

## عنوان مقاله:

Enhancing economic water productivity under on farm reservoirs in diversified rainfed cropping systems

## محل انتشار:

مجله تولید گیاهان، دوره 11، شماره 1 (سال: 1396)

تعداد صفحات اصل مقاله: 15

## نویسندگان:

.K.S. Reddy - ICAR-Central Research Institute for Dryland Agriculture, Hyderabad-500 059, India

.V. Maruthi - ICAR-Central Research Institute for Dryland Agriculture, Hyderabad-500 059, India

.M. Kumar - ICAR-Central Research Institute for Dryland Agriculture, Hyderabad-500 059, India

.P.K. Pankaj - ICAR-Central Research Institute for Dryland Agriculture, Hyderabad-500 059, India

## خلاصه مقاله:

A long term study was done to assess the impact of on farm reservoirs (OFR) on oil seed and cereal based cropping systems with vegetables (okra, tomato and carrot) in semi-arid alfisol of southern Telangana region. Two supplemental irrigation (SI) depths (30 and 50 mm) from OFR with rain gun system were studied for assessing the water productivity and profitability of the technology in these cropping systems. Cropping system using sole crop of groundnut or maize, later was found to be more profitable (3 times) with 50 mm SI in 2 critical growth stages having annualized net benefit (ANB) of \$ 971 - 998 / ha and economic productivity (EP) of 31 Cents / m<sup>3</sup> under different capacities of OFR (500-1500 m<sup>3</sup>). In rainy season with single filling of OFR and deficit irrigation of 30 mm SI, maize+tomato was found to be more profitable (ANB: \$ 1659 - 2325 / ha and EP: 37 - 51 Cents / m<sup>3</sup>) as compared to sole crop or with okra. During rainy season and post-rainy season with second filling of OFR at SI depth of 30 mm, maize+tomato+carrot was the most profitable option (ANB: \$ 2544 - 3012 / ha and EP: 37 - 45 Cents / m<sup>3</sup>) as compared to any other combination of the crops. The study revealed that the best economical crop combination under deficit irrigation of 30 mm will make the rainfed agriculture more remunerative with OFR technology with efficient use of surface water.

## کلمات کلیدی:

On farm reservoirs, Supplemental irrigation, Economic productivity, Cropping system, Rainfed agriculture

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/939109>

