Use of mulching to curb late blight epidemics on potatoes in Paraná, Brazil.

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Potato late blight – PLB is the most destructive foliar fungal disease for the crop in Southern Brazil. Organic farmers are in the urge to find ways to minimize losses due to the disease. Thus, the main objective of this study was to evaluate the effect of mulching on potato crop on late blight epidemic reduction using soil mulching. Two experiments were installed for the spring planting, at Lapa, PR. Treatments were with mulching (60 t/ha fresh weight, plant cover composition was mainly of ryegrass, oats, mixed with wild radish) and no mulching. Cultivars Agata (susceptible) and BRS Ana (moderately resistant) were used in each experiment. Randomized complete blocks with 4 reps was the experimental design. PLB severity was weekly assessed visually on plots to estimate the area under late blight progress curves (AULBPC) for ANOVA. Plot size was of 6 ten-meter long rows, 0.8 m apart. Harvest was done at the 4 internal rows. There was a significant reduction of the AULBPC for the mulching treatment for both cultivars tested. Mulching also influenced positively commercial yield. There was a significant reduction in weed incidence for the mulching treatment as well. These experiments are under way for the Fall season planting.

Palavras-chave: alternative control, Solanum tuberosum, Phytophthora infestans