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DESCRIBING PHYTOTOXIC EFFECTS ON CUMULATIVE GERMINATION

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Abstract—Phytotoxic studies strongly depend on evaluation of germination responses, which implies the need for adequate procedures to account for distinct aspects of the germinative process. For this, indices, comparisons among treatments at various times, and model fitting have been proposed. The objective of this work is to compare the three approaches and select the one providing the greatest insight and precision. Speed of germination, speed of accumulated germination, the coefficient of the rate of germination, comparisons at each determination time, including final germination, and the parameters of the Weibull function were examined. The Weibull function proved the best approach to describe the germination process, providing not only the same type of information about the speed of germination, with greater precision, but also additional information about the initiation and shape of the germination response curve.

Key Words—Allelopathy, *Cistus ladanifer*, germination, indices, phenolics, phytotoxicity, *Trifolium subterraneum*, Weibull function.

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