



Research Paper

EVALUATION OF CASTOR (*RICINUS COMMUNIS* L.) ACCESSIONS AS FEED FOR ERI SILKWORM (*SAMIA CYNTHIA RICINI* BOISDUVAL) AT JIMMA, SOUTH WEST ETHIOPIA

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ABSTRACT

The quality of feed has been proven to play a remarkable role in the growth and development of silkworms and ultimately on the economic traits of cocoons. The present study was undertaken to evaluate thirty two castor accessions for their leaf yielding performance and suitability as feed for eri silkworm rearing. The field experiment was laid out using RCBD design and the laboratory experiment was arranged following CRD design. Plain white eri silkworm breed was used for the rearing experiment in the laboratory. Among castor accessions tested, Acc 219668 registered 13890.9 kg/ha of fresh leaf yield followed by Acc 200361 with 13472.2 kg/ha. During growing season, brown leaf spot disease was encountered and higher disease severity (60.36 %) was recorded on Acc 219662/1. When the host plant superiority was assessed in terms of silkworm rearing performance, shorter larval duration (17.5 days), higher larval weight (7.6 g) and higher fecundity (351.45) were noticed for Acc 200361 while higher hatchability (96.75 %) was recorded for Acc 201067. Acc 200361 was also superior in terms of cocoon weight (3.55 g), shell weight (0.509 g), shell percentage (14.33) and ERR (98.6 %).

Key words: Castor accessions, eri silkworms, rearing performance.