

## Notification of crop varieties and registration of germplasm

### Notification of VL *Gehun* 892

VL *Gehun* 892 (IC 554608) is spring wheat (*Triticum aestivum* L.) variety developed by Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora, Uttarakhand and released by Central Sub-Committee on Crop Standards, Notification and Release of Variety vide Notification No. 1108 (E) the Gazette of India dated 8<sup>th</sup> May 2008. VL *Gehun* 892 is broadly adapted under late sown restricted irrigation conditions of Himachal Pradesh and Uttarakhand. It has performed well in comparison to all the checks, namely, HS 295, Sonalika and HS 420. It has early maturity and high grain filling rate, nutritionally rich, high yielding and rust resistance.

VL *Gehun* 892 was derived from the cross WH 542/PBW226 following a modified bulk pedigree breeding method. WH 542 was chosen one of the parent because of its high grain yield, rust resistance, high iron, zinc and copper content and the other parent PBW 226 is characterized for earliness and high grain weight. The F<sub>1</sub> was developed in 1995-96. Five plants were selected in F<sub>2</sub> on the basis of agronomic suitability and rust resistance. Subsequently, the F<sub>3</sub> and F<sub>4</sub> generations were bulk harvested. From F<sub>5</sub> to F<sub>6</sub> it was handled under a typical pedigree selection. Prior to its release VL *Gehun* 892 was evaluated in station trial, 13 advance varietal trails at 7 different locations in Himachal Pradesh and Uttarakhand states of northern hills during 2004-05 to 2006-07 under All India Wheat Coordinated Late Sown Restricted Irrigation conditions (pre-sown irrigation only) Trials organized by the Directorate of Wheat Research, Karnal. The early growth habit of VL *Gehun* 892 is semi-erect. Its foliage color is light green but at the flowering stage, VL *Gehun* 892 the whole plant develops a layer of wax on leaf sheath and peduncle plants are semi tall of about 79 cm in height. At maturity the ears become white. The spike is tapering in shape with intermediate density. The average days to maturity are 143 that is *at par* with Sonalika (144 days) the earliest maturing variety. In multi-location trials in northern hills of India, VL *Gehun* 892 gave an average grain yield of 37.6 q/ha which was 8.4, 7.7 and 3.6% higher than the checks Sonalika, HS 420 and HS 295, respectively. Under different dates of sowing at Bajaura, Malan and Shimla at the flowering stage gave 2.99 % higher yield in late sowing conditions as compared to checks. The average coefficient of infection (ACI) of 4.8 for brown rust recorded on VL *Gehun* 892 under multi-locations with only 10S as highest score. VL *Gehun* 892 possesses *Lr13*, *Lr+10+* genes for brown rust resistance and *Yr9+* for stripe rust resistance. VL *Gehun* 892 is also resistant to most threatening pathotypes, 46S119

and 78S84 of stripe rust. The average protein content of 10.95% and sedimentation value of 38 ml suggesting that this genotype is better suited for chapatti. The presence of 2+12 *Glu* D1 subunit of high molecular weight glutenin further added value in chapatti making characteristics. (score 6.92 out of 10). The high hectolitre weight of 79.9 kg/ha indicates a very good flour recovery during milling. VL *Gehun* 892 possesses 37.2 ppm of iron, 35.7 ppm of zinc, 4.79 ppm of copper and 49.8 ppm of manganese. The iron content is lesser than Sonalika but higher in comparison to HS 291 and HS 420 (34.3 & 59.7). The zinc content is also higher in comparison to checks, HS 295 (19.0%), Sonalika (7.9%) and HS 420 (8.8%). The increase in copper content by 3.9% over HS 295, by 9.6% over Sonalika and 5.3% over HS 420 was also recorded. Similarly the manganese content is higher by 6.6% of HS 295, 2.3% of Sonalika and 21.5% of HS 420. Therefore, VL *Gehun* 892 is presumed to be a nutritionally richer variety as compared to HS 295, Sonalika and HS 420 being largely cultivated under late sown conditions in hills.

Lakshmi Kant, S. K. Pant, V. Mahajan,  
K. A. Gopinath and H. S. Gupta

Vivekananda Parvatiya Krishi Anusandhan  
Sansthan (ICAR), Almora 263 601

### Notification of 'Vivek QPM 9' for Himalayan Hills and Peninsular Region

'Vivek QPM 9' is a single cross hybrid (VQL 1 x VQL 2) developed by Vivekananda Parvatiya Krishi Anusandhan Sansthan (ICAR), Almora and was identified by All India Annual Workshop and subsequently released by Central sub-committee on crop standards, Notification and Release of variety Vide Notification No. SO 2458 (E) dated 16.10.2008 for the commercial cultivation in Zone I (J&K, HP and UK) and Zone IV (Maharashtra, Karnataka, Andhra Pradesh and Tamil Nadu). 'Vivek QPM 9' was selected as a hybrid in station trial for yield and other ancillary attributes in Experimental farm, Hawalbagh and subsequently tested in co-ordinated programme (IET/AET) as 'FH 4567' for three years by All India Co-ordinated Research Project. 'Vivek QPM 9' was evaluated in Zone I at Almora, Bajaura, Kangra, Barapani and Zone IV at Hyderabad, Karimnagar, Mandia, Coimbatore, Kolhapur and Arbhavi in these three years. 'Vivek QPM 9' is QPM version of the most successful single cross hybrid Vivek Hybrid 9', developed through conversion of its parental lines through marker assisted selection strategy complementary to conventional hybrid breeding method.