N K Hedau*, G V Chaudhari and Hanuman Ram

VL Sabji Matar 13: Early garden pea cultivar

'VL Sabji Matar 13' (*Pisum sativum* L. var. *hortense*) is new garden pea cultivar released for Agro-ecological Zone I (Uttarakhand) of India. The cultivar was developed by hybridization between VP 272 × Arkel followed by selection using pedigree method. Being early in maturity, therefore, it escapes powdery mildew. In addition, it also possesses resistance against white rot, wilt and leaf blight diseases under field conditions. It has less incidence of pests like pod borer under mid hills conditions. It has attractive green longer curved pods (high consumer liking), more seeds/pod and high shelling per cent. The average green pod yield is 11-13 t/ha. It is suitable for cultivation under both organic and inorganic conditions.

GARDEN pea (*Pisum sativum* L. var. *hortense*) is an economically important annual herbaceous legume vegetable being widely cultivated from foothills to higher hills (north-western Himalayan regions) and North Indian plains (Sub tropical zone) at different seasons in the country. Therefore, varietal diversification is the key for early and medium maturity groups of garden pea. 'VL Sabji Matar 13' was developed by hybridization between VP 272 X Arkel followed by selection using pedigree method. Early maturity, dark green pod coupled with resistance to wilt, white rot & leaf blight were the major breeding objectives for the development of the cultivar. 'VL Sabji Matar 13' was tested in the name of VP 907 in multi-location trials. On the basis of its performance in State Varietal Trials, Uttarakhand, 'VL Sabji Matar 13' was identified and recommended for release for Uttarakhand. Later, in February 2019, 'VL Sabji Matar 13' was released and notified during the meeting of Central Sub-Committee on Crop Standard Notification and release for Horticultural Crops (The Gazette of India, 2019).

VL Sabji Matar 13

The plants of VL Sabji Matar 13 are quite distinct in both growth and yield attributes. It is characterized by 65-75 cm plant height, 2-3 branches, first flower appears at 9-11th node, green foliage, leaf normal, one/two white flowers/peduncle, green curved pod as shown in Fig. 1, single & double pods/peduncle, 12-20 pods/ plant, 175-190 pods/kg, 8-10 cm pod length, 8-10 sweet seeds/pod, 48-50% shelling and greenish-yellow wrinkled bold seeds. It exhibited 50% flowering in 70-80 days (Mid hills 1250 m above sea level), early maturity, 120-125 days (First picking) in hills.

Cultivation

The garden peas thrive best in a relatively cool weather. The flowers and young pods are badly affected by frost. Hot dry weather interferes with the setting of seed and lower the quality of pod produced. Peas grow best in those sections where there is a low transition from cool to warm weather. The seeds can germinate

Pods of VL Sabji Matar 13 (VP 907)

even at a minimum temperature of 5°C and the optimum temperature for germination is about 22°C. Garden pea can be grown on light sandy soil, silt loam or clay soil. Light soil is better for growing early varieties. The soil should be well drained and waterlogging should be avoided. Soil with excess moisture is harmful to the plant. The most favorable range of *p*H is between 6.5 to 7 and if it falls below 6.0, the land will receive adequate dressing of lime. Pea does not require much nitrogen as it is a leguminous crop. At time of land preparation 10-15 tonnes farmyard manure and 20 N, 60 P_2O_5 and 40 K_2O kg per hectare should be applied in the soil for successful cultivation of VL Sabji Matar 13. The seed rate is 100 kg seeds per hectare with the spacing of 30 cm between row and 10 cm between plants within row. 'VL Sabji Matar 13' is recommended for sowing from 15th August- last week of August (1,800-2,000m amsl altitude). Hoeing should be done after 30 DAS and 60 DAS.

SUMMARY

VL Sabji Matar 13 is a new addition to the list of early maturity varieties of garden pea for Uttarakhand hills. This will help to improve the productivity of garden pea in hilly regions of Uttarakhand and to gain strength in varietal diversification of these areas. Being off-season produce certainly it will also help to improve the socio-economic status of the hill farmers, especially in remote hilly areas.

For further interaction please write to:
Dr N.K. Hedau, Principal Scientist, Crop Improvement Division, VPKAS, Almora 263 601 Uttarakhand *Corresponding author
e-mail: hedaunirmal_2003@yahoo.co.in