 93.9 | 113.4 | 120.6 | 114.9 | 123.9 | 120.7 | 111.6 | 83.5 | 46.2 | 1367.5 |
| Madha | 39.8 | 41.1 | 48.8 | 58.4 | 69.0 | 83.5 | 93.0 | 96.1 | 111.9 | 118.5 | 116.3 | 125.4 | 120.2 | 109.3 | 82.2 | 46.7 | 1360.0 |
| Karmala | 37.8 | 39.4 | 45.5 | 54.2 | 64.8 | 80.4 | 89.2 | 94.7 | 107.7 | 114.4 | 111.9 | 118.4 | 113.8 | 103.9 | 79.8 | 45.6 | 1301.6 |
| Pandharpur | 39.5 | 41.9 | 51.9 | 61.7 | 74.1 | 83.2 | 97.0 | 98.7 | 114.3 | 120.9 | 120.9 | 132.3 | 126.0 | 112.6 | 83.9 | 48.3 | 1407.2 |
| Mohol | 40.8 | 41.8 | 49.4 | 59.2 | 69.6 | 85.2 | 93.9 | 95.8 | 113.1 | 120.0 | 116.8 | 126.3 | 121.7 | 111.0 | 83.1 | 46.8 | 1374.5 |
| Malshiras | 39.1 | 40.7 | 48.2 | 57.5 | 67.6 | 82.2 | 91.7 | 97.4 | 111.0 | 116.5 | 116.1 | 124.4 | 117.0 | 106.9 | 80.0 | 46.2 | 1342.4 |
| Sangola | 39.5 | 41.3 | 49.9 | 59.4 | 70.6 | 82.6 | 93.9 | 97.8 | 112.1 | 118.6 | 118.4 | 127.6 | 121.2 | 109.1 | 81.5 | 46.9 | 1370.5 |
| Mangalwedha | 39.7 | 41.7 | 50.6 | 60.3 | 71.8 | 83.4 | 95.2 | 97.8 | 113.2 | 119.9 | 119.0 | 129.2 | 123.3 | 110.9 | 82.8 | 47.5 | 1386.2 |

Table No. B-75: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 50% efficiency in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|------|------|---------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 34.5 | 34.1 | 39.0 | 47.2 | 54.4 | 71.3 | 74.7 | 74.3 | 91.5 | 97.5 | 91.8 | 99.4 | 97.6 | 90.7 | 67.7 | 37.0 | 1102.8 |
| Solapur-S | 33.7 | 33.7 | 39.0 | 47.0 | 54.5 | 69.9 | 74.5 | 75.2 | 90.9 | 96.6 | 92.2 | 99.6 | 96.9 | 89.6 | 67.0 | 37.0 | 1097.4 |
| Barshi | 31.8 | 32.6 | 38.0 | 45.6 | 53.7 | 66.7 | 73.2 | 76.0 | 88.8 | 94.1 | 91.5 | 98.1 | 94.5 | 86.4 | 65.4 | 37.0 | 1073.3 |
| Akkalkot | 33.7 | 33.7 | 38.8 | 46.8 | 54.2 | 69.8 | 74.2 | 75.1 | 90.7 | 96.5 | 91.9 | 99.1 | 96.5 | 89.3 | 66.8 | 36.9 | 1094.0 |
| Madha | 31.8 | 32.9 | 39.0 | 46.7 | 55.2 | 66.8 | 74.4 | 76.9 | 89.5 | 94.8 | 93.0 | 100.3 | 96.2 | 87.4 | 65.8 | 37.4 | 1088.0 |
| Karmala | 30.3 | 31.5 | 36.4 | 43.4 | 51.8 | 64.3 | 71.3 | 75.8 | 86.2 | 91.5 | 89.5 | 94.7 | 91.0 | 83.1 | 63.9 | 36.5 | 1041.3 |
| Pandharpur | 31.6 | 33.6 | 41.6 | 49.4 | 59.3 | 66.6 | 77.6 | 79.0 | 91.4 | 96.7 | 96.7 | 105.8 | 100.8 | 90.1 | 67.1 | 38.6 | 1125.8 |
| Mohol | 32.6 | 33.4 | 39.5 | 47.4 | 55.7 | 68.1 | 75.1 | 76.7 | 90.5 | 96.0 | 93.5 | 101.0 | 97.3 | 88.8 | 66.5 | 37.4 | 1099.6 |
| Malshiras | 31.3 | 32.6 | 38.5 | 46.0 | 54.0 | 65.8 | 73.3 | 77.9 | 88.8 | 93.2 | 92.9 | 99.5 | 93.6 | 85.5 | 64.0 | 37.0 | 1073.9 |
| Sangola | 31.6 | 33.0 | 39.9 | 47.5 | 56.5 | 66.1 | 75.2 | 78.2 | 89.7 | 94.9 | 94.7 | 102.1 | 97.0 | 87.3 | 65.2 | 37.5 | 1096.4 |
| Mangalwedha | 31.8 | 33.3 | 40.5 | 48.2 | 57.4 | 66.7 | 76.1 | 78.2 | 90.6 | 95.9 | 95.2 | 103.4 | 98.6 | 88.7 | 66.3 | 38.0 | 1109.0 |

Table No. B-76: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Surface Irrigation at 60% efficiency in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 28.7 | 28.4 | 32.5 | 39.3 | 45.3 | 59.4 | 62.2 | 61.9 | 76.3 | 81.3 | 76.5 | 82.9 | 81.3 | 75.6 | 56.5 | 30.9 | 919.0 |
| Solapur-S | 28.1 | 28.1 | 32.5 | 39.2 | 45.5 | 58.2 | 62.1 | 62.7 | 75.7 | 80.5 | 76.8 | 83.0 | 80.8 | 74.6 | 55.8 | 30.9 | 914.5 |
| Barshi | 26.5 | 27.2 | 31.7 | 38.0 | 44.7 | 55.6 | 61.0 | 63.3 | 74.0 | 78.4 | 76.3 | 81.7 | 78.8 | 72.0 | 54.5 | 30.8 | 894.5 |
| Akkalkot | 28.1 | 28.1 | 32.3 | 39.0 | 45.2 | 58.2 | 61.9 | 62.6 | 75.6 | 80.4 | 76.6 | 82.6 | 80.4 | 74.4 | 55.7 | 30.8 | 911.7 |
| Madha | 26.5 | 27.4 | 32.5 | 38.9 | 46.0 | 55.7 | 62.0 | 64.1 | 74.6 | 79.0 | 77.5 | 83.6 | 80.1 | 72.8 | 54.8 | 31.1 | 906.7 |
| Karmala | 25.2 | 26.2 | 30.3 | 36.1 | 43.2 | 53.6 | 59.4 | 63.2 | 71.8 | 76.3 | 74.6 | 79.0 | 75.9 | 69.3 | 53.2 | 30.4 | 867.7 |
| Pandharpur | 26.3 | 28.0 | 34.6 | 41.1 | 49.4 | 55.5 | 64.6 | 65.8 | 76.2 | 80.6 | 80.6 | 88.2 | 84.0 | 75.0 | 55.9 | 32.2 | 938.2 |
| Mohol | 27.2 | 27.9 | 32.9 | 39.5 | 46.4 | 56.8 | 62.6 | 63.9 | 75.4 | 80.0 | 77.9 | 84.2 | 81.1 | 74.0 | 55.4 | 31.2 | 916.3 |
| Malshiras | 26.1 | 27.1 | 32.1 | 38.3 | 45.0 | 54.8 | 61.1 | 65.0 | 74.0 | 77.7 | 77.4 | 82.9 | 78.0 | 71.2 | 53.3 | 30.8 | 894.9 |
| Sangola | 26.3 | 27.5 | 33.3 | 39.6 | 47.0 | 55.1 | 62.6 | 65.2 | 74.7 | 79.1 | 78.9 | 85.1 | 80.8 | 72.7 | 54.3 | 31.3 | 913.6 |
| Mangalwedha | 26.5 | 27.8 | 33.7 | 40.2 | 47.9 | 55.6 | 63.4 | 65.2 | 75.5 | 79.9 | 79.4 | 86.1 | 82.2 | 74.0 | 55.2 | 31.6 | 924.2 |

Table No. B-77: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 80% efficiency in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 21.5 | 21.3 | 24.3 | 29.5 | 34.0 | 44.5 | 46.7 | 46.4 | 57.2 | 61.0 | 57.4 | 62.2 | 61.0 | 56.7 | 42.3 | 23.2 | 689.2 |
| Solapur-S | 21.1 | 21.1 | 24.4 | 29.4 | 34.1 | 43.7 | 46.6 | 47.0 | 56.8 | 60.4 | 57.6 | 62.2 | 60.6 | 56.0 | 41.8 | 23.2 | 685.9 |
| Barshi | 19.9 | 20.4 | 23.8 | 28.5 | 33.5 | 41.7 | 45.7 | 47.5 | 55.5 | 58.8 | 57.2 | 61.3 | 59.1 | 54.0 | 40.9 | 23.1 | 670.8 |
| Akkalkot | 21.1 | 21.0 | 24.2 | 29.2 | 33.9 | 43.6 | 46.4 | 46.9 | 56.7 | 60.3 | 57.5 | 61.9 | 60.3 | 55.8 | 41.8 | 23.1 | 683.8 |
| Madha | 19.9 | 20.6 | 24.4 | 29.2 | 34.5 | 41.7 | 46.5 | 48.0 | 56.0 | 59.3 | 58.1 | 62.7 | 60.1 | 54.6 | 41.1 | 23.4 | 680.0 |
| Karmala | 18.9 | 19.7 | 22.7 | 27.1 | 32.4 | 40.2 | 44.6 | 47.4 | 53.9 | 57.2 | 55.9 | 59.2 | 56.9 | 52.0 | 39.9 | 22.8 | 650.8 |
| Pandharpur | 19.7 | 21.0 | 26.0 | 30.9 | 37.0 | 41.6 | 48.5 | 49.4 | 57.1 | 60.5 | 60.4 | 66.1 | 63.0 | 56.3 | 41.9 | 24.1 | 703.6 |
| Mohol | 20.4 | 20.9 | 24.7 | 29.6 | 34.8 | 42.6 | 46.9 | 47.9 | 56.6 | 60.0 | 58.4 | 63.2 | 60.8 | 55.5 | 41.5 | 23.4 | 687.2 |
| Malshiras | 19.6 | 20.3 | 24.1 | 28.7 | 33.8 | 41.1 | 45.8 | 48.7 | 55.5 | 58.2 | 58.1 | 62.2 | 58.5 | 53.4 | 40.0 | 23.1 | 671.2 |
| Sangola | 19.8 | 20.6 | 25.0 | 29.7 | 35.3 | 41.3 | 47.0 | 48.9 | 56.0 | 59.3 | 59.2 | 63.8 | 60.6 | 54.6 | 40.8 | 23.5 | 685.2 |
| Mangalwedha | 19.9 | 20.8 | 25.3 | 30.1 | 35.9 | 41.7 | 47.6 | 48.9 | 56.6 | 59.9 | 59.5 | 64.6 | 61.6 | 55.5 | 41.4 | 23.7 | 693.1 |

Table No. B-78: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 85% efficiency in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 20.3 | 20.1 | 22.9 | 27.8 | 32.0 | 41.9 | 43.9 | 43.7 | 53.8 | 57.4 | 54.0 | 58.5 | 57.4 | 53.4 | 39.8 | 21.8 | 648.7 |
| Solapur-S | 19.8 | 19.8 | 22.9 | 27.6 | 32.1 | 41.1 | 43.8 | 44.2 | 53.4 | 56.9 | 54.2 | 58.6 | 57.0 | 52.7 | 39.4 | 21.8 | 645.5 |
| Barshi | 18.7 | 19.2 | 22.4 | 26.8 | 31.6 | 39.3 | 43.1 | 44.7 | 52.2 | 55.3 | 53.8 | 57.7 | 55.6 | 50.8 | 38.5 | 21.7 | 631.4 |
| Akkalkot | 19.8 | 19.8 | 22.8 | 27.5 | 31.9 | 41.1 | 43.7 | 44.2 | 53.3 | 56.7 | 54.1 | 58.3 | 56.8 | 52.5 | 39.3 | 21.7 | 643.5 |
| Madha | 18.7 | 19.4 | 23.0 | 27.5 | 32.5 | 39.3 | 43.7 | 45.2 | 52.7 | 55.8 | 54.7 | 59.0 | 56.6 | 51.4 | 38.7 | 22.0 | 640.0 |
| Karmala | 17.8 | 18.5 | 21.4 | 25.5 | 30.5 | 37.8 | 42.0 | 44.6 | 50.7 | 53.8 | 52.7 | 55.7 | 53.6 | 48.9 | 37.6 | 21.5 | 612.5 |
| Pandharpur | 18.6 | 19.7 | 24.4 | 29.0 | 34.9 | 39.2 | 45.6 | 46.5 | 53.8 | 56.9 | 56.9 | 62.3 | 59.3 | 53.0 | 39.5 | 22.7 | 662.2 |
| Mohol | 19.2 | 19.7 | 23.3 | 27.9 | 32.8 | 40.1 | 44.2 | 45.1 | 53.2 | 56.5 | 55.0 | 59.4 | 57.3 | 52.2 | 39.1 | 22.0 | 646.8 |
| Malshiras | 18.4 | 19.1 | 22.7 | 27.0 | 31.8 | 38.7 | 43.1 | 45.9 | 52.2 | 54.8 | 54.7 | 58.5 | 55.0 | 50.3 | 37.7 | 21.7 | 631.7 |
| Sangola | 18.6 | 19.4 | 23.5 | 27.9 | 33.2 | 38.9 | 44.2 | 46.0 | 52.7 | 55.8 | 55.7 | 60.1 | 57.1 | 51.3 | 38.4 | 22.1 | 644.9 |
| Mangalwedha | 18.7 | 19.6 | 23.8 | 28.4 | 33.8 | 39.3 | 44.8 | 46.0 | 53.3 | 56.4 | 56.0 | 60.8 | 58.0 | 52.2 | 39.0 | 22.3 | 652.3 |

Table No. B-79: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 90% efficiency in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 19.1 | 18.9 | 21.6 | 26.2 | 30.2 | 39.6 | 41.5 | 41.3 | 50.8 | 54.2 | 51.0 | 55.2 | 54.2 | 50.4 | 37.6 | 20.6 | 612.6 |
| Solapur-S | 18.7 | 18.7 | 21.6 | 26.1 | 30.3 | 38.8 | 41.4 | 41.8 | 50.5 | 53.7 | 51.2 | 55.3 | 53.9 | 49.8 | 37.2 | 20.6 | 609.6 |
| Barshi | 17.6 | 18.1 | 21.1 | 25.3 | 29.8 | 37.1 | 40.7 | 42.2 | 49.3 | 52.3 | 50.8 | 54.5 | 52.5 | 48.0 | 36.3 | 20.5 | 596.3 |
| Akkalkot | 18.7 | 18.7 | 21.5 | 26.0 | 30.1 | 38.8 | 41.2 | 41.7 | 50.4 | 53.6 | 51.1 | 55.1 | 53.6 | 49.6 | 37.1 | 20.5 | 607.8 |
| Madha | 17.7 | 18.3 | 21.7 | 25.9 | 30.6 | 37.1 | 41.3 | 42.7 | 49.7 | 52.7 | 51.7 | 55.7 | 53.4 | 48.6 | 36.5 | 20.8 | 604.5 |
| Karmala | 16.8 | 17.5 | 20.2 | 24.1 | 28.8 | 35.7 | 39.6 | 42.1 | 47.9 | 50.8 | 49.7 | 52.6 | 50.6 | 46.2 | 35.5 | 20.3 | 578.5 |
| Pandharpur | 17.5 | 18.6 | 23.1 | 27.4 | 32.9 | 37.0 | 43.1 | 43.9 | 50.8 | 53.7 | 53.7 | 58.8 | 56.0 | 50.0 | 37.3 | 21.5 | 625.4 |
| Mohol | 18.1 | 18.6 | 22.0 | 26.3 | 31.0 | 37.8 | 41.7 | 42.6 | 50.3 | 53.3 | 51.9 | 56.1 | 54.1 | 49.3 | 36.9 | 20.8 | 610.9 |
| Malshiras | 17.4 | 18.1 | 21.4 | 25.5 | 30.0 | 36.5 | 40.7 | 43.3 | 49.3 | 51.8 | 51.6 | 55.3 | 52.0 | 47.5 | 35.6 | 20.5 | 596.6 |
| Sangola | 17.6 | 18.3 | 22.2 | 26.4 | 31.4 | 36.7 | 41.8 | 43.5 | 49.8 | 52.7 | 52.6 | 56.7 | 53.9 | 48.5 | 36.2 | 20.9 | 609.1 |
| Mangalwedha | 17.7 | 18.5 | 22.5 | 26.8 | 31.9 | 37.1 | 42.3 | 43.4 | 50.3 | 53.3 | 52.9 | 57.4 | 54.8 | 49.3 | 36.8 | 21.1 | 616.1 |

Table No. B-80: Taluka Wise Irrigation Water Requirement (mm) of Rabi Gram by Sprinkler Irrigation at 95% efficiency in Solapur District

| Taluka | MW51 | MW52 | MW1 | MW2 | MW3 | MW4 | MW5 | MW6 | MW7 | MW8 | MW9 | MW10 | MW11 | MW12 | MW13 | MW14 | Seasonal WR |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | CW1 | CW2 | CW3 | CW4 | CW5 | CW6 | CW7 | CW8 | CW9 | CW10 | CW11 | CW12 | CW13 | CW14 | CW15 | CW16 | |
| Solapur-N | 18.1 | 17.9 | 20.5 | 24.8 | 28.6 | 37.5 | 39.3 | 39.1 | 48.2 | 51.3 | 48.3 | 52.3 | 51.4 | 47.8 | 35.7 | 19.5 | 580.4 |
| Solapur-S | 17.8 | 17.8 | 20.5 | 24.7 | 28.7 | 36.8 | 39.2 | 39.6 | 47.8 | 50.9 | 48.5 | 52.4 | 51.0 | 47.1 | 35.2 | 19.5 | 577.6 |
| Barshi | 16.7 | 17.2 | 20.0 | 24.0 | 28.3 | 35.1 | 38.5 | 40.0 | 46.7 | 49.5 | 48.2 | 51.6 | 49.7 | 45.5 | 34.4 | 19.4 | 564.9 |
| Akkalkot | 17.7 | 17.7 | 20.4 | 24.6 | 28.5 | 36.8 | 39.1 | 39.5 | 47.7 | 50.8 | 48.4 | 52.2 | 50.8 | 47.0 | 35.2 | 19.4 | 575.8 |
| Madha | 16.7 | 17.3 | 20.5 | 24.6 | 29.0 | 35.2 | 39.1 | 40.5 | 47.1 | 49.9 | 49.0 | 52.8 | 50.6 | 46.0 | 34.6 | 19.7 | 572.7 |
| Karmala | 15.9 | 16.6 | 19.1 | 22.8 | 27.3 | 33.9 | 37.5 | 39.9 | 45.4 | 48.2 | 47.1 | 49.9 | 47.9 | 43.8 | 33.6 | 19.2 | 548.0 |
| Pandharpur | 16.6 | 17.7 | 21.9 | 26.0 | 31.2 | 35.0 | 40.8 | 41.6 | 48.1 | 50.9 | 50.9 | 55.7 | 53.1 | 47.4 | 35.3 | 20.3 | 592.5 |
| Mohol | 17.2 | 17.6 | 20.8 | 24.9 | 29.3 | 35.9 | 39.5 | 40.3 | 47.6 | 50.5 | 49.2 | 53.2 | 51.2 | 46.7 | 35.0 | 19.7 | 578.7 |
| Malshiras | 16.5 | 17.1 | 20.3 | 24.2 | 28.4 | 34.6 | 38.6 | 41.0 | 46.7 | 49.1 | 48.9 | 52.4 | 49.2 | 45.0 | 33.7 | 19.4 | 565.2 |
| Sangola | 16.6 | 17.4 | 21.0 | 25.0 | 29.7 | 34.8 | 39.6 | 41.2 | 47.2 | 49.9 | 49.8 | 53.7 | 51.0 | 45.9 | 34.3 | 19.8 | 577.0 |
| Mangalwedha | 16.7 | 17.5 | 21.3 | 25.4 | 30.2 | 35.1 | 40.1 | 41.2 | 47.7 | 50.5 | 50.1 | 54.4 | 51.9 | 46.7 | 34.9 | 20.0 | 583.7 |