Indian Institute of Oil Palm Research

ABOUT

Indian Institute of Oil Palm Research in West Godavari district, Andhra Pradesh, India in year 1995 and Oil Palm research under irrigated circumstances is practically a new initiative and the Indian Council of Agricultural Research setup by the National Research Centre for Oil Palm at Pedavegi in West Godavari district of Andhra Pradesh. In 2014 November, the institute was enhanced as Indian Institute of Oil Palm Research (IIOPR) to cater to oil palm research conditions across the country. IIOPR assists as a centre for supervising and coordinating research on all manner of oil palm conservation, improvement, production, etc.

Research Centre Name	Indian Institute of Oil Palm Research
Centre Type	Central
Governed By	Indian Council of Agricultural Research
Location	Andhra Pradesh, India
Topic Cover	Oil palm conservation, Improvement, Production, Protection, Post-harvest technology and Transfer of technology
Application Mode	Online & Offline
Head	Dr. R.K. Mathur
How to Reach	Andhra Pradesh, India
Founded In	1995
Website Link	Click Here

MISSION AND VISION

Main Vision of IIOPR is with land, water and labour reservoirs becoming increasingly scanty, IIOPR main target shall be to execute better Resource Use proficiency. A four-fold enhancing in land productivity, three-fold increase in water capacity, doubling of energy use proficiency and a six fold enhancement in labour productivity are to be focussed at so as to remain competitive in the emerging global situation.

IIOPR mission is

• To make sure technology led establishment of oil palm for food and industrial usefulness and make it available to the everyone at reasonable prices.

• To make sure the accessibility of new hybrids and development technology to the farmers that can provide better desirability and withstand biotic and abiotic stresses.

• To develop technologies that are socially congenial, politically practical and ecologically sustainable and to advance environmental services.

DIFFERENT PUBLICATIONS FROM CENTRE

Some of the funded research work of centre. Some of the titles are listed in below table.

1) Institute Projects

1	Collection, Conservation, Cataloguing and Evaluation of Oil Palm Germplasm.
2	Genetic Enhancement in Oil Palm.
3	Biotechnological Studies in Oil Palm.
4	Production System Management.
5	Physiological & Biochemical Basis for Growth and Yield in Oil Palm.
6	Development of Labour-Saving Tools & Machineries for Oil Palm Cultivation.
7	Integrated Pest Management.
8	Dissemination of Technology & ICT Applications in Oil Palm Sector.

2) Externally Funded Projects

1	Mapping QTLs for important physiological traits, oil yield related traits and construction of linkage maps in oil palm using genome wide microsatellites and SNP markers.
2	National Agricultural Innovation Fund (NAIF)-Intellectual Property Management and Technology Transfer/Commercialization (ITMU).
3	Enhancing profitability of oil palm based cropping system through resource use efficient technologies with farmer-Scientist and Stakeholders Interface.

3) Research Achievements

1	Intensive evaluation of African germplasm resulted in the identification of a few remarkably high yielding accessions that could play a major role in oil palm crop improvement programme in India. Explant samples were collected for tissue culture of these valuable palms.
2	Four dura palms, belonging to Guinea Bissau and Zambia, with drought tolerance have been selected and are being utilized in development of DxD and DxP crosses.
3	Eight promising dura mother palms were selected from commercial plantations of Maharastra and Andhra Pradesh and 11 germplasm were collected from Little Andaman plantations. In total, 19 oil palm germplasm accessions were characterized and conserved.
4	Among DxD crosses, highest oil/bunch ratio was recorded in dura palm no.49 in 240D x 281D cross (24.5%) followed by dura palm no.6(23.9%). Eight palms in 240D x 281D and 14 in 80D x 281D crossed recorded oil to bunch ratio of more than 20%
5	In case of DxP crosses, highest per cent oil/bunch ratio was recorded in tenera hybrid 53D x 57D (25.64 %) closely followed by 124D x 57P (25.4 %) which was significantly higher than Deli x Nigeria (23.37 %) and Deli x Ghana (17.9 %) hybrids.
6	Eight DxD hybrids were produced and supplied to Agricultural Research Station, Pattukottai, Tamil Nadu. Eleven new oil palm hybrids namely DOPR 41 to DOPR 51 were supplied to Agricultural Research Station, Vijayarai, Andhra Pradesh of AICRP on Palms for evaluation.
7	Somatic embryogenesis from spear leaf explants of mature pisifera was observed for the first time in India.

1) Context

Oil palm is one of the highest edible oil yielding perennial crop that develops two distinct oils, i.e., palm oil and palm kernel oil, which have domestic and industrial uses. Palm oil is obtained from the fleshy mesocarp of the fruit, which consists about 45%-55% of oil. The palm kernel oil, produced from the kernel of stony seed, is a possible source of lauric oil. Oil palm is the crop that has a greater benefit in terms of efficiency that is much higher than that of different oil yielding crops.

2) Challenges

Land, water and energy are the crucial resources which are to be supervised in an integrated way for continuous development, since India has only 2% of the global land, 4% of water but 16% of the population of the world. Land usage is very poorly managed and both Government Departments and private people are acquiring land wherever possible and using it for their restricted motives without considering any integrated designing and use of land.

3) New Opportunities

Oil palm crop extends great opportunities to all the shareholders involved in oil palm industry. Oil palm is a high yielding crop when it is compared to other oil yielding crops that are producing around one tonne of oil per hectare. There are various opportunities for the development of oil palm in country which has diversified agro-climatic environments and vast stretches of land with untapped underground water capacity.

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