Abstract

Studies have shown that the physiological quality of soybean seed production fields presents spatial variability. One of the possible causes of this variability can be localized attack of pests, especially stink bugs. The goal of this study was to determine the spatial distribution of stink bug damage in soybean seeds in seed production fields and their effect on physiological quality. The study was conducted in four seed production fields in the 2011/12 season, in the central region of Rio Grande do Sul, Brazil. For sample collection, a sampling grid with density of 1:0.10, 1:0.25, 1:0.10, 1:0.25 points/ha was established, with total area of the fields of 4.3, 11.4, 5.9 and 12.7ha and cultivars NA 5909 RG, BMX Turbo RR, NA 5909 RG and NA 4725 RG, respectively. The following determinations were made: productivity, germination test, first count, seedling emergence and tetrazolium test. The generated data were used for the development of digital models (maps) using the ‘System Agricultural CR - Campeiro 7’ software. Damage caused by stink bugs in soybean seeds exhibit spatial variability in production fields and the data are correlated at a minimum distance of 200m. The attacks of stink bug reduce the viability and vigor of soybean seeds at different intensities within the fields of production.