



VPKAS



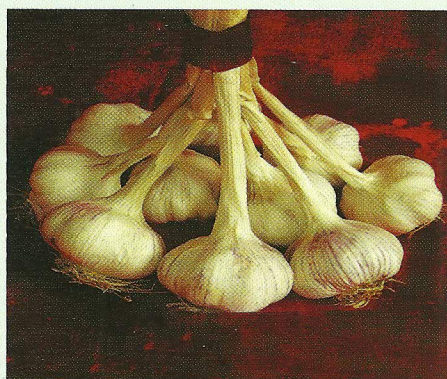
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NEWSLETTER

Research Highlights

Variety Notified

VL Lahsun 2: VL Lahsun 2, long day type was notified by CVRC for Zone-I tested at 5 locations viz., VPKAS, Almora; CITH, Mukteshwar; UHF, Solan; IARI Station Katrain and CITH, Srinagar. This has out yielded the national checks G 282 (18,193 kg/ha), VL Garlic 1 (18,435 kg/ha) and G 41 (19,060 kg/ha) by 70.98, 48.87 and 44.74 per cent, respectively in Zone-I. In addition, it also possessed higher bulb weight (30-38 g/bulb), less storage loss and high TSS ($^{\circ}$ Brix) (37.3) in



comparison to all entries including checks. Besides high yield and bulb quality, it also showed resistance against purple blotch and stemphylium blight as compared to checks varieties.

Varieties Identified

- Garden pea entry VP 434 (resistant to powdery mildew) was identified in medium maturity for Zone I & IV by AICRP-VC at Pantnagar.
- Basmati rice entry, VL 31077 was identified by SVT for release in Uttarakhand hills.
- Finger millet variety VL Mandua 348 was identified by SVT for release in Uttarakhand hills.
- Single cross hybrid of maize, namely, FH 3483 has been identified by VIC, AICRP Maize for release in Zone I, II, III and IV.

Research Achievements

Plant Growth Promoting Bacteria Isolated from Vegetables

Forty-five bacteria were isolated from three vegetables (Lahi, Onion and Garden pea) rhizospheric/ rhizoplane/ endophyte on four selective and non selective media at 28 $^{\circ}$ C. These were screened for plant growth promoting traits

(phosphate solubilization, IAA, siderophore, HCN and Ammonia production) under *in-vitro* condition. Finally ten potential



Isolation and purification of plant growth promoting bacteria from vegetables

Diversity and *in-vitro* screening of PGP isolates for various plant growth promoting traits

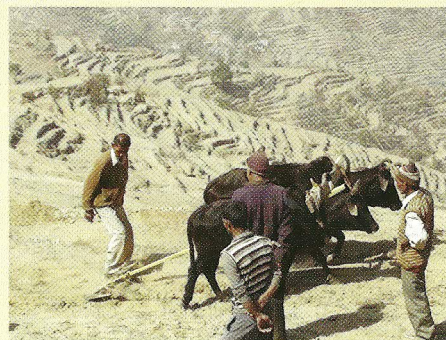
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isolates were selected for further studies. Qualitative estimation of phosphatase activity by bacterial isolates revealed that out of forty five, 5 isolates ORs1, OERs6, ORs10, LRs3 and LERs18 showed strong phosphatase activity at 28°C. Bacterial isolates LRp10 and LRp9 showed the highest IAA production (at 60.8 µg ml⁻¹ and 60.5 µg ml⁻¹) after five days of incubation.

VL Syahi Hal

Hill farmers generally use the locally available traditional wooden Hal (plough) which is

being made by cutting different tress like *Banjh*, *Utish* etc. Continuous cutting of trees over the years gradually reduce the natural forest cover in hills thereby creating an adverse effect on the environment and water availability in the natural streams. In addition to this, the farmers face difficulty due to frequent break down of wooden part in the traditional Hal. Considering the difficulties, VL Syahi Hal has been developed as an alternate solution to the traditional Hal by fabricating the Hal with iron. This Hal can be used for ploughing as well as levelling the fields. The weight has also been



VL Syahi Hal in operation

kept within 12-14 kg to make it convenient on transportation. Necessary arrangement for changes have been made as per the height of the bullocks as well as farmers to control the depth of ploughing.

Other Activities

- The Memorandum of Understanding (MOU) has been signed between CSK HPKVV, Palampur (HP) and VPKAS, Almora (Uttarakhand) on May 3 for better coordination on research and extension activities.

- Stakeholders-Scientists interaction meeting was held at institute's experimental farm Hawalbagh on Feb. 2. Shri M.C. Joshi, Former Director, DARL, was the chief guest. Dr. Y.P.S. Dabas, Director Extension GBPUA&T, Pantnagar, Dr. P.S. Bisht, Dean College of Horticulture, Uttarakhand University of Horticulture and Forestry, Bharsar, Dr. P.S. Bisht, Dean College of Forestry, Ranichauri, representatives of NABARD, DIBER, state department, industry,



farmers, NGOs and scientists of the institute participated in the meet. Discussions were held in view of hill agriculture, strategies

meet out the challenges, bridge the yield gaps and opportunities.

- A sensitization workshop on 'Protection of Plant Varieties and Farmers Rights Act 2001' was organized at the institute on Feb. 3. Dr. J. C. Bhatt, Director, VPKAS in his opening remarks emphasized on documenting the traditional knowledge associated with hill agriculture and importance of the subject. Dr. H.S. Chawla, Head, Department of Plant Breeding and Genetics, GBPUA&T, Pantnagar presented the various provisions of the Act. Dr. K.S. Negi, Principal Scientist, NBPGR R/S Bhowali gave a talk on the benefit sharing mechanism under the Act. More than 100 farmers, NGOs representatives and scientists participated in the workshop.



• A VPKAS-Industry meet was held at Experimental Farm, Hawalbagh on May 30 under the Chairmanship of the Director. Representatives of industry and scientists of the institute participated in the meeting. Presentations on the technologies commercialized by the institute and those which are available for commercialization were made by



Dr. P.K. Agrawal, Chairman, ITMU, supplemented by the scientists. The participants showed keen interest in high yielding varieties and implements for hill agriculture. They also visited the museum, laboratories, PHT workshop and other facilities.

• Institute Management Committee meeting was held on Mar. 13 under the Chairmanship of Director of the institute.

• Institute Research Council (IRC) meeting for *Kharif* 2012 was held on May 18-19.



• '*Kisan Mela*' was organized at Experimental Farm, Hawalbagh on Mar. 24. Padam Bhushan Shri Chandi Prasad Bhatt, Environmentalist and Founder of Dasholi Gram Swarajya Sangh (DGSS), Gopeshwar (Chamoli) Uttarakhand, was the chief guest of the function. He and the other dignitaries visited the farm and appreciated the technologies developed by the institute. More than twenty exhibition-cum-sale stalls were put by various line departments, institutes and NGOs. About 800 farmers from different localities participated in *Mela*. On this occasion '*VL Shyahi Hal*' was launched and '*Krishi Calander*' was released. A farmer-scientist interaction meet was also organized.



• Farmer Fairs were organized on Mar. 17 and Mar. 18 in tribal areas of Dharchula and Munyari districts of Pithoragarh in Uttarakhand, respectively under Tribal Sub Plan.



• A field day on wheat was organized on Apr. 20 at Chauna village in Bageshwar.

• Eleven trainings on various aspects of hill agriculture were conducted at Experiment Farm, Hawalbagh on Feb. 13-19, 23-29, Mar. 1-2, 21-23, 24-25, Apr. 4-6, 11-13, Apr. 30 to May 2, Jun. 2-4, 6-8 and 11-13.

• The institute received *Krishi Sansthan Samman* under Mahindra Samridhi India Agri Award 2012

for its outstanding contribution in the field of development of agricultural technologies and their effective extension to the farmers' field. The award was given by Hon'ble Minister of Agriculture, Govt. of India Shri Sharad Pawar ji to Dr. J.C. Bhatt, Director of the institute on Feb. 21.



New Colleagues

- Er. Sukhbir Singh, Sr. Scientist (FM&P) on Mar. 19.
- Dr. Sher Singh, Sr. Scientist (Agronomy) on Mar. 23.
- Dr. Rajesh Kumar Khulbe, Sr. Scientist (Plant Breeding) on Apr. 3.
- Dr. Hrittick Biswas, Sr. Scientist (Soil Science) on Apr. 9.
- Dr. Anubhuti Sharma, Sr. Scientist (Biochemistry) on May 21.
- Mr. H.L. Meena, Administrative Officer on Jun. 25.

Promotion

- Mr. Sanjay Kumar Arya, Technical Officer T-5 to Technical Officer T-6 w.e.f. Apr. 17, 2011.

Retirement

- Mr. A.A. Khan, Driver, T-4 on Apr. 30.
- Mr. Mahesh Lal, Administrative Officer on Jun. 30.

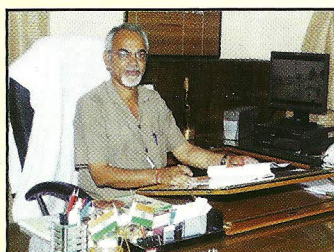
Transfer

- Dr. Arun Gupta, Sr. Scientist to DWR, Karnal on Mar. 29.
- Dr. Udaya Bhaskar Khetinini to DSR, Mau on Jun. 14.

Activities of Krishi Vigyan Kendras

Activities	KVK, Chinyalisaur
Trainings	52 (1,257 trainees)
FLDs	27 ha (590 beneficiaries)
	KVK, Bageshwar
Trainings	49 (1,079 trainees)
FLDs	18.51 ha (402 beneficiaries)

From Director's Desk



VPKAS under the aegis of ICAR has been engaged in various activities of agricultural research including development of high yielding varieties of different hill crops, their production and protection technologies, development of small tools *etc.* and their extension by providing training to farmers on improved technologies. During last six months, one variety of garlic **VL Lahsun 2** has been notified. Besides, 4 entries *viz.*, VP 434 in garden pea, VL 31077 in rice, VL Mandua 348 in finger millet and FH 3483 in maize have been identified. To maintain the environment and reduce felling down of trees in hills, *VL Syahi Hal* has been developed as an alternate solution to the traditional *Hal* (plough) by fabricating it with iron. The Institute also received **Krishi Sansthan Samman** under Mahindra Samridhi India Agri Award 2012 for its outstanding contribution in the development of agricultural technologies and their popularization among farmers. The institute also signed the MOU with CSK HPKV, Palampur, H.P. for better coordination on research and extension activities.

(J.C. Bhatt)

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