

PP159: Economic impact of broomrape (*Orobanche crenata*) on pulse crop production in northeastern Ethiopia

Girma T Kassie*, Seid Ahmed, Aden Aw-Hassan, Said Silim, Mulugeta Yitayih, Solomon Tiruneh and Mekonen Misganaw

International Center of Agricultural Research in the Dry Areas (ICARDA), Addis Ababa, Ethiopia.

[\(g.tesfahun@cgiar.org\)](mailto:g.tesfahun@cgiar.org)*

Broomrape (*Orobanche crenata*) is a parasitic weed that has become a nuisance to pulse crop production in many parts of Ethiopia. Despite the challenges posed by the weed, there has not been any study on its economic impact at farm household level in Ethiopia. With the aim of filling this gap, this study reports the impact of broomrape on farm level productivity and farm income based on 540 randomly selected households in northeastern Ethiopia. We have employed nearest-neighbor matching and propensity score matching methods to estimate the impact of broomrape infestation and dose-response function to assess the impact of degree of infestation. The results show that farm households are being affected significantly by broomrape. We have suggested research and development interventions that might help in abating the economic losses farmers incur due to this parasitic weed at least in northeastern Ethiopia.