

**USDA Grant Number 2007-38411-18609
New Paradigm**

Annual Report Year 1

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1.0 Summary. This year we have identified an undergraduate student and a Master's student that will participate in the project. Both students will be visiting Mali in February 2009 to participate in an IPM-CRSP sponsored disease diagnosis workshop, assist in a virus sampling survey in Baguineda and Kati and help initiate a farmer survey on the preference of storage methods for processing tomatoes.

2.0 Publications. The following publication was, in part, the result of surveys conducted for virus diseases in tomato. Two previous UC Davis externs participated in some of these surveys.

Zhou, Y.-C., Noussourou, M., Kon, T., Rojas, M. R., Jiang, H., Chen, L.-F., Gamby, K., Foster, R., and Gilbertson, R. L. 2008. Evidence for local evolution of tomato-infecting begomovirus species in West Africa: characterization of tomato leaf curl Mali virus and tomato yellow leaf crumple virus from Mali. *Arch. Virol.* 153:693-706.

3.0 Products. None in this reporting period, Year 1.

4.0 Outcomes. None in this reporting period, Year 1.

5.0 Dissemination. None in this reporting period, Year 1.

6.0 Future Plans. We will be developing and carrying out a survey of farmers who grow tomatoes in Baguineda and other areas of Mali to determine what tomato preservation method they are more likely to use: drying or canning. We also will be conducting an on-site canning demonstration to show farmers how easy it is to home-can tomatoes. We will consider using fire and solar sources of energy for canning. We also will look into preparing a flyer that describes these methods.

We also plan to continue to assess the acceptance of the integrated pest management (IPM) approach for managing whitefly-transmitted viruses infecting tomatoes in Mali and other countries in West Africa. We will focus on the acceptance of a two month tomato and pepper free period and the adoption and availability of improved early maturing virus-tolerant tomato varieties. As part of the continued effort to better understand the nature and biology of the viruses and other pathogens infecting tomato and other crops in Mali, we will continue to conduct disease surveys and develop improved disease diagnosis methods in conjunction with the IPM-CRSP and our IER colleagues (e.g., Mme. Kadiatou Gamby, Dr. Moussa Noussourou, Mme. Aissata Thera and Abdoulaye Camara).

7.0 Impact. University of California-Davis has now a graduate component in their Mali extern program. The UC-Davis extern program remains closely aligned to the IPM CRSP in Mali which was the original Mali connection with this externship program when it originated in 1999.

8.0 Extern contact information

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