



**INTERNATIONAL CONFERENCE ON INNOVATIVE APPROACHES
IN CROP IMPROVEMENT FOR SUSTAINABLE AGRICULTURE - 2023**



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ON
INNOVATIVE APPROACHES IN
CROP IMPROVEMENT FOR
SUSTAINABLE AGRICULTURE**

**(IACISA - JSACAT-I-2023)
Feb 23, 2023**

A BOOK OF ABSTRACTS

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JSA COLLEGE OF AGRICULTURE AND TECHNOLOGY,

Ma.Podaiyur, (Ulundurpettai – Trichy NH Main Road), Avatti – 606108,

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Theme I | Assessment of novel organic liquid in groundnut for higher
yield
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02

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Groundnut is important oilseed crop. India is one of the largest producers of Groundnut in the world. Now a day the productivity is reduced due to the nutrient deficiency problem under rainfed condition. On Farm testing (OFT) experiment was conducted at five different farmers' fields of Ethakovil village during Kharif 2022. The experiment was laid out in Randomized Block design and replicated in thrice with the following treatments. T₁ – RDF through chemical fertilizer, T₂- NOVEL Organic Liquid @ 2ml/L for 2 times and T₃- TNAU groundnut rich @ 5.0 kg/ha (for each spray) at 35 DAS (50 per cent flowering) and 45 DAS (Pod developing stage) in 500 litres of water is recommended. The Soil texture of the trail plot is sandy loam with low organic carbon (0.25-0.59 %). The available Nitrogen is (225- 278 kg/ha), available Phosphorus (7.63- 11.56 kg/ha) and available Potassium is (159-175 kg/ha). The trail plot was received 732 mm of rainfall. Each trail plot was conducted 0.25 acre. The following parameters viz., plant height (cm), No. of branches per plant, no. of pods per plant, pod yield and economics were recorded in randomly selected area. Among the different treatments, foliar application of Novel organic liquid @ 2ml/L for 2 times (T₂) along with recommended dose of fertilizers resulted in higher growth parameters viz., plant height (cm), no. of branches per plant, no. of pods per plant and pod yield followed by the other treatments. The highest net return and B:C ratio was recorded in foliar application of Novel organic liquid @ 2ml/L for 2 times (T₂) compare to others. Based on the experimental results, foliar application of Novel organic liquid @ 2ml/L could be considered as better option for achieving higher productivity and profitability of Ground nut under rainfed condition.

Keywords: Ground nut, foliar nutrition, novel organic liquid, yield and B: C ratio

Theme I | **Assessment of different Paddy Varieties for Mullai Periyar
River Basin Areas of **Theni** District**

04 | **Maheshwaran. P^{1*} and Arun Raj. M²**

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Paddy is one of the chief grains of India. Moreover, this country has the largest area under rice cultivation. As it is one of the principal food crops in the Country. The yield gap is wider in Paddy crop under farmer's field as compare to other countries due to non-adoption of location specific improved production technologies. The On Farm testing (OFT) experiment was conducted at five different farmers' fields of mullai periyar river basin area during Kharif 2021. The experiment was laid out in Randomized Block design and replicated in thrice with the following treatments. T₁ - CO 54, T₂- ADT 55 and T₃- Sowbagya (Private variety). The Soil texture of the trail plot is clay loam with low organic carbon (0.27-0.64 %). The available Nitrogen is (241- 294 kg/ha), available Phosphorus (8.41- 12.6 kg/ha) and available Potassium is (164-187 kg/ha). The trail plot was received 981 mm of rainfall. Each trail plot was conducted 0.25 acre. The following parameters viz., plant height (cm), no. of productive tillers/m², panicle length (cm), no. of grains, percentage of pest incidence, yield and economics were recorded in randomly selected area. Among the different Paddy varieties, the higher plant height (cm), number of productive tillers per m², panicle length (25.4 cm), number of grains per panicle (1569.23) and yield (6140 kg) were recorded in CO 54 variety followed by ADT 55. The highest net return and B:C ratio was recorded in CO 54 (2.80) as compare to other varieties. Based on the experiment results, CO 54 Paddy variety could be considered as better option for achieving higher productivity and profitability of Paddy grown area of mullai periyar river basin area in **Theni** District.

Keywords: Paddy, improved Variety, CO 54, yield and B: C ratio.