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VL *Sabji Matar* 14: New garden pea (*Pisum sativum* var. *hortense*) cultivar with resistance to powdery mildew

VL *Sabji Matar* 14 (*Pisum sativum* L. var. *hortense*) is a new garden pea cultivar released for Agro-ecological Zone I (Uttarakhand), India. The cultivar was developed through hybridization between PC 531 and Pusa Pragati, followed by selection using the pedigree method. It belongs to the medium-maturity group and is resistant to powdery mildew. Additionally, it exhibits resistance to white rot, wilt, and leaf blight under field conditions and shows lower incidence of pests such as pod borer in mid-hill regions. The cultivar produces attractive, long, curved green pods—preferred by consumers—with 10–12 seeds per pod and a high shelling percentage (>50%). The average green pod yield ranges from 11 to 12.5 t/ha. VL *Sabji Matar* 14 is suitable for cultivation under both organic and inorganic production systems.

GARDEN pea (*Pisum sativum* L. var. *hortense*) is an economically important annual herbaceous legume vegetable, widely cultivated from the foothills to higher hills (NWH regions) and across the North Indian plains in different seasons. Varietal diversification is therefore essential for the early- and medium-maturity groups of garden pea. VL *Sabji Matar* 14 was developed through hybridization between PC 531 and Pusa Pragati, followed by selection using the pedigree method. The primary breeding objectives were medium maturity, green pods, and resistance to powdery mildew, wilt, white rot, and leaf blight. VL *Sabji Matar* 14 was tested under the designation VP 1018 in multi-location trials in Uttarakhand. Based on its performance in the State Varietal Trials, it was identified and recommended for release in Uttarakhand. Subsequently, in April 2021, VL *Sabji Matar* 14 was officially released and notified during the Central Sub-Committee Meeting on Crop Standard Notification and Release for Horticultural Crops (The Gazette of India, 2021).

VL *Sabji Matar* 14

The plants of VL *Sabji Matar* 14 are distinct in both growth and yield attributes. They are characterized by a plant height of 70–80 cm, 2–3 branches, and the first flower appearing at the 11–13th node. The foliage is green and normal, with two white flowers per peduncle. Pods are curved and green, mostly double pods per peduncle, with 15–20 pods per plant, 180–200 pods/kg, pod length of 8.5–11 cm, and 9–11 sweet seeds per pod. Shelling percentage is 50–55%, and seeds are greenish-yellow, wrinkled, and bold. The crop exhibited 50% flowering in 90–95 days, and the first green pod picking occurs in 128–132 days under mid-hill conditions (1,250 m above sea level).

Pods of VL *Sabji Matar* 14 (VP 1018)

Cultivation

Garden peas thrive best in relatively cool weather, as flowers and young pods are highly susceptible to frost. Hot, dry weather interferes with seed setting and reduces pod quality. Peas grow best in regions with a gradual transition from cool to warm weather. Seeds can germinate at a minimum temperature of 5 °C, with optimum germination at around 22 °C. The crop can be grown on light sandy soil, silt loam, or clay soil, although light soil is preferred for

early varieties. The soil should be well-drained, and waterlogging should be avoided, as excess moisture is harmful. The most favourable soil pH is 6.5–7.0; if it falls below 6.0, appropriate liming should be applied.

Being a leguminous crop, peas require minimal nitrogen. For VL *Sabji Matar* 14, 20 t/ha of farmyard manure along with 20 kg N, 60 kg P_2O_5, and 40 kg K_2O per ha should be applied during land preparation. The recommended seed rate is 100 kg/ha, with a spacing of 30 cm between rows and 10 cm between plants within a row. VL *Sabji Matar* 14 is recommended for sowing during 10–15 November at altitudes of 1,800–2,000 m AMSL. Hoeing should be performed at 30 and 60 days after sowing (DAS).

CONCLUSION

VL *Sabji Matar* 14 is a new medium-maturity variety of garden pea developed for the hilly regions of Uttarakhand. It is expected to enhance the productivity of garden pea in these areas and contribute to varietal diversification. As an off-season crop, it can also help improve the socio-economic status of hill farmers, particularly those in remote regions.

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–Editor