

## Performance of different varieties of coriander for yield, quality and germination under Marathwada conditions

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### ABSTRACT

An experiment was conducted to study the performance of different varieties of Coriander for yield, quality and germination under Marathwada conditions at Department of Horticulture, Marathwada Agricultural University, Parbhani during 2007-08. Variety V<sub>5</sub> Surbhi produced highest green yield (34 q/ha), also fresh, weight of shoot was found maximum in Surbhi. The dry weight of plant was found highest in variety Japoni. The ascorbic acid content and chlorophyll content were also found maximum in variety Surbhi followed by variety DWD-3. Test weight was found highest in variety Surbhi. Germination percentage and minimum days required for germination were observed in variety DWD-3 followed by Surbhi.

**Key words :** Performance, Varieties, Coriander, Yield, Quality, Germination

Coriander (*Coriandrum sativum* L.) is an annual herb, belonging to family Umbeliferaceae. The bright green plant is erect and glabrous (hairless), reaching height of 40-60 cm, the compound lower leaves are roundish and lobed while the upper leaves are finely divided into very narrow lacy segments.

Among the spices cultivated in India, coriander is one of the most popular spice and used as flavouring agent in various vegetable dish in Indian meals. In India coriander is grown for fresh green herb and also spice seeds. Coriander is widely used in whole or ground forms for flavouring purposes. The herb is a key component to curries and when ground with green chillies, coconut, salt and a squeeze of lemon, it makes delicious common Indian chutney.

The spice is also employed for the preparation of either steam distilled essential oil or the solvent extracted oleoresin. Essential oil can be fractionated to provide linalool (usually 60 to 70 per cent), which can be used as starting material for synthetic production of other flavouring agents, such as critical and ionone. One of the pharmaceutical use of coriander is to mask the tastes of other medicinal compounds or to calm the irritating effects on the stomach that some medicine cause.

The nutritional properties of coriander leaves, raw includes Vitamin A, Niacin, Vit. C, Vit. K and minerals such as calcium, iron and also includes proteins, carbohydrates fibre, fats and also provides energy.

In order to exploit the yield potential of coriander, the factors affecting yield and yield component should be thoroughly investigated. These factors include

environment and cultural practices which directly affect the yield. The productivity of coriander has increased substantially due to rapid development of varieties. However, less attempt has been made to standardize them for various locations. Since several varieties are available for cultivation, it is necessary to identify the potential variety for the prevailing agro-climatic conditions. Therefore, the performance of different varieties of coriander for yield, quality and germination under Marathwada conditions was evaluated.

### MATERIALS AND METHODS

Eight varieties of coriander viz. V<sub>1</sub> - R-31, V<sub>2</sub> - Kalmi, V<sub>3</sub> - S 101, V<sub>4</sub> - Japoni, V<sub>5</sub> - Surbhi, V<sub>6</sub> - Gawran, V<sub>7</sub> - DWD 3, V<sub>8</sub> - Green Gold were tested. The experiment was laid out in Randomized Block Design (RBD) with three replications at Department of Horticulture, Marathwada Agricultural University, Parbhani during 2007-08. Certified seeds of varieties R-31, Kalmi, Japoni, S 101, Surbhi, Gawran and Green Gold were obtained from Department of Horticulture, Marathwada Agricultural University, Parbhani and DWD-3 was obtained from University of Agricultural Sciences, Dharwad, Karnataka state and sown on 8<sup>th</sup> February, 2008 with spacing of 30 cm x 10 cm in a flat bed of 3.0 m x 1.8 m dimensions. Soil type of the plot was medium black with good drainage. Recommended package of practices were adopted to raise crop successfully. Five plants were selected at random in each plot to record various observations on different characters. The yield was taken