Velvetleaf as Reservoir for Verticillium dahliae

The paper by S. M. Sickinger et al. on Verticillium wilt of velvetleaf in the May 1987 issue of Plant Disease (p. 415) is informative and of particular interest to me because it deals with Verticillium wilt and mentions sunflower, two of my favorite subjects.

The apparent host specificity for velvetleaf of their isolate led the authors to speculate that this host-pathogen association is not important as an inoculum reservoir for cultivated crops. Their evidence indicates that the strain of V. dahliae on velvetleaf in their plots apparently poses no threat to the cultivated crops they tested. It does not, however, eliminate the possibility that velvetleaf might be infected by strains of V. dahliae virulent on crop plants, with or without any symptoms resulting on the infected velvetleaf plants, and might in fact be a good inoculum reservoir for such strains.

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Xiphinema americanum or X. californicum?

The abstract of the article “Survey of Nematodes Associated with Almond Production in California” by M. V. McKenry and J. Kretsch (Plant Disease, Vol. 71, No. 1, p. 71) states that “Xiphinema americanum was most prevalent in the cooler Sacramento Valley region,” and the RESULTS section includes the statement that “Xiphinema sp., locally referred to as X. americanum Cobb, was found to dominate” the Sacramento Valley region.

I am sure that the senior author is well aware of the recognition of X. americanum as a species complex and the establishment of several new species from the X. americanum group by Lamberti and Bleve-Zacheo (Nematologia Mediterranea 7:51-106, 1979). Among the new species is X. californicum, which is recognized as the prevalent Xiphinema species in California, with X. americanum confined to eastern North America.

Drs. McKenry and Kretsch may have their own reasons for not accepting the denomination of new Xiphinema species by Lamberti and Bleve-Zacheo, but if they do, they should state them in their paper. As it is, their paper is in error with regard to their identification of X. americanum. While the authors may choose, unethically, to ignore the work of other nematologists (which, one might add, has been well publicized and accepted by the nematology/plant pathology community), I am surprised that the point was not picked up by the referees of the paper. Although the editorial policies of the journal include the statement that published papers reflect the views of the authors and not necessarily of anyone else, I do think Plant Disease has the responsibility, through the use of suitable referees, to ensure that the published information is authentic.

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Dr. McKenry replies: Prof. Lamberti asks several specific questions about my use of the names X. americanum and X. californicum. I do not yet accept X. californicum as the dominant species of X. americanum sensu lato in the Sacramento and San Joaquin valleys. We have some X. californicun in this area, but there is also X. americanum sensu stricto within 1 km of my office and elsewhere in California. There is also X. pachatchicum = (X. mediterranea) within the area. I have not disregarded Prof. Lamberti’s work, but I have also not yet accepted it. Several years ago, I accepted the name Macroposthonia xenoplax, and I still find myself having to clarify the name changes to agricultural audiences. This makes it very difficult for us to deliver information to clientele. I have sent numerous samples of X. americanum sensu lato to the University of California at Davis. Sometimes they identify the samples as X. californicum and sometimes they are not sure, but I seldom get anything in writing. I never did hear from Prof. Lamberti regarding the samples I sent. Samples I had sent earlier to M. R. Siddiqi at the Commonwealth Institute of Helminthology came back identified as X. mediterranea, as X. americanum, or as intermediate species.

I could have and probably should have referred to the species in the text as X. americanum sensu lato. Instead, I used the layman terminology, “Xiphinema sp., locally referred to as X. americanum”; but I am not prepared to use the name “X. californicum.” There is virus vector work now going on at the University of California at Davis that includes several of the populations I have worked with. Perhaps that will be helpful biological evidence to verify the morphological separations Prof. Lamberti has reported. He probably will not agree that biological data are needed, but I will always be cautious in accepting name changes of economically important species when based almost solely on morphometrics.

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