Influence of winter cover crops and tillage systems on corn stalk rot incidence in Paraná, Brazil / Influência de plantas de cobertura de inverno na incidência de podridão de colmo do milho no Paraná, Brasil.NRX Nazareno[1]; AAP Custodio[2] LBS Canalli[3]; F. Skora Neto[3]; A Calegari[2]. [1]IAPAR, C.P. 2031, CEP 82630-000, Curitiba, PR; [2]IAPAR, C.P. 481, CEP 86001-970, Londrina, PR [3]IAPAR, C.P. 129, CEP 84001-970, Ponta Grossa, PR. E-mail: nilceu@iapar.br.

Corn stalk rot – CSR is a complex disease caused by many organisms, among fungi and bacteria, due to interactions between soil- or residue-borne organisms and environmental stresses acting on the plant. Studies have been done to understand this complex to find ways to minimize losses due to the disease. The main objective of this work was to assess CSR incidence after different winter crop rotations under conventional and no tillage conditions. A winter crop rotation experiment under no till and conventional tillage has been carried out at Pato Branco Iapar Exp. Sta. since 1986, and corn hybrid DKB 240 PRO was planted in all plots at Spring. There were 10 winter alternatives and fallow and clean fallow, totaling 12 treatments, planted in conventional and no tillage stripes, with randomized rotations within the stripes, and 3 reps. Plots were 20 m long by 6 m for each planting system. Only half of plots had N dressing. CSR was assessed in 20 random plants per rotation, planting system and N dressing, using finger pressure at the third internode above soil level. Separate statistical analyses were done using SAS procedures for CSR incidence with and without N dressing. There was no CSR incidence difference within cropping systems. Rotation including leguminous crops (lupine, hairy, or common vetch) decreased CSR incidence, whereas those with grass crops (wheat, rye, ryegrass, or oats) favored the disease. Fallow and oilseed radish favored the most, whereas clean fallow disfavored the most CSR incidence.

Palavras-chave: No till, maize, *Zea mays*