



ICAR
National Research Centre on Pomegranate



**INNOVATION,
CAPACITY BUILDING,
AND SUCCESS STORIES
IN POMEGRANATE**



**NH-65, Solapur Pune Highway, Kegaon,
Solapur, Maharashtra
413 255**

Indian Council on Agricultural Research
National Research Centre on Pomegranate

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Website : <http://www.nrpomegranate.org>



Director,
ICAR-National Research Centre on Pomegranate
Solapur, Maharashtra

MESSAGE

On the occasion of foundation day celebrations of National Research Centre on Pomegranate it is my pleasure to organize this interactive programme which provides a platform for interaction between successful pomegranate growers and other stakeholders of pomegranate industry including farmers. The release of this publication on the auspicious occasion our foundation day ceremony truly signifies the dedication and hard work of not only progressive stalwarts of pomegranate industry but also the whole pomegranate farming community of India. This document would be very important for scientists, farmers, extension persons, administrators and other stakeholders who are associated with pomegranate cultivation in India.

Compilation of these success stories is certainly a step forward in popularization of pomegranate cultivation as these stories will act as guiding force for other pomegranate growers to achieve similar milestones.

I wish good luck and thanks to the scientists and farmers who helped in the documentation of success stories in the form of this compendium.

A handwritten signature in green ink, appearing to read 'R. K. Pal'.

(R. K. Pal)

PREFACE

Pomegranate (*Punica granatum* L.) can be considered as one of the most ideal crops for dry Deccan Plateau region of India. Its cultivation has become highly remunerative agriculture business in India.

The versatile adaptability to a wide range of climatic conditions and edaphic conditions, hardy nature, low water requirement, good response to high tech-horticultural practices, high yield, good returns on investment in dry regions, excellent therapeutic values, huge demand for table and processed products and great export potential has made pomegranate a popular fruit of semi-arid, tropical, subtropical regions in recent times.

India is the global leader in pomegranate production and acreage. As per 3rd advance estimate of Indian Horticulture Database, 2015-16, an area 1.93 lakh ha. is under pomegranate cultivation with an estimated production of 21.98 lakh tonnes. In India, pomegranate is extensively grown in Maharashtra, Karnataka, Gujarat, Andhra Pradesh, and is picking up fast in, Himachal Pradesh, Rajasthan and Madhya Pradesh with small areas are under cultivation in Tamil Nadu, Mizoram, Odissa, Nagaland, Lakshadweep, Jharkhand and Jammu and Kashmir.

Great part of the credit to this enhanced production and productivity goes to the pomegranate farmers of this country, who are working tirelessly in tandem with pomegranate researchers, technologists, policy makers and administrators. In order to recognize the hard work of the most respected farming community engaged in pomegranate cultivation and to widely publicize and popularize the success stories and innovations of experienced pomegranate growers, this e-publication has been brought out by the ICAR-NRCP, Solapur.

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Export oriented pomegranate production

Personal Profile



Name : Shri Shivaji (Vishnupant) Tanaji Rahatal

Age : 34 Years

Education : B.A.

Address : At Post: JawaleKadlag, Taluka: Sangamner,
Dist: Ahmadnagar (Maharashtra)

Contact No.: 9850031522

Farm Details

Total Cultivated Area : 75 acres

Total Area under Pomegranate : 40 acres (Bearing :22 acres, New: 18 acres)

Production of Pomegranate : 260 tonnes from 22 acres

Cost of Cultivation/acre /year : ` 70,000/-

Description of Technology

- ❖ Primarily export oriented pomegranate production to fetch premium price from quality pomegranate production.
- ❖ Predominant use of organic fertilizers and bio pesticides for production of pesticide residue free pomegranates.
- ❖ Emphasis on farm mechanization through tractor operated intercultural operations and spraying and fertilizer application through fertigation unit.
- ❖ Excellent canopy management through proper training and pruning operations.
- ❖ Proper water management with lift irrigation from Jayakwadi project and farm pond with storage Capacity of 1.30 Cr. Litres.

Achievement

- Productivity of 12 tonnes/acre and income of ` 3.75 Lakh/acre
- Total income from 22 acres orchard is` 2.08 Cr. which includes` 1.30 Cr. from export of 130 tonnes of pomegranate @` 80-110 per kg. and ` 78 Lakh from sale of 130 tonnes of pomegranate at local market (India)



Organic Manure for Sustainable Pomegranate Production

Personal Profile



Name : Shri. Bramhadev Kisan Dudhal
Age : 37 Years
Education : M.A., B.Ed.
Address : A/P: Shelgaon, Taluka: Indapur, Dist: Pune
 (Maharashtra)
Contact No.: 9975681111

Farm Details

- ❖ **Total Cultivated Area** : 25 acres
- ❖ **Total Area under Pomegranate** : 12 acres (600 plants of Ganesh and 3000 plants of Bhagwa)
- ❖ **Production of Pomegranate** : 169 tonnes of bhagwa from 10 acres and 40 tonnes Ganesh from 2 acres
- ❖ **Income from Pomegranate per year** : Approximately ` 1.25 Crore every year since 4th *bahar*
- ❖ **Cost of Cultivation/acre /year** : ` 2.5 Lakh/-

Description of Technology

Use of organic manure upto 16 tonnes/acre/ annum for two years and 27 tonnes/acre/ annum third year onwards, which not only enhanced the nutritional status of soil but also improved its physical properties leading to optimum aeration in root zone. As the result of which there is sustained high yields.

Achievement

- Productivity of 16.9 tonnes/acre for *Bhagwa* and 20 tonnes/acre for *Ganesh* in 7th *bahar*
- Income of ` 65 Lakh from the harvest of 3rd *bahar* and income of around 1.25 crore every year since 4th *bahar*



Integrated management practices and phyto-sanitation measures for healthy and disease free orchard

Personal Profile



Name : Shri Papi Reddy
Age : 65 Years
Education : 11th Class
Address : Mandal Beluguppa, Dist. Anantapur.
 (Andhra Pradesh)
Contact No.: 9441144252

Farm Details

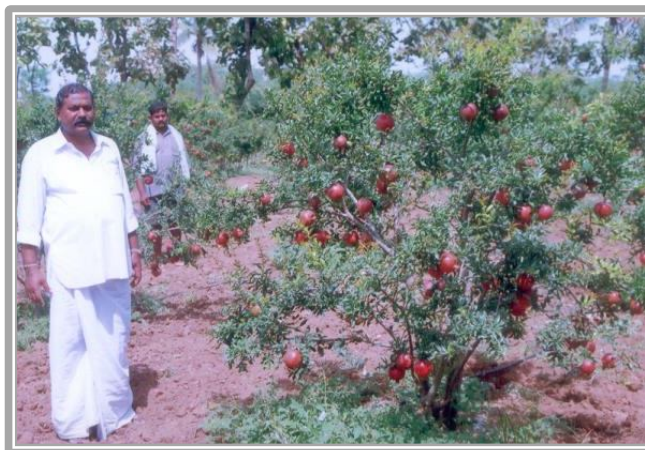
- ❖ **Total Cultivated Area** : 42 acres
- ❖ **Total Area under Pomegranate** : 20 acres bearing orchard and 22 acres pre bearing (new) orchard
- ❖ **Production of Pomegranate** : 150 tonnes from 20 acres
- ❖ **Cost of Cultivation/acre /year** : ` 30,000/-

Description of Technology

- Adoption of good management practices including strict phyto-sanitation measures such as pruning with disinfected secateurs etc.
- Casurina plantation as a fencing and wind break at borders of pomegranate orchard
- Mechanized spraying, intercultural operations, etc.

Achievement

- Able to keep healthy plants and best quality fruits during epidemic conditions of disease in district
- Productivity of 7.5tonnes/acre and income of ` 3.75 Lakh/acre
- Total income of ` 75 Lakh from 20 acres orchard



Good management practices and phyto-sanitation measures for healthy and disease free orchard

Personal Profile



Name : Smt. P. Vijaya Lakshmi
Age : 61 Years
Education : M.A.
Address : Village:Kondampalli, Mandal: Penukonda,
 Dist.: Anantapur (Andhra Pradesh)
Contact No.: 9440888879

Farm Details

- ❖ **Total Cultivated Area** : 32 acres
- ❖ **Total Area under Pomegranate** : 22 acres bearing orchard and 12 acres pre bearing (new) orchard
- ❖ **Production of Pomegranate** : 120 tonnes from 22 acres
- ❖ **Cost of Cultivation/acre /year** : ` 45,000/-

Description of Technology

- Adoption of good management practices including strict phyto-sanitation measures such as pruning with disinfected secateurs etc.
- Adopted heavy pruning with disinfected secateurs in severely bacterial blight infected orchard.

Achievement

- Productivity of 5.45tonnes/acre and income of ` 3.75 Lakh/acre
- Total income of ` 60 Lakh from 22 acres orchard



Intercropping in pomegranate a success

Personal Profile



Name : Shri. Subhash Borate
Age : 44 Yrs
Education : 10th
Address : At: Bharanewadi Post: Anthurne, Taluka:
 Indapur, Dist: Pune (Maharashtra)
Contact No.: 9890938270

Farm Details

- ❖ **Total Cultivated Area** : 6.5 acres
- ❖ **Total Area under Pomegranate** : 4.5 acres New Plantation (Bhagwa) and 2 acres (Ganesh)
- ❖ **Income from Pomegranate per year** : ` 3 Lakh/annum (old Ganesh)
- ❖ **Cost of Cultivation/acre /year** : ` 50,000- 60,000 /-

Description of Technology

- Successful cultivation of cv. Ganesh
- New experiment of intercropping with wheat and gram in Pomegranate orchard of 2.5 acres
- Another intercropping experiment of papaya in pomegranate orchard of 2 acres is great success with papaya fruits weighing up to 5-6 kg.

Achievement

- In Pomegranate plantation of Ganesh achieved production of 16 tonnes/acre with cost of cultivation ` 50,000- 60,000 tonnes/ acre.
- Exported pomegranate and achieved maximum fruit size weighing up to 1 kg
- Income from intercropping for onion production of 12 tonnes/acre was ` 1 lakh/acre.
 - Wheat production 6.4 qt./acre was ` 20,000/acre
 - Gram production 4.5 qt./acre was ` 6,000/acre
- Total income from intercropping was ` 1.34 Lakh
- Income from intercropping for groundnut 0.4 ton of (pods)/acre was ` 15,000/acre
 - Cucurbits 2.2 tonnes/acre was ` 39,600/acre
- Papaya yet to be harvested



Indigenous low cost blower for spraying of insecticides and pesticides in pomegranate orchards

Personal Profile



Name : Shri. Anil Chandrakant Pathak
Age : 33 Years
Education : 8thClass
Address : At Post: Bori, Taluka: Indapur, Dist: Pune
(Maharashtra)
Contact No.: 9860497192

Description of Technology

- ❖ Manufacturing the various capacity blowers ranging from 200-1000 lit capacity suitable for mounting on all types of orchard tractors and small trolleys.
- ❖ The coverage of the spray can be managed with different geometrical arrangement of series of nozzles.
- ❖ The uniform spray application and fine droplet size is leads to enhanced spraying efficacy
- ❖ The cost of blowers
 - 200 and 300 lit. capacity is ` 61,000/-
 - 400 and 500 lit. capacity is ` 71,000/-
 - 600-1000 lit. capacity (trolley based) is ` 88,000/-

Achievement

- Sold 1000 sets of blower until now
- This is low cost intervention and replacement for very costly imported blowers supporting the pomegranate production.



Integrated nutrient management approach for higher yield

Personal Profile



Name : Shri. Basavraj Chandram Jambagi
Age : 55 Years
Education :
Address : Village: Hire Rugi, Taluka:Indi, Dist: Bijapur
 (Karnataka)
Contact No.: 8951644108

Farm Details

- ❖ **Total Cultivated Area** : 16 acres
- ❖ **Total Area under Pomegranate** : 10acres
- ❖ **Production of Pomegranate** : 30 tonnes in 2.5 acres
- ❖ **Cost of Cultivation/acre /year:** ` 1 Lakh

Description of Technology

Integrated nutrient management approach with more emphasis on organic fertilizers and optimum use of inorganic fertilizers led good plant health and higher yields in pomegranate.

Achievement

- ❖ **Productivity:** 12 tonnes/acre with an income of ` 6.8 Lakh/acre.



Successful management of bacterial blight

Personal Profile



Name : Shri. Vitthal Annasaheb Karande
Age : 30 Years
Education : B.A.
Address : At: Wadachiwadi, Taluka: Mohol, Dist: Solapur
 (Maharashtra)
Contact No.: 9766405399

Farm Details

- ❖ **Total Cultivated Area** : 9 acres
- ❖ **Total Area under Pomegranate** : 6 acres (*Bhagwa*)
- ❖ **Production of Pomegranate** : 39 tonnes in 6 acres
- ❖ **Cost of Cultivation/acre /year** : ₹ 1.00 Lakh/-

Description of Technology

- Use of integrated nutrient management for improved plant health and immunity.
- Group approach for orchard sanitation.
- The use of 0.5 % Bordeaux mixture spray and Bordeaux paste, along with Bactronol-100 + COC combination, KMS H₃PO₄ found to be effective for management of bacterial blight.

Achievement

- Productivity of 6.6 tonnes/acre with an income of ₹ 34.22 Lakh from 6 acres from the harvest of *Mrig bahar* of 2010.



Integrated nutrient approach for bacterial blight management

Personal Profile



Name : Shri. Samadhan Bhosale
Age : 35 Years
Education : B.A.
Address : At: Papari, Taluka: Mohol, Dist: Solapur
 (Maharashtra)
Contact No. : 9850102076

Farm Details

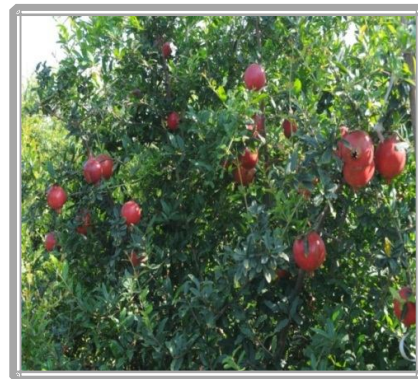
- ❖ **Total Cultivated Area** : 15 acres
- ❖ **Total Area under Pomegranate** : 3.5 acres (*Bhagwa*)
- ❖ **Production of Pomegranate** : 40 tonnes in 3.5 acres 6.9 Lakh/ acre
- ❖ **Cost of Cultivation/acre /year** : ₹ 1.05 Lakh

Description of Technology

- Use of integrated nutrient management comprising of organic, inorganic fertilizers led to good plant health and improved the plant immunity. Thus even being located in hotspot of the bacterial blight and adoption of *Mrig bahar* which is highly prone for the diseases plants were never got infected with bacterial blight. The bordeaux mixture spray and Bordeaux paste along with Blitox and Captaf were used as preventive measure against incidence of bacterial blight disease

Achievement

- Productivity of 11.42 tonnes/acre with an income of ₹ 6.9 Lakh/acre from the harvest of *Mrig bahar* of 2009.



Water Management for production of Pomegranate

Personal Profile



Name : Shri. Bharat Eknath Shinde
Age : 46 Years
Education : B.A.
Address : At Post-Bori, Taluka: Indapur, Dist.: Pune
Contact No. : 7588622922

Farm Details

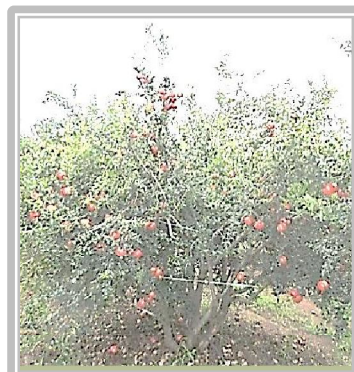
- ❖ **Total Cultivated Area** : 50 acre (30 acres Grape and 16 acres Pomegranate)
- ❖ **Total Area under Pomegranate:** 12 acres tissue cultured & 4 acres *guti* (*Bhagwa*)
- ❖ **Old Pomegranate orchard** : 4 acre (*Bhagwa*)
- ❖ **Production of Pomegranate** : New orchard 1st *Bahar* 36 tonnes in 12 acres of new orchard
- ❖ **Old pomegranate orchard** : 7th *Bahar* 60 tonnes in 4 acres
- ❖ **Cost of Cultivation/acre/year:** ₹ 1.5 lakhs

Description of Technology

- The region is water scarce and particularly during summer period (March-June) the conditions are very critical thus, needs meticulous water management for fulfilling the optimum water requirement of plants.
- The farm pond of 3.5 Corers liters capacity was constructed based on the water requirement of pomegranate and grape for 50 acres.
- Tissue cultured plant growth and quality of fruit are very excellent and no disease infection.

Achievement

- Productivity of 15 T/acre in old orchard with income of ₹ 36 Lakh from 4 acres.
- Productivity of 3 tones /acre for 2nd year tissue cultured plant with income of ₹ 30.6 Lakh from 12 acres.
- Successful water management for higher yield with limited water resources



Pomegranate nursery as successful allied business opportunity with pomegranate production

Personal Profile



Name : Shri. Nandabasappa Sangappa Chowdhari
Age : 59 Years
Education :
Address : A/P- Baloothi, Basavanaga, Taluka-Bagewadi,
 Dist-Bijapur, Karanataka
Contact No. : 9845510624

Farm Details

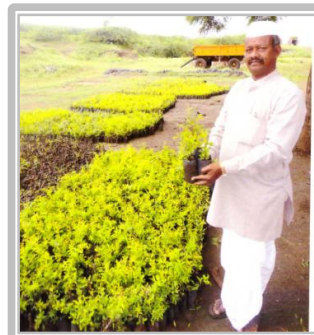
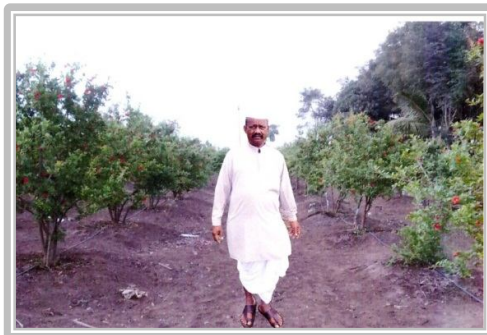
- ❖ **Total Cultivated Area** : 100 acre
- ❖ **Total Area under Pomegranate**: 2.5 acre (Bhagwa)
- ❖ **Production of Pomegranate** : 7 tonnes from 2.5 acres
- ❖ **Production of Gutti** : 30000 no. & cost of production ` 2/*guti*.
- ❖ **Production of sapling** : 80000 no. & cost of production ` 5/sapling.
- ❖ **Cost of Cultivation /year** : ` 70000 /acre

Description of Technology

- practices Organic farming for pomegranate plantation and sapling production

Achievement

- Productivity of 2.8 tonnes/acre
- Total income of 28.90 Lakh including (20 Lakh from sapling, 5.4 Lakh from *gutti*, 3.5 Lakh from fruits)



Cultivation of different pomegranate varieties



Personal Profile

Name : Shri. Devendrappa Shankarappa Balootagi
Age : 64 years
Education : 10th
Address : At Post: Kanakadasa, Circle-Kustagi, Taluka-Basavanaga Bagewadi, Dist-Koppal
 Karnataka
Contact No.: 9448427678

Farm Details

- ❖ **Total Cultivated Area** : 200 acres
- ❖ **Total Area under Pomegranate** : 120 acres
- ❖ **Production of Pomegranate (in fruiting)** : 300 tonnes in 30 acres
- ❖ **Cost of Cultivation /year** : 1.0 Lakh/ acre

Achievement

- Productivity of 10 tonnes/acre
- Income of 7.0 Lakh /acre
- Arakta: 15 acres
- Bhagwa: 60 acres
- Ruby: 5 acres
- Ganesh: 40 acres







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