

杨希娃,周继中,何雄奎,Herbst A.喷头类型对药液沉积和麦蚜防效的影响[J].农业工程学报,2012,28(7):46-50

### 喷头类型对药液沉积和麦蚜防效的影响

## Influences of nozzle types on pesticide deposition and insecticidal effect to wheat aphids

投稿时间: 2011-08-17 最后修改时间: 2011-10-01

中文关键词: [喷头](#), [沉积量](#), [害虫防治](#), [蚜虫](#), [雾滴粒径](#), [覆盖率](#), [防效](#)

英文关键词: [nozzles](#) [deposits](#) [pest control](#) [aphid](#) [droplet size](#) [coverage rate](#) [field efficiency](#)

基金项目:国家自然科学基金资助项目(30971940)、国际科技合作专项(2010DFA34570)、高等学校博士学科点专项科研基金资助项目(20090008110015)

作者	单位
<a href="#">杨希娃</a>	<a href="#">1. 中国农业大学理学院, 北京 100193</a>
<a href="#">周继中</a>	<a href="#">2. 沈阳化工研究院有限公司, 沈阳 110021</a>
<a href="#">何雄奎</a>	<a href="#">1. 中国农业大学理学院, 北京 100193</a>
<a href="#">Herbst A</a>	<a href="#">3. 德国联邦农作物研究中心, 布伦瑞克, 德国 38104</a>

摘要点击次数: **262**

全文下载次数: **117**

中文摘要:

为研究雾滴尺寸对药液沉积和麦蚜防效的影响,该试验通过选择不同喷头喷施吡虫啉来防治麦蚜。所选德国Lechler生产的3种喷头(LU120-02、AD120-02和IDK120-02)的VMD(volume median diameter, VMD)相差约100 μm。试验结果表明:IDK喷头在小麦冠层的平均沉积量显著小于LU和AD,而LU和AD这2个喷头之间没有显著差异性,3种喷头在冠层下部的药液沉积量>中部>上部;LU喷头喷施的药液平均覆盖率显著好于AD和IDK,覆盖率随着雾滴粒径的增加而递减;LU喷头喷施的药液的地面损失最大,且显著高于其他两种喷头;3种喷头都体现了对麦蚜的良好防效;从沉积量、沉积均匀性及地面损失量来衡量,AD喷头优于其他2种喷头。

英文摘要:

To study the effect of droplet sizes on deposition and pesticide efficiency, this trial was performed to spray imidacloprid against aphids by choosing different nozzle types. The VMD of the three chosen nozzles from Lechler, i.e. LU120-02, AD120-02 and IDK120-02, were about 100 μm difference. The results demonstrated that: the deposits of IDK nozzle were higher significantly than that of LU and AD, whose deposits had no significant difference. The deposits on different zones of wheat canopy followed: down>middle>upper; LU nozzle achieved significantly better coverage rate than AD and IDK, the increased droplet size meant the lower coverage rate; LU nozzle had the largest ground loss and it was higher significantly than the other two nozzles; the three nozzles all gave excellent field efficiency against wheat aphids; AD nozzle was considered as the optimum candidate in terms of deposits, coverage rate and ground loss.

[查看全文](#) [下载PDF阅读器](#)

[关闭](#)

您是第**5153800**位访问者

主办单位: 单位地址: 北京朝阳区麦子店街41号

服务热线: 010-65929451 传真: 010-65929451 邮编: 100125 Email: [tcsae@tcsae.org](mailto:tcsae@tcsae.org)

本系统由北京勤云科技发展有限公司设计