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Asian Citrus Psyllid and Huanglongbing Management in California: How Psyllid Spread Will Affect Grower Costs

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The spread of Asian Citrus Psyllid (ACP) in California is beginning to reach commercial production. As a vector of the pathogen associated with Huanglongbing (HLB), spread of this insect puts at risk the state's billion dollar citrus industry wherever ACP establishes. Management of ACP and infected tree removal are the only known methods of limiting the spread of HLB, but these methods come with their own set of costs and risks. To reduce economic losses, ACP management options for growers are being developed before ACP and HLB spread throughout commercial citrus growing areas in California. This study will present an ex-ante cost comparison of current pest control practices, the IPM best practices for ACP, and the least cost ACP management program for different citrus growing areas in California. Partial budgeting will be used to estimate the costs under each scenario. Partial budgeting compares the changes in income and expenses that would result from implementing a specific alternative; hence it provides an indicator as to how the treatment is likely to affect the profitability of an enterprise (Kay et al. 2004). Because ACP treatments are applied to reduce the risk of HLB infection and ACP causes far less significant direct damage to citrus, changes in revenues are equal to zero and only costs are calculated. To calculate costs, data on material and application costs were obtained from meetings with pest control advisors in California's citrus growing areas.

References

Kay, R., W. Edwards, P. Duffy. 2004. Farm Management. Boston: McGraw Hill