

Performance of sunhemp to irrigation and foliar nutrition in rice fallows

Shaik Sadik, G Jogi Naidu, P Amarajyothi, P Gurumurthy, A Upendra Rao, S

Tirumala Reddy and Y Rajasekhar

Department of Agronomy, Acharya N G Ranga Agricultural University,
Agricultural College, Bapatla-522101, Andhra Pradesh, India

ABSTRACT

A field experiment entitled “Response of sunhemp to irrigation and foliar nutrition in rice fallows” was conducted during *rabi*, 2024-25 at the College Farm, Agricultural College, Naira. The experiment was laid out in Split-plot design, replicated thrice with four main plots viz., I₁- One Irrigation at 45 DAS; I₂-Two Irrigations at 45 and 75 DAS; I₃-Three irrigations at 45, 60 and 75 DAS and I₄ – No irrigation and Five Sub Plots viz., F₁- Nano Urea @ 4 ml/lit at flower initiation and pod development stages; F₂- Nano DAP @ 2.5 ml/lit at flower initiation and pod development stages; F₃- 19:19:19 (NPK) @ 10 gm/l at flower initiation and pod development stages; F₄- KNO₃ @ 10 gm/l at flower initiation and pod development stages; F₅- water spray. The results revealed that three irrigations at 45, 60 and 75 DAS (I₃) was recorded higher values of plant height (131.6 cm), branches plant⁻¹ (8.4), dry matter production (4971 kg ha⁻¹) at harvest, number of pods plant⁻¹ (22.6), number of seeds pod⁻¹ (8.9) and seed yield (957 kg ha⁻¹). Among foliar applications, the application of KNO₃ @ 10 gm/l (F₄) at flower initiation and pod development stages recorded significantly higher values of plant height (125.3 cm), branches plant⁻¹ (8.0), dry matter production (4373 kg ha⁻¹) at harvest, number of pods plant⁻¹ (23.0), number of seeds pod⁻¹ (8.8) and seed yield (866 kg ha⁻¹).