

ON-LINE CROP AND COVER CROP SELECTION TOOLS FOR CROPPING SEQUENCE DESIGN IN NEMATODE MANAGEMENT. Howard Ferris.

Department of Nematology, University of California, Davis, CA 95616, USA; Email hferris@ucdavis.edu.

Crop rotation and cover crops are useful in nematode management. Plants resistant to one nematode species may increase another. Databases of plant host status to nematodes may not provide sufficient flexibility for crop selection. In a database of over 14,000 plant genotypes, the host status of plants to many nematode species is not available. I assigned plants into categories for each of 650 nematode species: susceptible (5), moderately susceptible (4), moderately resistant (3), resistant (2), non-hosts (1), or unknown (2 or 5). A risk-tolerant user may rate unknowns as probably resistant (2); one who is risk averse may rate them as probably susceptible (5). Many reports of resistance or susceptibility of cultivars to single nematode species provide no indication of host status to other nematodes to which the plant is usually a host. Where data are not reported for a cultivar, I assumed the host status profile of related genotypes. Users of the crop selector can indicate which species are present in the field and the relative importance of those species in relation to future crop sequences. Plants are ranked in ascending order of the product of perceived importance and host status. Two spreadsheets; one for all plant species and the other for potential cover crops, are available for testing crop sequence scenarios on the Nemaplex web site <http://plpnemweb.ucdavis.edu/nemaplex>.