



GRAPE-NEWS

A Publication of National Research Centre for Grapes, Pune



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Director's Desk



During this period an Indo French Workshop was organized by inviting leading scientists from National Board for Agriculture and Fisheries of France Govt. to review the progress of ongoing collaborative project on the evaluation of French wine grape varieties and rootstocks which was commissioned on our experimental vineyard in 2008. During this work shop the French scientists visited the experimental area and noted their observations in respect of performance of wine varieties and rootstocks. After deliberations in the workshop, future plan of work was made. This in turn will help us in identification of suitable wine varieties and rootstocks for Indian condition.

ICAR Hub meeting was organized by the institute on 4th January 2013 by inviting all ICAR institutes, SAU and State Govt. officials of Pune region in order to deliberate the technologies developed by various organizations which have relevance for application in the region, their effective implementation through State Govt. extension officers and to avoid ongoing overlapping of research programmes among ICAR institutes and SAU in the region. This program was organized first time with the above objectives at this

institute in Pune wherein important personalities like VC, MPKV, Rahuri; Agriculture Commissioner of State Govt. and Directors of ICAR institute participated in deliberations in order to plan the future activities among participating organizations.

Institute has also undertaken DUS experimentation in collaboration with PPV-FRA in order to study available grapes varieties in the country. In this context a third task force committee meeting was held at institute by PPV-FRA in order to review the progress of ongoing DUS work at institute and plan the future programme with respect to grapes in the country and also to identify the other research stations under ICAR institutes and SAU and the research format for taking this work on long term basis. During the period, planting material of improved wine and table grape varieties and grape hybrids were distributed to the farmers and various organization besides State Centers in various parts of the country for sub-sequent distribution among farmers in the local region.

(P. G. ADSULE)

Research Activities

Enzyme activity during bud break after fruit pruning of Thompson Seedless grafted on different rootstocks

On apical 2 buds of Thompson Seedless vines grafted on Dogridge, 110R and own rooted vines, there was reduction in starch content from 1st day to 9th day after pruning. Highest starch concentration was recorded on own rooted vines followed by those on Dogridge rootstock on 1st day, while on 9th day, it was highest on Dogridge and least on own rooted vines. Amylase activity showed increasing trend with highest on own rooted vines followed by those on 110R rootstock. Peroxidase and PPO activity was highest in 110R rootstock while it was least on Dogridge on 0 day. However, it was highest in Dogridge on 9th day. Highest percent of bud break (56%) was recorded

on 110R followed by those on own roots (51%) on 12th day after pruning while it was least on Dogridge (36.82%).

The irrigation schedule for Cabernet Sauvignon

The irrigation schedule for Cabernet Sauvignon grapevines raised on 110R rootstock was standardized. The irrigation schedule with least irrigation application of 182.81 mm apart from total rainfall was found sufficient to provide yield and quality equivalent to other higher irrigation treatments and the treatment also recorded highest Water use efficiency of 103.42 kg of grapes/mm of irrigation water applied. Must quality with respect to phenols, total anthocyanins, tartaric and malic acid did not differ significantly between the treatments.

Honours / Recognitions / Awards

- Center's Annual Report has been chosen for the Best ICAR Annual Report Award 2011-12 among small institutes.
- Dr. Indu S. Sawant was awarded a certificate of merit and a memento at the hands of Shri Sharad Pawar, Hon'ble Union Minister of Agriculture for her significant contribution to agriculture in Maharashtra; on 1st December 2012, the occasion of Birth Century of Smt. Shardabai Govindrao Pawar.
- The article entitled, "Crop loss in grapes due to downy mildew infection on clusters at pre-bloom and post bloom stages under non-epiphytotic conditions" authored by Indu S. Sawant, et al. in Indian Journal of Horticulture was adjudged by the Horticultural Society of India as the Best Research Paper for the year 2010.
- Research paper entitled "Comparison of commercial and locally identified yeast strains in relation to young wine quality of Cabernet Sauvignon" by A. K. Sharma, S. D. Sawant, P. G. Adsule and Y. R. Rajguru has been awarded as Best Publication Award 2012 by Society for Advancement of Human and Nature, Dr. Y. S. Parmar University of Horticulture and Forestry, Solan.

Transfer of Technology

Participation in Grape Growers' Seminars

- Dr. S. D. Sawant, Dr. R. G. Somkuwar, Dr. S. D. Ramteke, Dr. J. Sharma and Dr. D. S. Yadav guided the grape growers in the regional 'Charchasatras' organized by MRDBS at Solapur and Nasik on 5th and 7th October 2012 respectively.
- Dr. S. D. Sawant, Dr. J. Sharma and Dr. D. S. Yadav participated and guided growers on organic farming and fertilizer usage at Field Day-cum-demonstration at Bedag (Sangli) on 22nd December 2012.
- Dr. S. D. Sawant, Dr. S. D. Ramteke and Dr. D. S. Yadav guided the registered grape growers for export and staff of the Department of Agriculture/Horticulture, Govt. of Maharashtra in the training programmes on 'Pesticide residue monitoring in grapes for export to European countries' organized at Pune, Nasik, Latur, Sangli and Satara on 24th, 27th & 29th December, 2nd January and 2nd February 2013 respectively.

Field Visits and Guidance to Farmers

- Dr. A. K. Sharma visited Four Seasons Winery and Vineyards on 26th October 2012. He discussed about

performance of varieties, rootstocks, training systems, training materials etc. Various winemaking practices and management of quality parameters of wines were discussed with winemaker.

Participation in Krishi Vigyan Mela

- The Centre participated in Pusa Krishi Vigyan Mela at IARI Campus, New Delhi during 6-8th March 2013. Research findings, charts and live samples of grapes, raisin and wine were displayed in exhibition stall.

Distribution of plant material

- Planting materials of Malbec (600 cuttings), CharArk-4 (40 cuttings), Petite Sirah (50 cuttings), 1103P (500 cuttings), Fantasy Seedless (50 cuttings), 110R (100 rooted plants), Sharad Seedless (50 cuttings) and Red Globe (2000 cuttings) were distributed to farmers and various organizations.
- Planting material of 15 wine grape hybrids (20 cuttings each) developed at the centre and one introduced variety Marquis were given to Mizoram centre for evaluation under Mizoram conditions.

Participation in Scientific Seminars / Symposia / Workshops / Meetings

- Dr. Indu S. Sawant and Ms. Shubhangi P. Narkar participated in the 5th Indian Horticulture Congress-2012 organized by The Horticultural Society of India, New Delhi and Punjab Agricultural University (PAU), Ludhiana at PAU, Ludhiana during 6-9th November 2012. Dr. Sawant also participated in the IPS National symposium on "Blending Conventional and Modern Plant Pathology for sustainable Agriculture" at IIHR, Bangalore, on 4-6th December 2012.
- Dr. G. S. Karibasappa attended Assessment Committee meeting for the selection of Professor in University of Agricultural Sciences, Dharwad on 10th November 2012. He also attended 3rd IMC meeting of National Institute of Abiotic Stress Management, Baramati on 16th March 2013.
- J. Satisha participated in the RFD meeting held at ICAR, New Delhi on 19th December 2012 alongwith the

Director. He also attended sensitization workshop for In charge - PME Cell on 8th December 2012 at NDRI, Karnal.

- Dr. A. K. Sharma participated in the National Workshop organized by ICAR on "Foresight and Future Pathways of Agricultural Research through Youth in India" on 1-2nd March 2013.
- Dr. A. K. Upadhyay visited Indian Institute of Integrative

Medicine (Jammu) on 10-12th October 2012, Punjab Biotechnological Incubator of India (Chandigarh) on 6th October 2012, UPASI Tea Research Institute (Valparai) on 19-20th October 2012 and Centre for Analysis and Learning in Livestock and Food Laboratory at NDDB (Anand) on 5th October 2012 to assess their capabilities and a detailed gap analysis in terms of infrastructure facilities and manpower resources of these organizations was carried out.

Human Resource Development

Deputation Abroad

- Dr. Roshni Samarth was deputed to undergo NAIP sponsored three months training in the field of Bioinformatics (Horticulture) from 15th September to 13th December at Cornell University, Ithaca, USA.

Training Given

- Two training programmes on 'Transfer of Technology for Production of Export Quality Grapes' for the employees of M/s. Mahindra Shubh Labh were organized at the Centre during 16-17th and 18-20th October 2012. Both the training programs were coordinated by Dr. S. D. Ramteke and Dr. J. Satisha. Altogether 33 participants participated in these programmes.
- A training programme on 'Transfer of Technology for Production of Export Quality Grapes' was organized at the Centre for the employees of M/s Rallis India Ltd. during 8-9th November 2012. Dr. S. D. Ramteke and Dr. D. S. Yadav coordinated the training programme.

- Dr. A. K. Upadhyay and Dr. A. K. Sharma were resource persons for one day "Training cum Orientation Program on Wine Net" held on 22nd January 2013 at Lalbagh, Bangalore. The role of NRC Grapes in regulation of wine, grape juice and grape must to the European Union and other countries was presented.

Training Acquired

- Mr. S. M. Sahare attended the "Training Course on Establishment Rules (ER)" organized by ISTM, New Delhi during 7-11th January 2013.
- Dr. S. D. Ramteke, Principal Scientist (Plant Physiology) attended the workshop on 'Stress management - medical angle' organized by NAARM, Hyderabad during 12-14th February 2013.
- Mr. Uttam N. Borse, and Mr. B. B. Khade attended ICAR sponsored training programme on 'Nursery Management' organized at Central Arid Zone Research Institute, Jodhpur during 20-22nd February 2013.

Publications

Research Papers

1. Kumar et al. 2012. First Report of Grapevine leafroll-associated virus 1 Infecting Grapevines in India. *Plant Disease*, **96**: 1,828.
2. Narkar et al. 2012. Paradigm shift in the resistance of grape isolates of *Colletotric humgloeosporioides* to carbendazim and their bio-control by *Trichoderma harzianum*. *Indian Phytopathology*, **65**: 373-377.
3. Ramteke et al. 2012. Polypropylene based non-woven fabric use in modern agriculture/horticulture. *The Economic Times Polymers*, Oct. - Nov., 2012: 13-18.
4. Satisha et al. 2013. Biochemically induced variations during some phenological stages in Thompson Seedless grapes grafted on different rootstocks. *S. Afr. J. Enol. Vitic.*, 33.
5. Sharma et al. 2012. Changes in phytochemicals during fermentation of wine grapes. *IJFS*, **2** (1): 19-25.

5. Somkuwar et al. 2012. Status of phenolic and amino acid in leaf of Thompson Seedless grapes grafted on different rootstocks under Indian condition. *GJSFR: Biological Sciences*, **12** (7): 27-36.
7. Yadav et al. 2012. Bio-efficacy of cyantraniliprole, a new molecule against *Scelodontastrigicollis*Motschulsky and *Spodopteralitura* Fabricius in grapes. *Pest Management in Hortic. Ecosystems*. **18**(2): 128-134.

Technical bulletin

1. Adsule et al. 2013. Good Agricultural practices for production of quality table grapes. NRC for Grapes, Pune. Pp 1-57.
2. Ramteke et al. 2012. Physiological disorder in grapevine and its managements. NRC for Grapes, Pune.
3. Ramteke S. D. 2012. Manual of Agmark Standards for table grapes. NRC for Grapes, Pune.

Workshops organized

Indo-French workshop

Indo-French workshop on "Suitability of French wine grape varieties and rootstocks under Indian conditions" was organized in collaboration with DRAFF-FRANCEAGRIMER (National Board for Agriculture and Fisheries) on 7th November 2012 to review the progress of the ongoing collaborative trial on evaluation of wine grape varieties and rootstocks under Indian conditions. Three delegates from France, representatives from Indian Grape Processing Board and wineries, all the scientists of the

Centre also attended the workshop.

The workshop was coordinated by Dr. J. Satisha, Dr. R. G. Somkuwar and Dr. A. K. Sharma.

CeRA Workshop

Sensitization Workshop on Consortium for e Resources in Agriculture (CeRA), a subproject of NAIP, was organized at this Centre on 20th December 2012. This workshop was coordinated by Dr. J. Sharma, Dr. J. Satisha and Dr. A. K. Sharma.

Meetings held

The ICAR hub meeting

The ICAR hub meeting was convened on 4th January 2013 at NRC Grapes, Pune under the Chairmanship of Dr. T. A. More, Vice Chancellor, MPKV, Rahuri. Shri Umakant Dangat, IAS, Commissioner of Agriculture, Government of Maharashtra presided over the meeting.

Quinquennial Review Team Meeting

Third and fourth meetings of the third QRT of NRC for Grapes, Pune were held during 14-15th December 2012 and 15-17th February 2013 at NRC for Grapes, Pune and Nasik respectively under the Chairmanship of Dr. G. L. Kaul, former VC of Assam Agricultural University.

Research Advisory Committee Meeting

Fifteenth meeting of RAC was held during 8-9th March 2013 and progress of research and action taken on previous RAC meeting were deliberated.

PME Cell Meeting

The second PME Cell meeting was organized on 23rd January 2013 under the chairmanship of Dr. P. G. Adsule. The meeting was coordinated by Dr. J. Satisha, Member Secretary, PME Cell.

Institute Research Committee Meeting

The 17th Midterm IRC was convened on 30-31st January 2013 under the chairmanship of Dr. P. G. Adsule, Director. Progress report of the ongoing research project was presented by all the principal investigators. Dr. J. Satisha, Member Secretary, IRC coordinated the meeting.

IMC Meeting

Institute Management Committee meeting was held on 15th December, 2012.

Celebrations

Institute Day

Institute Foundation Day was celebrated by organizing two lectures viz. 'Insect-plant interactions: Recent insights from chemical ecology' by Dr. Avalokiteswar Sen, Principal Scientist, NCL, Pune and 'Mechanisation in vineyards' by Dr. Venkat M. Mayande, former Vice Chancellor, PDKV, Akola on 24th January 2013.

गणतंत्र दिवस

हर वर्ष की तरह इस वर्ष भी संस्थान में 26 जनवरी 2013

को देश का गणतंत्र दिवस उल्लास पूर्वक मनाया गया। निदेशक, डॉ. पां. गु. अडसुले ने ध्वजारोहण किया और सभी कर्मचारियों ने राष्ट्रध्वज को सलामी दी।

हिंदी कार्यशाला

इस केंद्र में 01 अक्टूबर 2012 और 06 फरवरी 2013 को राजभाषा नोटिंग एवं ड्राफ्टिंग विषय पर कार्यशाला का आयोजन किया गया।

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