

SYSTEM PRODUCTIVITY AND PROFITABILITY OF BABY CORN (*ZEA MAYS L.*) – HORSE GRAM (*MACROTILOMA UNIFLORUM L.*) CROPPING SEQUENCE AS INFLUENCED BY SOWING SCHEDULE AND INTEGRATED NUTRIENT MANAGEMENT

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Received-07.02.2018, Revised-21.02.2018

Abstract: A field experiment was conducted in two consecutive rainy (*khari*) seasons of 2012 and 2013 at Ambikapur to work out the effect of sowing schedule and integrated nutrient management systems on the productivity and profitability of baby corn (*Zea mays L.*) and horse gram (*Macrotyloma uniflorum L.*) cropping system. The horse gram was sown as utera crop just before harvesting of baby corn. Baby cob, baby corn, green fodder, horse gram yield and economics were higher in sowing of first schedule (1st week of July) showed parity with second (2nd week of July) and third (3rd week of July) sowing schedule but significantly superior to fourth sowing schedule *i.e.* 4th week of July. Further, application of 125% RDF + 5 t FYM significantly increased the baby cob, baby corn, green fodder, horse gram yield over 100% RDF and 125% RDF but at par with 100% RDF + 5 t FYM. Combined effect of sowing of first schedule of baby corn and horse gram and application of 125% RDF + 5 t FYM resulted in significantly higher baby corn-equivalent yield in terms of system productivity (2.8 t/ha) which was comparable to sowing of second schedule with 125% RDF + 5 t FYM (2.7 t/ha), sowing of third schedule with 125% RDF + 5 t FYM (2.3 t/ha), sowing of first schedule with 100% RDF + 5 t FYM (2.7 t/ha), sowing of second schedule with 100% RDF + 5 t FYM (2.5 t/ha) and sowing of first schedule with 125% RDF (2.5 t/ha). Hence, Sowing of baby corn on first schedule (1st July) with 125% RDF + 5 t FYM produced maximum system productivity in terms of baby corn-equivalent yield, net profit and benefit-cost ratio. Since, harvesting large amount of baby corn at a time will deteriorate the quality, marketing problem as well as heavy monetary loss. Based on the present study, sowing of baby corn in different schedules, *i.e.* first (1st week of July), second (2nd week of July) and third (3rd week of July) followed by horse gram as utera crop in combination with 125% RDF + 5 t FYM produced comparable higher net profit, hence, recommended for commercial cultivation at farmers' fields of Northern hills of Chhattisgarh, provided all other scientific management practices are followed.

Keywords: Baby corn, Horse gram, Green fodder, Net return, System productivity

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