

## **F-60: EFFICACY OF WEED MANAGEMENT STUDIES IN KODOMILLET**

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An experiment was conducted in Kodomillet during *Khari* 2018-19 at AICRP on Small Millets, UAS, Bangalore. Treatments comprised pre emergent application of Oxadiargyl 80WP at 150& 200g a.i./ha, Bensulfuronmethyl 0.6G+pretilachlor 6.0G at 0.165&0.33kg a.i./ha, Butachlor 50EC 750g a.i./ha, post emergence application (15-20 DAS) of Bispirithac sodium 10SC 10&15g a.i./ha, Ethoxysulfuron 15WG 12&15g a.i./ha, standard practice of two intercultivation& one hand weeding and a weedy check. Application of post emergent weedicide Ethoxysulfuron 15WG 12g a.i./ha indicated higher yield, economics, lower weed density with higher WCE(%).

**Key words:** *Chemical Weed Control, Economics, Kodo Millet, Weed Control Efficiency, Yield*

## **F-61: ZN-BIOFORTIFICATION IN GROUNDNUT SEED THROUGH ZINC SULPHATE AND ZN-EDTA**

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Zn deficiency is a common problem of world population due to consumption of food crops mainly grown on most prevalent Zn deficient soil. The groundnut seed, with about 50 ppm of Zn if grown under well fertilized condition, is a good source of Zn and also response to Zn fertilization in enhancing its Zn further in the seed. Hence inclusion of its consumption can help alleviate Zn malnutrition in India. However, in India about 50 % of the soil is Zn deficient, and mostly the groundnut is grown on poor fertility soils resulting in poor Zn content in seed.

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Thus a field experiment was conducted on seed Zn enrichment, taking two zinc sources (zinc sulphate and Zn-EDTA) and compared for the economy on 20 popular groundnut cultivars. Two years of study reveals that the application of both the Zn sources increased the Zn content in seed and also the yield and yield attributes and seed quality. Thus the Zn fertilization through either of these zinc sources is must for Zn enrichment in seed through agronomic bio-fortification and enhancement of seed quality.

**Keywords:** Zn-biofortification, Groundnut, Zn-EDTA.

## **F-62: AN INNOVATIVE CONCEPT ON LOW INPUT TECHNOLOGY INCREASING WHEAT YIELD AND ECONOMY AMONG WOMEN FARMERS IN THE RURAL AREAS OF INDIA**

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Wheat (*Triticum aestivum* L.) is second most important food crop after rice in India contributing nearly 20% of total calories and 19.5% of protein which is more than any other food crop. During the past two decades productivity gains from the usual wheat technologies with their substantial input-dependence have unfortunately been declining. Due to which, the small and marginal farmers are facing difficulties in coping with the high demand of costly inputs to meet the requirement of recommended technologies for increasing productions. Under these circumstances alternative method of crop establishment and management that could deal with these conditions—giving higher yield at less cost with low water requirements and more resilience to climatic stresses—are desirable and should be evaluated. System of wheat intensification (SWI) is an alternate method of wheat cultivation. Result has shown that grain yield of wheat may increase up to 91% and it's maximum, with adoption of this technology. Based on this system ten new wheat varieties with local check were distributed to 10 women farmers through participatory varietal selection approach in Central zone of the India. This area comes under heat stress area. Mung bean integrated as relay crop utilizing 2 months fallow period between

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