



GRAPE-NEWS

A Publication of National Research Centre for Grapes, Pune



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Director's Desk



Quality plant material plays an important role in obtaining optimum economic yield with marketable quality produce under various biotic and abiotic stresses. Particularly, this is an important aspect in horticultural crops having long productivity life. In case of grape, few quality standards in case of rootstock and scion plant material have been deliberated at national level and documented for the benefit of grape nurseries and grape growers. Grape nursery block at the Institute has been now laid out with all infrastructure to grow mother plants (Nucleus) of both rootstock and scion varieties, and further to produce basic and certified plant material for distribution. However, the Institute is mainly concentrating on production of basic material for distribution among State Agriculture Universities and State nurseries who would ultimately distribute to various nurseries in their region to produce certified grape plant material. Keeping in view, the importance of quality plant material, State Govt. and state Agricultural Universities have to come forward to undertake this activity to supply quality grape plant material in the country. There is also need to develop a protocol by the State Governments and State Agricultural Universities for the production of quality plant material in case of grapes in association with ICAR institutes having nucleus and basic plant material.

Salient points for the production of quality grape plant material are given below and the Institute is setting up all these facilities:

- i. There should be separate block for selected mother plants of both rootstock and scion grape varieties having known long productive years, potential for yield and quality produce. The plants should be from true-to-type progeny and always healthy and free from diseases, insect pests infestation and physiological disorders.
- ii. The selected rootstock should be less vigorous, compatible with known commercial scion variety, resistant to phylloxera and nematodes with good root system and propagate easily.
- iii. There should be separate block for the production of basic plant material in case of both rootstocks and scion varieties.
- iv. Bud sticks of appropriate thickness and maturity have to be selected for grafting in case of both rootstock and scion varieties and initially grown under controlled and standardized set conditions for this purpose.
- v. Nurseries should have separate block for both the base material received from recognized research organizations and certified plant material for distribution.
- vi. Prepared and packaged grape grafts should be always stored in cold room at 3 - 4°C temperature and more than 90 per cent humidity.


(P.G. ADSULE)

Research Activities

- Twenty pre-grafted accessions of wine grape varieties on different rootstocks from France have been planted in the varietal evaluation block for their evaluation. Also 2 rootstock accessions 110 R clone 180 and SO4 clone 762 are planted in the germplasm block.
- Released ladybird beetles @ 2000 larvae / acre in Tas-A-Ganesh variety of grape at Maharashtra State Grape Growers' Association's farm at Manjri during August - September 2008.
- At NRC Grapes' farm release of beetles, foliar spray of *Verticillium lecanii*, soil application of Imidacloprid for the management of mealybug was tried during July-August 2008.
- Fourteen fungicides recommended by NRC for Grapes were tested against ladybird beetles for their safety.
- Toothed grain beetle *Oryzaephilus suranamensis* was recorded on the stored raisins.

Transfer of Technology

Participation in Grape Growers' Seminars

- Dr. P.G. Adsule participated in the seminar organized by Maharashtra State Grape Growers' Association, Sangli on 21st April 2008 and shared the experiences on monitoring of pesticide residues in exportable grapes of Sangli region during grape season of 2008 with grape growers for appropriate care and management for the next grape growing season.
- Dr. S.D. Sawant, Dr. R.G. Somkuwar, Dr. J. Sharma and Dr. N.S. Kulkarni delivered lectures in their respective fields in seminars organized by Maharashtra State Grape Growers' Association on 21st April, 9th May, 11th May and 13th May 2008 at Sangli, Solapur, Nasik and Sirgonda respectively. Approximately 7000 grape growers benefited.

Field Visits

- Dr. R.G. Somkuwar visited the grape vineyards of nearby areas of Tikota and Bijjargi on 5th June 2008. He observed that due to high temperature and light soil, the growth reduces in both the seasons. Hence, the growers were advised that the spacing needs to be maintained as 9' x 5' for future planting. The cultural practices like shoot thinning, shoot tipping and training to vines did not followed by the grape grower properly. The lecture on "Production of exportable quality grapes" was delivered to the grape growers. Approximately, 100 grape growers attended the seminar.
- On 6th June 2008 vineyards severely affected by pre-monsoon wind, hailstorm and rains in Narayangaon and Junnar area were visited by Dr. S.D. Sawant, Dr. R.G. Somkuwar, Dr. J. Sharma and Dr. N.S. Kulkarni. The following observations were noted.

- A rainfall was so severe that there was a rainfall of 130 mm was received within 20 minutes. Due to the heavy rainfall followed by hailstorm, all leaves on a shoot were turned completely to the extent of heavy damage and complete cane defoliation.
- All the young and partially matured canes damaged. Bark was damaged at number of spots on each cane.



- Many canes and buds were directly damaged and may not sprout normally. Most of the vineyards were at the stage of around 50-60 days after foundation pruning. Due to sudden shock of hailstorm injury the process of bud differentiation may not be completed. The grape growers were advised to take care of their vineyards under such situation.
- Dr. N.S. Kulkarni visited Stem borer affected vineyards at Sangli on 19th August 2008 and had discussion with farmers regarding its management.
- Dr. P.G. Adsule, Director visited vineyards and wine units in MIDC area of Palus and Sangli on 27th September 2008 and collected the wine samples for analysis.

Honours / Recognitions / Awards

- University of Pune has recognized National Research Centre for Grapes as a Ph.D. research centre in the subjects of i) Biotechnology, ii) Bioinformatics, iii) Botany, iv) Microbiology, v) Chemistry, vi) Environmental

Science, vii) Zoology and viii) Biochemistry for the period of five years from 2007-08 to 2011-12 vide their letter No. CA/4933 dated 18th December 2007.

Participation in Scientific Seminars / Symposia / Workshops / Meetings

Drs. P. G. Adsule, Director, G.S. Karibasappa, R. G. Somkuwar and J. Satisha participated in the Research Review Committee meeting of Horticultural Crops of the MPKV, Rahuri on 3-4th April 2008 and presented

information pertaining to grape varieties / rootstocks to be released / recommended for commercial cultivation. They visited nursery area of the University and few vineyards in the region.

Dr. N. S. Kulkarni attended international workshop on 'Integrated Pest Management' organized by FICCI at Hyderabad during 26-30th May 2008.

Dr. P. G. Adsule, Director and Dr. G.S. Karibasappa participated in the meeting of the Grape Growers' Federation of India convened by the Karnataka Grape Growers' Association at Kudalsangam, Bijapur on 13th June 2008. They also visited one of the winery near the Agriculture College to know the problems being faced in wine grape cultivation and sale of wine in the market.

Drs. P. G. Adsule, Director and J. Satisha had two separate meetings with the Vice Chancellor, faculty at S.D. Agricultural University, Gujarat and two growers and with the Principal Secretary, Deptt. of Agr. , Govt. of Gujrat about the problems faced by the grape growers in Gujarat. They visited vineyard farm in Dantiwada and Himmatpur districts on 20th and 21st June 2008.

Dr. A. K. Sharma participated in an Interactive meeting on 'Post-harvest technology of horticultural crops' at Indian Institute of Horticultural Research, Bangalore on 23rd - 24th August 2008. He gave a presentation on 'Post-harvest technology and value addition in grapes'.

Dr. K. Banerjee participated in the European Pesticide Residue Workshop (EPRW 2008) held during 31st May - 8th June 2008 at Berlin, Germany. He also visited Institute of Environmental Research (INFU), University of Dortmund, Germany.

Dr. K. Banerjee and Dr. S.D. Ramteke participated in the 122nd AOAC International Meeting and Exposition in Dallas, Texas, USA held during 21st - 27th September 2008. They also visited the GC-MS application laboratory of Thermo Fisher Scientific in Austin, Texas, USA.

Human Resource Development

Study Visit to Italy

Dr. P.G. Adsule, Director visited Udine (Italy) from 26th July to 2nd August 2008 to develop some topics of common interest in the field of research in the sector of wine grape growing and wine making.

University of Udine has the best collection of different species of grape including hybrids, new clones and therefore there is need to obtain this information from University of Udine about germplasm stock and obtain the

material which is absent in our germplasm at NRC Grapes.

Deputation Abroad for PDF

Dr. J. Satisha, Sr. Scientist (Horticulture) was deputed for availing Post Doctoral position in the Institute of Continental Climate Viticulture and Enology (ICCVE), College of Agriculture, Food and Natural Resources, Division of Food Systems and Bioengineering, University of Missouri, Columbia, USA for a period of one year from 09.08.2008 to 08.08.2009 (extendible till 08.08.2010).

Publications

Research Papers

Banerjee Kaushik, Patil Sangram H., Dasgupta Soma, Oulkar Dasharath P., and Adsule Pandurang G. 2008. Optimization of separation and detection conditions for the multiresidue analysis of pesticides in grapes by comprehensive two-dimensional gas chromatography - time of flight mass spectrometry. *Journal of Chromatography A* 1190: 350-357.

Banerjee Kaushik, Dasgupta Soma, Oulkar Dasharath P., Patil Sangram H., and Adsule P.G. 2008. Degradation kinetics of forchlorfenuron in typical grapevine soils of India and its influence on specific soil enzyme activities. *Journal of Environmental Science and Health, Part B* 43: 1-9.

Papers presented

Banerjee Kaushik, Oulkar Dasharath P., Patil Sangram H., Savant R, Patil Shubhangi B, and Adsule Pandurang G. (2008). Evaluation of matrix influence in ethyl acetate-based multiresidue analysis of pesticides in fruits and vegetables by liquid and gas chromatography coupled with mass spectrometry. Presented in 7th European Pesticide Residue Workshop, 1-5 June 2008, Berlin, Germany.

Four papers on Residue Analysis in Grapes were presented in 122nd AOAC Annual Meeting and Exposition in Dallas, Texas, USA , 21-24 September 2008.

Meeting Held

- Fourth mealy bug meeting was organized at NRC for Grapes, Pune on 8th July 2008.
- IRGS meeting was conducted at the Centre on 7th August 2008 to discuss new contract research proposals.
- A meeting on stem borer was held on 20th August 2008 at NRC for Grapes, Pune and finalized the AICRP trials.

Celebrations



Vanmahotsav

Vanmahotsav was celebrated at the Centre by planting 1500 saplings of various tree species with the help of Angels High School, Loni Kalbhor and Social Forestry Department (Govt. of Maharashtra) on 31st July 2008.

हिन्दी पखवाड़ा



केन्द्र में 16 से 30 सितम्बर तक हिन्दी पखवाड़ा मनाया गया। कार्यक्रम का शुभारम्भ दि. 16 सितम्बर को हिन्दी में अधिकाधिक काम करने की शपथ के साथ हुआ। इस दौरान हिन्दी निबंध, कविता पाठ, कम्प्यूटर पर हिन्दी टंकण, वाद विवाद, प्रश्नोत्तरी, सुलेख व पत्र लेखन आदि प्रतियोगिताओं का आयोजन किया गया जिनमें सभी अधिकारियों और कर्मचारियों ने उत्साह पूर्वक भाग लिया। कार्यक्रम का समापन 30 सितम्बर को हुआ। इस अवसर पर श्रीमती मालती शर्मा, (वरिष्ठ हिन्दी लेखिका) मुख्य अतिथि थीं।

Visitors

- Shri B.A. Coutinho, Additional Secretary, DARE & Financial Advisor, ICAR visited NRC Grapes on 11th April 2008 and reviewed the progress of Plan and Non-Plan expenditure and other related matters.

Technical folders and Bulletins

1. Production and use of Australian ladybird beetle. 2008. Mani M, and Kulkarni N.S. Extension Folder No.19.
2. Management of stem borer on grapes. 2008. Mani M, and Kulkarni N.S. Extension Folder No.20.
3. Management of stem borer on grapes (in Marathi). 2008. Mani M, and Kulkarni N.S. Extension Folder No.21.

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