From the Director’s Desk

Hill agriculture is being constantly challenged by deteriorating soil quality, changes in the climate and erratic rainfall. Even then, the invisible thread that binds the people across the mountain villages is agriculture; partly traditional and partly modern. The government agencies, both at the central and state level, are working at their fullest strength to improve targeted agricultural production aiming at doubling farmers income by 2022. The recent success in pulse production in the country is a testimony of that. ICAR-Vivekananda Pravatiya Krishi Anusandhan Sansthan is also constantly trying to contribute to this effort of the government. In this direction, several new crop varieties, management techniques and efficiency improving implements have been brought to public domain by the institute over the last six months. Also, a number of training and demonstration programmes were conducted by the institute and the two KVKs attached to it. The institute and KVK staff also made significant contributions in human resource development and improving quality of life in general. In the following sections a brief picture of the activities of the institute over the last six months is presented. Any suggestion to improve the quality of output/service is welcome.

(Arunava Pattanayak)
Director

Varieties Identified

Changing climate, soil property and market demand necessitates appropriate technological intervention to keep agriculture profitable. In this mission, the institute makes constant efforts to increase productivity of hill crops by introducing new varieties.
उत्तराखण्ड के लिये पहचानी गयी सब्ज़ी मटर की तीन प्रतिबिंबियाँ

अंग्रेजी परियोजना अंतिम वाली सब्ज़ी मटर प्रमिति '01-06, 907 मटर परियोजना क्षेत्रों में 124 से 125 दिन में परिमित (हरी फलियों) होती है तथा इसकी औसत हरी फली उद्र भी. इंग्लिश मटर '7 की तुलना में 19.26% प्रतिशत अधिक दर्ज हुई है। अंग्रेजी परियोजना अंतिम वाली दो सब्ज़ी मटर प्रतिबिंबियाँ तथा यह 150-155 दिन में पक कर तैयार होती है।

Three Garden pea entries identified for Uttarakhand

The early maturing garden pea entry VP 907 matures in 124-125 days in mid hill and shown 19.26% mean green pod yield superiority over the Check VL Ageri Matar 7. Two medium maturing garden pea entries viz., VP 1018 and VP 1208
वी.पी. 1018 एवं वी.पी. 1208 ने वियंबक मन्द 11 की जीवित हरी फली उपज की तुलना में क्रमशः 21.50 और 23.50% प्रतिष्ठात अधिक उपज प्रदर्शित की है।

दोनों प्रतिष्ठानों सूचित जीवन वांग के लिए प्रतिष्ठात है और इनमें अधिक हरा दाना प्रतिष्ठात (50 प्रतिष्ठात से अधिक) भी है।

शोष्ठ उपलब्धियां

सम्पूर्ण फली खाने योग्य व दोहरे उद्देश्य वाले मटर के आशाजनक नए जीनप्ररूप

सभी मटर में शेयरिंग (हरा दाना) प्रतिष्ठात लगभग 45 से 50 प्रतिष्ठात ही होता है, अथवा फलियाँ का 60 से 65 प्रतिष्ठात हिस्सा फलक के रूप में बेकरा हो जाता है। यह अनमोल की समस्या फली व दोहरे उद्देश्य वाले सभी मटर द्वारा दूर हो जाती है जो कि जैवविज्ञानिक रूप से साइडेक्सिक वर्ग माइक्रोक्रिकोन साइबरियन रूप में शामिल है।

संख्याएँ में बढ़तिन किये गए निम्नलिखित पूर्ण फली वाली उन्नतशील जीनप्ररूपों का संकल्पना के प्रायोगिक क्षेत्र हवल्लाग (1250 मी. समुद्र सतह से ऊँचाई) और पूर्व.पूर्व.पूर्व. पुनर्युग्म (2250 मी. समुद्र सतह से ऊँचाई) में उपाय गया। दोनों शाखाओं में पार्सेंट पता के लिए वर्तमान क्रम में खाद्य और तीन लाख, वी. पी. एस.पी. 1301, वी. पी. एस.पी. 906-1 और वी. पी. एस.पी. 1332 की फलियाँ में पार्सेंट पाठ की अपूर्णता के कारण पूर्ण फली खाने योग्य के रूप में उपयुक्त नहीं गयी।

Research Achievements

New promising whole pod edible dual-purpose pea genotypes

Shelling percentage in garden pea accounts around 45-50%, which means around 50 to 55% of the pods goes as waste in the form of pod walls. This wastage can be overcome by developing whole pod edible peas, which are botanically grouped under Pisum sativum var. macrocarpon.

Following edible pod type advance lines developed in the institute were evaluated at Experimental farm, Hawalbagh (1250 amsl) and at High Altitude Testing Site (HATS), Mukteshwar (2250 amsl). Pods were checked for the parchment layer and three high yielding lines viz., VPSp 1301, VPSp 906-1 and VPSp 1332 were found suitable as edible pod pea due to absence of parchment layer in their pod walls.

बाँसानी सोयाबीन—गेहूं प्रणाली में मूदा एंजाइम कार्यक्षण/गतिविधि पर दीर्घावधि पोषक तत्त्व प्रबंधन का तुलनात्मक प्रभाव

मूदा एंजाइम विभिन्न पोषकतावर दोषों के साथ अलग-अलग प्रतिष्ठात देते हैं जिससे विभेदक मूदा एंजाइमों की गतिविधि के आधार पर पतझड़ की सामूहिक उत्पादकता या स्थायित्व के बारे में कोई भी सुनिश्चित प्रत्येक नहीं है। तब एक व्यापक इकाई गतिविधि मूदा प्रदर्शन करने के लिए, मूदा एंजाइम

Comparative influence of long term nutrient management on soil enzyme activity index under rainfed soybean-wheat system

Estimation of individual activity of different soil enzymes will not provide any clear information about overall productivity or sustainability of crops, as enzymes respond differently to different nutrient sources. Therefore, Soil Enzyme Activity Index (SEA)
was developed to provide a single comprehensive unitless value. SEAI and Sustainable yield index (SYI) of rainfed soybean-wheat cropping system were evaluated after 43 years with different nutrient management. Addition of 10t FYM/ha to recommended NPK provided 18 and 161% higher SEAI and sustainable yield index (SYI) as compared to the application of recommended chemical fertilizer only. As SEAI has a very good relationship ($R^2 = 0.9683$) with SYI, the former strongly influence the later. This clarified SEAI is a good indicator of SYI (Fig. 1).

**VL White grub Beetle Trap designed and developed by ICAR-VPKAS, Almora is now patented**

The VL White grub beetle trap, which is designed and developed by ICAR-VPKAS, Almora has been granted a patent on 30.11.2017. The light trap is designed specifically based on the behaviour of the white grub/ scarab beetles, so as to trap them while excluding the other insects, attracted to the light. Scarab beetles hover around the light source in circular fashion and thus, three hitting fins are arranged to have maximum success in hit and capture. The uniqueness of the trap lies on the space given between the light source and the hitting fins and the gap between the funnel stem and the collection pot. The space between the light source and the hitting fins allow the weak fliers attracted towards light to pass on and not getting hit and trapped. The gap between the stem of the funnel and collection pot allows some other lighter insects to escape. The trap is found to capture 68% of scarab beetles, 32% others (mostly of Isoperta and Lepidoptera) and a negligible amount of beneficial insects to a tune of <0.8%, which shows it as a white grub specific trap. The trap is made of 24 guage tin sheets and the hitting fins itself act as a light reflector at night. A trap normally captures around...
10,200 beetles per season (June to October) in the first year of installation at a site and around 5,000 beetles in the second year at the same place which reduce to 800 in the fifth and sixth year. The VL Whitegrub beetle trap is well popularized in Uttarakhand through the efforts of the institute and state department of Agriculture through trainings and demonstrations.

Activities of Krishi Vigyan Kendras

Training programmes on different aspects of hill agriculture were organized at KVK Uttarkashi and Bageshwar for the farmers of respective districts. Apart from this, extension of improved technologies as front line demonstrations were also conducted at farmers field by KVKs.
भाषामंडल गाँव में आयोजित अलखर पर प्रशंसा दिवस

24 नवम्बर 2017 के दौरान, निदेशक, एन.आई.एल.आई.आर.डी. सिद्धि आयोग
अलमोड़ा जा. एम.आर. प्रसाद का कृषि विज्ञान केन्द्र, काफ़िलगाँव में चरण

विशेष अवसरों

• भाकू-अनुप-विद्येकान्त पर्वतीय कृषि अनुसंधान संस्थान अल्मोड़ा
ने 4 जुलाई, 2017 अपना 94वाँ स्थापना दिवस मनाया। इस अवसर
पर डा. पी.पी. विद्यार्थी, निदेशक, नोविन्ड बलभ संरक्षण हिमालयी
बाणार एवं संतुलित विकास संस्थान, कोलकाता, अल्मोड़ा मुख्य
अध्यक्ष रहे।

विशेष अवसरों

• ICAR-Vivekananda Parvatiya Krishi Anusandhan Sansthan
celebrated its 94th Foundation Day on July 4, 2017. Dr. P.P.
Dhyani, Director, Govind Ballabh Pant National Institute
for Himalayan Environment and Sustainable Development,
Kosi, Katarmal, Almora was the Chief Guest on the occasion.

पर्वतीय कृषि दर्शन, जुलाई-दिसम्बर, 2017

VPKAS Newsletter, July-December, 2017
**Prize Distribution during 94th foundation Day**

- Nagar Rajbhasha Karyanwatan Samiti constituted by Home Ministry, Rajbhasha Vibhag, GOL for Almora held its sixth monthly meeting on July 28, 2017 at ICAR- Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora.

- An Extension Worker’s Training Programme entitled “Kharif Phasalon ka utthapan badane hetu prasikshan karyakram” was organized at the ICAR-VPKAS, Hawalbag in three batches during 20th—29th July 2017. Ninety extension workers from Uttarakhand state department under ATMA scheme participated in this training programme.

- Under Swachhta Abhiyan, Swachhta Pakhawara was organized at ICAR-VPKAS, Almora during September 15 to October 02, 2017. Under this, various activities, like Seva Dinwas, Cleanliness Awareness Programmes, Competitions, goshthi etc. were organized.

- Rabi Kisan Mela was organized on October 07, 2017 at Experimental Farm, Hawalbag.

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**रवी किसान मेला**

Rabi Kisan Mela
• माकुअनुप द्वारा विशिष्ट संख्या पुरस्कार के अन्तर्गत संस्थान को तृतीय पुरस्कार दिया गया।
• संस्थान जेब सुरक्षा समिति की बैठक का आयोजन निदेशक माकुअनुप-द्विपुणानुसार, अनोखा की अध्यक्षता में नवम्बर 03, 2017 को किया गया।
• जी 2017-18 के लिए संस्थान अनुसंधान परिषद की बैठक का आयोजन प्रशासनिक प्रश्नों, हवालेवाग में नवम्बर 07, 2017 को किया गया।
• संस्थान में पर्यावरण कृषि में उन्नत उल्लंघन तकनीकी विषय पर एक मॉडल प्रशिक्षण कार्यक्रम का आयोजन नवम्बर 13-20, 2017 तक किया गया।

• The institute has been declared as 3rd prize winner for the special Swachhita Award from ICAR.
• The Institute Biosafety Committee meeting was held on November 03, 2017 under the chairmanship of the Director, ICAR-VPKAS, Almora.
• Institute Research Council (IRC) meeting for Rabi 2017-18 was held at Experimental Farm, Hawalbag on November 07, 2017.
• A model training course on “Improved Crop Production Technologies in Hill Agriculture” was organized at the institute from November 13-20, 2017.

• On the occasion of birth anniversary of nation’s first President and first Union Agriculture Minister, Bharat Ratna Dr. Rajendra Prasad, 3rd December 2017 was observed as Agricultural Education Day.
• A two days in-house Capacity Building Training program was organised for thirty-four Skilled Supporting Staff of ICAR-VPKAS, Almora at Experimental Farm, Hawalbag during December 4-5, 2017.
World Soil Day was celebrated on December 05, 2017 at the institute. On the occasion Shri Raghunath Singh Chauhan, Hon’ble Deputy Speaker, Uttarakhand Vidhan Sabha and MLA, Almora was the Chief Guest.

The Institute Management Committee Meeting was held on December 27, 2017 under the chairmanship of the Director, ICAR-VPKAS, Almora.

Human Resource Development

Dr. R.S. Pal, Scientist attended Summer School on Analytical, instrumental and imaging techniques relevant to food safety management during July 6-26, 2017 at ICAR-CIAE, Bhopal.

Dr. G.S. Bisht, Sr. Technical Officer attended training programme on ICAR-ERP during July 17-22, 2017 at ICAR-IASRI, New Delhi.

Mrs. Radhika Arya, AAO attended Orientation Training Programme on Goods and Service Tax during Aug. 18, 2017 at ISTM, New Delhi.

Dr. Renu Jethi, Scientist attended MANAGE training programme on Navigating ICTs for Agricultural Extension during Sep. 4-7, 2017 at MANAGE, Hyderabad.

Dr. R.P. Yadav, Scientist attended 21 days Summer School training on Developing Strategies for doubling farm income in low rainfall areas during Sep. 5-25, 2017 at ICAR-CAZRI, Jodhpur.

Dr. Mahipal Chaudhory, Scientist attended 10 days training on Experimental Design and Statistical Data Analysis during Sep. 10-20, 2017 at ICAR-IASRI, New Delhi.

Mr. O.P. Vidyarthi, T.O. attended training programme on competence enhancement on Motivation and Positive Thinking during Sep. 13-22, 2017 at ICAR-NAARM, Hyderabad.


• श्री एच.सी. जोशी, SMS attended model training course on Climate resilient agro-technologies for enhanced crop and water productivity under water- deficit agro-ecologies during Sep. 22-29, 2017 at ICAR-IARI, New Delhi.

• Mrs Renu Sanwal, T.O. attended training programme on Computer Application for technical Staff of ICAR during Sep. 22-27, 2017 at ICAR IASRI, New Delhi.

• Dr. Renu Jethi, Scientist attended National Workshop on Developing a Roadmap for Agricultural Knowledge Management in India during Sep. 27-28, 2017 at NASC Complex, New Delhi.

• Mrs. Nidhi Singh, Programme Assistant attended model training course on Integrated crop management practices for enhancing productivity resource- use efficiency, soil health and livelihood security during Oct. 3-10, 2017 at ICAR-IARI, New Delhi.

• Shri Prahlad Singh, T-1 attended model training on Layout and maintenance of field experiments and recording observation during Oct. 3-12, 2017 at ICAR-IARI, New Delhi.

• Dr. J.P. Aditya, Scientist attended 21 days training programme on Enhancing germplasm use through prebreeding evaluation and frontier during Oct. 24 - Nov. 13, 2017 at Plant Breeding and Genetics, PAU, Ludhiana.

• Dr. Nirmal Hedau, Pr. Scientist attended workshop for Liaison Officer for SCs/STs during Nov 2-3, 2017 at ISTM, New Delhi.

• Dr. V.S. Meena, Scientist attended ICAR sponsored training workshop on Advances in Simulation Modeling and Climate Changes Research Towards Knowledge based agriculture during Nov. 16 - Dec. 6, 2017 at ISTM, New Delhi

• Dr. P.K. Mishra, Pr. Scientist attended one day training-cum-awareness workshop on J-Gate @ CeRa for Northern Region during Nov 30, 2017 at DKMA, New Delhi.
Dr. Rakesh Bhowmick, Scientist attended 21 days training programme of Next generation sequencing and its applications in Crop Science Scheduled during Dec. 1-21, 2017 at ICAR-NRCPB, New Delhi.

Sri Chandan Singh Kanwal, T-5 attended training on Good Agricultural practices for enhancing resource use efficiency and farm productivity during Dec. 5-18, 2017 at ICAR-IARI, New Delhi.

Shri Ramesh Singh Kanwal, T-4 attended training on Good Agricultural practices for enhancing resource use efficiency and farm productivity during Dec. 5-18, 2017 at ICAR-IARI, New Delhi.

Mr. Narayan Ram, STA attended training programme on Good Agricultural Practices for enhancing resource use efficiency and farm productivity during Dec. 5-18, 2017 at ICAR-IARI, New Delhi.

Mr. Abhinav Singh, LDC attended training programme on Workshop on Advanced MS- Excel for Officers and Staff during Dec. 18-20, 2017 at ISTM, New Delhi.

Dr. B.M. Pandey, Sr. Scientist attended ICAR Sponsored CAFT training on Recent Developments in Statistical Modeling and Forecasting in Agriculture during Dec 28, 2017- Jan 17, 2018 at ICAR-IASRI, New Delhi.

Dr. Rajashekara H., Scientist attended 21 days training programme Whole genome sequencing of plant pathogens: Methods and Application during Dec. 29, 2017 to Jan. 18, 2018 at ICAR-IARI, Pusa, New Delhi.

**Retirement**

- Shri Pan Ram, Technical Officer on July 31.
- Shri N.C. Belwal, Asstt. Chief Technical Officer on October 31.
- Shri Bahadur Ram, Administrative Officer on December 31.

**Transfer**

- Smt. Shakku Goswami, Finanace & Accounts Officer to ICAR-IVRI, Bareilly on August 8.

**New Colleagues**

- Miss Usha Birdi, Assistant on July 27.
- Dr. Dinesh Joshi, Scientist (Plant Breeding) on August 2.
पदोन्नति
- श्री हनुमान राम, वैज्ञानिक (सब्जी विज्ञान), अक्टूबर 12।
- श्री मनोज परिहार, वैज्ञानिक (पौधा विज्ञान), अक्टूबर 12।

Promotion
- Dr. B. M. Pandey, Sr. Scientist to Pr. Scientist w.e.f. 02.07.2015
- Dr. J. Stanley, Scientist to Sr. Scientist w.e.f. 07.01.2017
- Dr. Jay Prakash Aditya, Scientist to Scientist (Higher RGP) w.e.f. 07.01.2014
- Dr. Anuradha Bhartiya, Scientist to Scientist (Higher RGP) w.e.f. 21.04.2015
- Dr. K. K. Mishra, Sr. Scientist to Pr. Scientist w.e.f. 01.02.2017

Shri S.K. Arya, STO to ACTO w.e.f. 17.04.2016.
Shri Dev Singh Panchal, TO to STO w.e.f. 15.02.2017
Shri Vijay Pal Singh, TA to STA w.e.f. 29.06.2016
Shri Krishan Lal, TA to STA w.e.f. 29.06.2016
Shri Nagendra Kumar Pathak, TO to STO w.e.f. 01.01.2017
Shri Jagdish Kumar Arya, STA to TO w.e.f. 17.01.2016
Shri Hari Govind, STO to ACTO w.e.f. 22.08.2016
Shri B.D. Pandey (Retired) STO to ACTO w.e.f. 24.02.2011
Shri N.C. Belwal (Retired) STO to ACTO w.e.f. 24.02.2011
Shri L.D. Melkani, STO to ACTO w.e.f. 01.01.2015
Shri M.S. Khatt (Retired) STO to ACTO w.e.f. 07.06.2012
Shri Ramesh Singh Kanwal, STA to TO w.e.f. 10.07.2017
Shri Narayan Ram, STA to TO w.e.f. 27.08.2017
Shri Manoj Bhatt, TA to STA w.e.f. 13.07.2017
Shri J.P. Gupta, TA to STA w.e.f. 09.08.2017
Shri Daya Shankar, TO to STA w.e.f. 05.10.2017
Smt. Radhika Arya, Assistant to AAO w.e.f. 27.07.2017
Shri Sundar Ram, Sr. Clerk to Assistant w.e.f. 25.07.2017
Shri Charu Chandra Joshi, Steno to Personal Assistant w.e.f. 12.12.2017

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