

Survey and Identification of Major Sesame Diseases in Low Land Areas of Western Zone of Tigray, Ethiopia

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Abstract

The survey was conducted at ten specific location major sesame growing representative low land areas of western zone of Tigray. The study was conducted in consecutive three years (2015, 2016, and 2017) at different locations. The objectives of the study were (1) to assess and identify major sesame diseases and (2) to study the prevalence, incidence and severity of different sesame diseases. Bacterial blight (83.24%) recorded the highest diseases incidence followed by powdery mildew (78.13%), fusarium wilt (78%), phyllody (72.01%) and blight leaf spot (72%). Whereas blight leaf spot recorded highest severity (31.33%), followed by fusarium wilt (27.2%), phyllody (25.24%), bacterial blight (22.76%) and powdery mildew (22.6%). Maygaba and division locations recorded the highest diseases incidence (90.49%) and (86.76%) respectively while Lugudi recorded the lowest diseases incidence (48.055). Bacterial blight recorded 100% diseases severity in all locations followed by blight leaf spot in Doka- abagabyo (92%) and phyllody (81%), in Adi-usman and fusarium wilt (61.41%) in Adi usman. From the study recommended that appropriate control methods should be identified and recommended to prevent sesame yield loss and increases productivity. Field diseases assessment and inspection; diseases control should be from emergence to capsule formation and maturity.

Biography:

Yirga Belay Kindeya was graduate MSc. Degree in 2016 plant breeding from Haramaya University. I am working in Tigray agricultural research Institute (TARI) from 2011 onwards as plant breeding researcher from Tigray Agricultural Research Institute (TARI), Humera Agricultural Research Center (HuARC) as a plant breeding researcher (MSC).