Fungicide Sprays on Groundnuts Would Greatly Improve Food Security in Africa

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Leonard Gianessi and Ashley Williams

Peanuts, or groundnuts, are widely used as food by Africans as they are a major source of vegetable protein and edible fat. The kernel contains approximately 25% protein and 50% edible oil. Peanut hay (vine) is a rich protein hay feed for livestock.

The productivity of peanut in Africa is very low (1000 kg/ha) compared to Asia (1800 kg/ha), Argentina (2500 kg/ha) and the U.S. (3400 kg/ha). The lower yields in Africa are particularly attributed to foliar diseases [1]. Yield reductions associated with foliar diseases are related to the loss of leaf area and the resulting reduction in light interception and canopy photosynthesis. Disease severities are so high in Africa that at harvest 80% of the leaves on peanut plants are defoliated due to the combined attack of Cercospora leaf spots and rust [2]. These diseases are endemic in all of the peanut production areas. Yield losses due to these diseases are close to 100% in wet years when farmers abandon harvesting due to poor yields [2]. Seasons with moderate rainfall could result in yield reductions of 29-50% [2].

Farmers in Africa do not apply fungicides to peanut crops. Farmers usually attribute leaf defoliation to maturing of the crop and yield loss from foliar diseases is not recognized [3]. Research has shown that application of fungicides could be used to successfully control leaf spot and improve crop yields up to 80% in Western and Southern Africa [1]. In view of the tremendous yield advantage, fungicide recommendations are being made to African peanut farmers [3]. There is a need to demonstrate the benefits of fungicide sprays to farmers because efficient control of peanut diseases is a prerequisite to the attainment of food security in Africa [1],[2]. Sustainable and economic disease control can be achieved through extensive on-farm use of fungicides.

References