



Welcome to New Director General



NRCOG congratulates and heart fully welcomes new Secretary, DARE and Director General, ICAR Dr. Mangala Rai.



From the Director's desk

"Export Of Onion And Garlic - Challenges Ahead"

The ban on quantitative restrictions for export of onion has been lifted by the central government since March 2003. Quantitative restrictions unnecessarily imposed since 1997 during onion crisis, has derailed the tradition of systematically canalized export of onion. This has resulted in reducing credibility of Indian exporters in international markets. Lot of hue and cry made at various forums, compelled the authorities in government for taking favourable decision. The news itself is consoling to the farmers but they should not be self complacent that after lifting ban, the rates would be stable and remunerative. The responsibilities towards trust-worthiness, quality production of export oriented onion at competitive rates, dispatching material in attractive packing in scheduled time has increased with lifting of ban. Under very good situation the export has not gone beyond 6 to 6.5 lakh tons. In fact there is a potential for export of red onion to the tune of 10-12 lakh tons. India can be at competitive advantage provided we concentrate on augmented production exclusively for export, uniform grading and attractive packing, quicker shipment in ventilated/refrigerated containers, keeping pesticide residue under tolerable limit, maintain international commitment about

quantity and schedule of supply etc. For facing these challenges, systematic and collaborative efforts with farmers, researchers, traders, policy makers, and export promotion agencies will be of immense importance.

Present practice of assorting, grading, packing and exporting from available material in the local market would not help in future. We will have to assess the requirements of importing countries in terms of quality, quantity and its time frame supply schedule. This information should be made available through NAFED and APEDA. By identifying export production zones, contract production through members of onion growers associations would be more effective and meaningful. Grading, packing, customs sealing at production centre itself would reduce handling, and save on time. Development of infra-structural facilities like good road connectivity, ventilated/refrigerated containers in sufficient number, quick cargo clearing should be the priority items in setting up export zones.

Onion export hitherto is restricted to red/light red types to Asiatic and Middle East countries. Export of yellow onion to European markets has remained so far a debated issue only. Intermediate long day yellow onion varieties planted in September-October have shown very high productivity (60-70 tons/ha) at

NRCOG farm. Contract production and sending trial consignment to European market can make a good beginning in this regard.

Garlic has been a traditional commodity for export in the form of fresh garlic, garlic paste and dehydrated flakes/powder. However, due to low productivity, domestic supply influences the export. Big clove garlic with limited number of

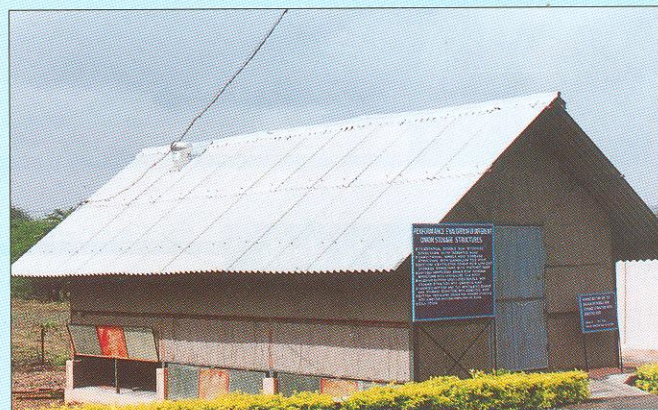
cloves/bulb is in demand for export. Garlic varieties grown in plains are smaller in diameter with more (>25) number of cloves per bulb. Production of bigger bulbs with limited number of cloves per bulb is quite remunerative in Himachal Pradesh, Uttaranchal and Jammu & Kashmir. A systematic trade link for production, curing, packing, and procurement and export need to be developed.

Onion storage structures in Maharashtra

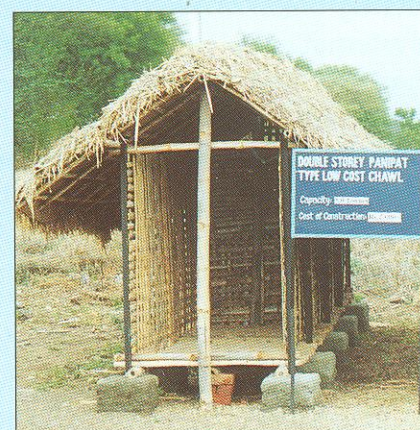
An in depth survey was undertaken to study the onion storage structures in Maharashtra. The study revealed that temporary, semi permanent and permanent storage structures are commonly used for the storage of onion. Nearly 44.6 % structures were of temporary type, 30.2% were of permanent and remaining 25.2 % were of semi permanent. The temporary structures were made of wooden bantam /logs with thatched roof (24.19%) and thatched roof with polyethylene covers (75.8%). The sidewalls of temporary structures were made with pigeon pea stalks (30.6%) or wheat straw (64.51%). The floor of these structures was *kuchha* but was raised in many cases (51.61%). Semi permanent structures were made of wooden logs or galvanized iron pipes/angles. Most of the semi permanent structures were built on raised platform that was either *kuchha* (50%) or filled with coarse sand (41.6%). The side walls of these structures were made of pigeon pea stalks (57.14%), wooden bantam (25.71%) and bamboo (5.71%). The roof the majority of the semi permanent structures were made with Mangalore tiles (77.14%) while 11.42% were thatched.

Performance of onion storage structures

Traditional and improved types of onion storage structures were erected during last year at this center. These structures are equipped with either bottom ventilation or without ventilation. These structures were constructed with various locally available material with asbestos and thatched roofing and are easily affordable by all farming communities and traders. These storage structures are being used



for evaluation of post harvest performance of late kharif (*rangda*) and rabi onion bulbs. The preliminary results showed that bottom and top ventilated structure with side walls made of bamboo and plastered with mud showed lower physiological weight losses as compared to others while the rotting losses were minimum



in modified bottom ventilated storage structure. The cost of storage of onion works out to be Rs.0.30/kg/year. For the benefit of small and marginal farmers a low cost storage structure of 5-10 ton capacity is also developed. It can be made from locally available material like wooden rafters or bamboo for bottom and sidewalls and sugarcane trash for roof. The bottom and side ventilation helps in reducing storage losses. Per kg cost of storage of onion is Rs.0.20/kg/year.



Leaf miner- a little known pest of onion

Leaf miner attack was noticed on onion bulb crop during *kharif* season. Earlier in India in 1984-85, the Agromyzid, *Chromatomyia horticola* caused considerable damage in Delhi, Rajasthan and Haryana. Infestation by the pest ranged from 10 to 55% during February and March. However different species *viz.*, *Liriomyza trifolii* (Burgess), *L. cepae* (Her.) are known to infest onion crop in Mauritius, Europe, Taiwan and elsewhere. This Agromyzid causes damage to onion and other species of Alliums. The eggs are inserted into the plants and the larvae mine in the leaves, causing white streaks to appear.



Life cycle comprises of three larval instars. The full-fed larvae pupate in the soil during the winter months.

Human Resource Development

Training

Dr. A.A. Qureshi attended winter school on 'System approach to plant nutrition for

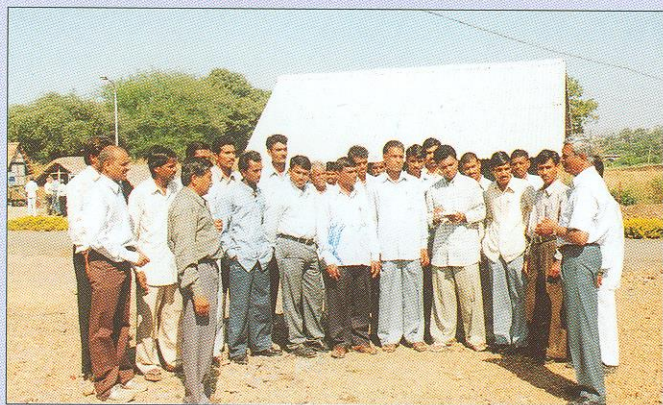
sustainable crop production' organized by DOR, Hyderabad from 18 September to 8 October 2002.

Transfer of Technology

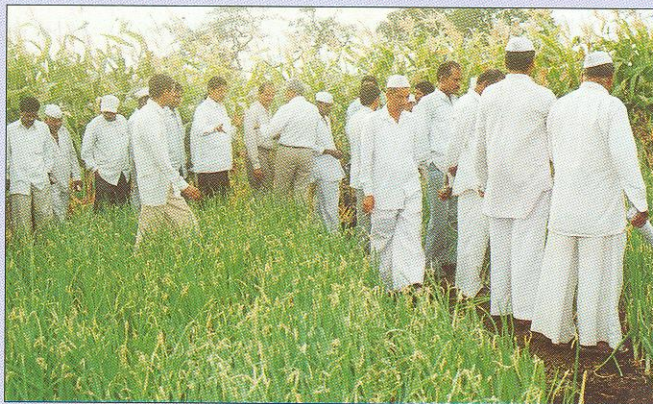
Farmers training programme

NRCOG organized three-day farmers training programme in Hindi sponsored by Department of Horticulture, Government of Madhya Pradesh from 26.12.2002 to

28.12.2002. Around 50 farmers from Madhya Pradesh were trained on improved varieties, production, protection, post harvest handling and marketing of onion and garlic through audio-visuals and field visits.



Farmers interaction with the Scientists during field visit

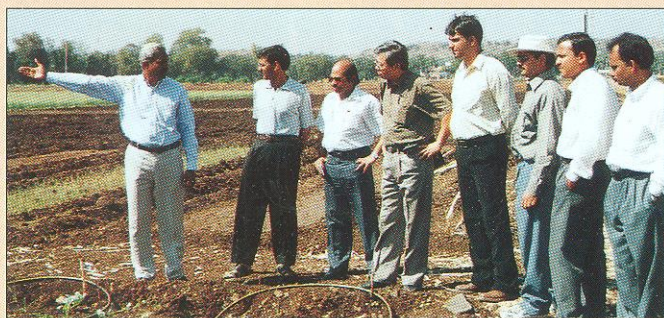


Institutional Activities

VI IMC meeting was held on 7th October 2002 under the chairman ship of Dr. K.E.Lawande, Director. The committee

discussed the agenda items and approved accordingly.

Distinguished Guests



Director, NRCOG, explaining the research activities to Director General AVRDC, Taiwan

Dr. Tsou Samson C.S., Director-General, and Dr. S. Shanmugasundaram, AVRDC, Taiwan visited on 07.11.2002

Lt. Gen. R.S. Nagar, Director General of Artillery, Army Headquarters, New Delhi visited on 15.11.2002

हिन्दी सप्ताह समारोह

राष्ट्रीय प्याज एवं लहसुन अनुसंधान केन्द्र, राजगुरुनगर पर दिनांक ०७/९/२००२ से १४/९/२००२ तक हिन्दी सप्ताह मनाया गया। इस उपलक्ष्य पर निबन्ध, वाद-विवाद, कविता पाठ आदि प्रतियोगिताओं का आयोजन किया गया। निबन्ध प्रतियोगिता में श्री. आर. एस. कुलकर्णी ने प्रथम, श्री. एस. पी. कन्डवाल ने द्वितीय तथा श्री. एन. एच. शेख ने सांत्वना पुरस्कार प्राप्त किया।

वाद-विवाद प्रतियोगिता में प्रथम स्थान डॉ. अनिल खेर,

द्वितीय स्थान श्री. एच. एम. जाधव तथा सांत्वना पुरस्कार श्री. पी. एस. तँवर ने प्राप्त किये। कविता पाठ में डॉ. विजय महाजन, श्री. पी. एस. तँवर तथा डा. अनिल खेर ने क्रमशः प्रथम, द्वितीय तथा सांत्वना पुरस्कार प्राप्त किये। हिन्दी सप्ताह के कार्यक्रमों का समापन दिनांक १४/९/०२ को हुआ। जिसमें प्रकाश भास्करराव फडणवीस, शाखा प्रबंधक, भारतीय स्टेट बैंक, राजगुरुनगर मुख्य अतिथी थे। इस अवसर पर मुख्य अतिथी एवं अन्य गणमान्यजनों ने हिन्दी सप्ताह के महत्व तथा प्रयोग पर प्रकाश डाला।

Training to the Officers

NRCOG offers training to the officers of state agriculture, horticulture departments, extension personnel and Onion & Garlic growers. The training comprises of the following module.

1. Onion and Garlic production technology.
2. Integrated nutrient and water management.
3. Integrated Pest and Disease management.
4. Post harvest handling and storage.

For further details, Contact -

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