

SUMMARY

From the beginnings of Integrated Pest Management in the 1970's a holistic, multi-disciplined, integrated approach to management was advocated. However, for various reasons, this approach was not always used. Concerns about pollution from fertilizer use, yield and quality considerations, and pest & disease problems resulted in increased attention by industry and researchers to all the various aspects of production agriculture. However, integrated programs often lack standardized approaches to soil analysis interpretation.

In the literature review I have expanded on the attributes of applied soil science and its importance to northern California agriculture. I reviewed the controversial history of the two main schools of thought regarding soil fertility interpretation. I outlined the case for management of organic matter, microbial inoculation and organic amendments, and their present status in agriculture. I elaborated on the benefits of such practices: the potential for less erosion, compaction, and fertilizer pollution, increased pest and disease resistance, and optimum yields with better quality. I described several current projects in orchards and vineyards which are making progress towards truly integrated approaches.

In the coming sections, I will explore some very important questions. What are the trends in fertilizer use by the agricultural industry in northern California? What is the explanation for these trends? Are there any problems with fertilizer use in northern California?