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ETHOGRAPHS TO ORGANIZE EPIDEMIOLOGICAL THINKING – THE ROLE OF DIFFERENT FUNCTIONAL 3 PROPAGULES ON BEAN WHITE MOULD / Etógrafos para organizar o raciocínio epidemiológico - O papel dos 3 diferentes propágulos funcionais no mofo-branco do feijoeiro. A.M. Geraldine¹; M. Lobo-Junior²; S. Savary³; A.C. Café-Filho⁴.
¹Lab. Fitopatologia/ IF Goiano Campus Rio Verde, GO / ²Embrapa Arroz e Feijão – Santo Antônio de Goiás – GO / ³INRA - Institute de Recherche Agronomique – France / ⁴Universidade de Brasília - Brasília. E-mail:alaerson.geraldine@ifgoiano.edu.br.

An ethograph is a disease graph that may be used to synthesize knowledge of a disease epidemiology. In this study, successive versions of an epidemiological ethograph are employed to discuss the phenomenology of the bean white mould cycle and to highlight relationships between different *S. sclerotiorum* propagules, the successive stages of the disease, and bean developmental stages. Yet, the several component processes forming an epidemic are concatenated involving distinct pathogen infectious structures in turn, including sclerotia, apothecia, ascospores, and infectious hyphae. Bean white mould epidemics usually start when sclerotia germinate carpogenically, producing ascospores in apothecia. Ascospores do not directly infect plant foliage, but *via* senescent petals which provide a nutrient source. Subsequently, infectious hyphae spread disease in the canopy. Thus, the cycle of *Sclerotinia* diseases can be divided in sequential phases, corresponding to typical structures of the pathogen life cycle: (1) sclerotia, (2) apothecia and ascospores, (3) infected petals, and (4) infectious hyphae in foliage. The first stage takes into account the overwintering sclerotia. The second stage is characterized by production of apothecia and ascospores at the blooming period. The third stage corresponds to processes involving infected petals, and the fourth stage concerns the spread of infectious mycelium from diseased to healthy vegetative tissues. The ethograph describes the phenomenology of bean white mould through the examination of the disease cycle in detail, taking into account the concatenation of events. The method helped to identify and explicit the relationships among key stages of the disease cycle, the four types of functional propagules, and the factors that affect their respective processes of infection. It constitutes an initial step for the development of a quantitative simulation model.

Palavras chave: *S. sclerotiorum*, propagule, Bean, epidemic.