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表面活性剂对农药雾滴在小白菜叶面上 扩展面积和蒸发时间的影响

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1.云南农业大学 工程技术学院,云南 昆明 650201; 2.云南农业大学 植物保护学院,云南 昆明 650201; 3.云南农业大学 经济管理学院,云南 昆明 650201

Influence of Surfactants on Deposition Coverage Areas and EvaporationTime of Pesticide Droplets on Chinese White Cabbage Leaves

- 1.College of Engineering and Technology, Yunnan Agricultural University, Kunming 650201, China;
- 2.College of Plant Protection, Yunnan Agricultural University, Kunming 650201, China;
- 3. College of Economics and Management, Yunnan Agricultural University, Kunming 650201, China

摘要	参考文献	相关文章

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摘要以小白菜叶面为试材,采用连续拍摄并记录下雾滴扩展和蒸发全过程的方法,研究了表面活性剂对农药雾滴在小白菜上扩展面积和蒸发时间的影响。试验证明,在农药中添加表面活性剂,可以扩大农药雾滴的覆盖面积和缩短雾滴的蒸发时间;不同种类和不同添加比例的表面活性剂,使农药雾滴覆盖面积的扩展程度和雾滴的蒸发时间有较大的差异。其中,表面活性剂Tech 408和Fairland2408使农药雾滴扩展面积和蒸发时间影响较大,Nongru500#最小。因此,在农药中加入表面活性剂能改变农药雾滴的蒸发过程,为提高农药的施药效率提供了依据。

关键词: 表面活性剂 小白菜 农药雾滴覆盖面积 农药雾滴蒸发时间 农药施药效率

Abstract: The whole process of droplet extension and evaporation were measured by sequential images after the droplet was deposited on Chinese white cabbage leaves in order to research the influence of surfactants on spray application efficiency. The experiments showed that the deposition coverage area of pesticide droplets increased and the evaporation time of pesticide droplets was shortened after the surfactants added. And it also showed that the deposition coverage area and the evaporation time of pesticide droplets changed with different kinds of surfactants or distinct adding proportions of surfactants, among which, the developing extent of deposition coverage area of pesticide droplets was great when surfactant Tech408 or Fairland2408 was added. And the developing extent of deposition coverage area was much small when Nongru500# was added. The paper showed that the use of surfactants can change the process of droplet evaporation, and it offers a new way to increase the spray application efficiency of pesticide.

Keywords: surfactant Chinese white cabbage deposition coverage area of droplets evaporation time of pesticide droplets spray application efficiency

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