



Nutritional indices of fall armyworm, *Spodoptera frugiperda* (J.E. Smith) on selected sorghum genotypes

Keerthi M.C.^{1,2*}, Padmaja P.G.¹, Bhargavi H.A.², Manjunatha N.² and Dibyendu Deb²

¹ICAR-Indian Institute of Millet Research, Hyderabad-500030, India

²ICAR-Indian Grassland and Fodder Research Institute, Jhansi-284003, India

*Corresponding author e-mail: keerthimanikya@gmail.com

Received: 23rd January, 2020

Accepted: 18th February, 2021

Abstract

The nutritional indices of fall armyworm, *Spodoptera frugiperda* reared on nine different genotypes of sorghum including 5 forage (CSV21F, CSV32, CSV33MF, UPMC503, CSV30F) and 4 sweet sorghum (CSV19SS, CSV24SS, SSV74, SSV84) varieties were evaluated under laboratory conditions. The fifth instar larvae reared on CSV19SS showed the highest value of consumption index (CI) (3.49), approximate digestibility (AD) (80.41) and lowest value of efficiency of conversion of ingested food (ECI) (15.97). The sixth instar larvae reared on CSV21F showed the highest value of relative growth rate (RGR) (0.88). The lowest value of CI, AD and RGR of sixth instar larvae was recorded when reared on UPMC503 (0.70), CSV32 (36.54) and SSV84 (0.32), respectively. The whole larval instar reared on CSV32 showed the highest value of ECI (77.50). The results on nutritional indices and cluster analysis indicated CSV19SS as susceptible to fall armyworm damage.

Keywords: Fall Armyworm, Larval instars, Nutritional indices, Sorghum genotypes