中国农学通报 2011, 27(第18期7月) 297-300 DOI: ISSN: 1000-6850 CN: 11-1984/S

植物保护—研究报告

干燥条件下不同低龄期饲料对黄粉虫幼虫的影响

杨明禄[1],杨婷婷[2],张亚杰[2]

1. 塔里木大学
2. 塔里木大学植物科学学院

摘要:

为探索低龄黄粉虫幼虫饲喂不同饲料对幼虫死亡率、体重、化蛹和发育历期的影响。在温度22~28℃、相对湿度30%~45%的条件下，34日龄前饲喂5%奶粉、10%奶粉、100%麸皮、20%玉米粉、40%玉米粉、60%面粉、100%面粉和100%玉米粉8种饲料，后改饲喂纯麸皮饲料，期间不添加其它饲料或水，分别在34日龄和161日龄调查死亡率和体重，每周检查幼虫的化蛹情况。结果表明，34日龄的幼虫体重和死亡率差异极显著，100%玉米粉死亡率（44.00%）最高、体重（0.677 mg/头）最轻，与其它处理之间差异极显著，5%奶粉死亡率（4.33%）最低、体重（1.804 mg/头）最重；各处理对161日龄幼虫的体重影响差异不显著，5%奶粉、10%奶粉和40%玉米粉的死亡率显著低于其它处理。总之，低龄幼虫期饲喂高蛋白饲料可使幼虫期的死亡率下降，幼虫发育历期略有延长，化蛹时间相对较为集中，但对大龄幼虫的体重影响不明显。

关键词: 发育历期

Effect of Different Food for Young Larvae and Drying Conditions on Tenebrio molitor L. Larvae

Abstract:

Effect of different feeds for young larvae on death rate, weight and developmental period were studied in dry conditions. Under the condition of 22~28℃, 30%-45% relative humidity, 8 kinds of food were supplied for the larvae before the 34 days-age, including 5% milk powder, 10% milk powder, 100% wheat bran, 2% maize powder, 4% maize powder, 60% wheat flour, 100% wheat flour or 100% corn flour, then 100% wheat bran was fed to all Larvae, even no water was added. The death rate and weight of Larva were determined at 34 and 161 days-age, and the number of pupation was determined every week. The results showed that: at 34 day-age, the results showed that the death rate and weight of Larva were significantly different, the death rate of feeding 100% maize powder group achieved maximum (44.0%), and its weight was minimum (0.677 mg/head), while the death rate of 5% milk powder was lowest (4.33%), and its weight was highest (1.804 mg/head). At 161 day-age, the weight of Larva was not significantly different, but the death rate of 5% milk powder, 10% milk powder or 100% wheat bran group was significantly lower than other group. In sum, supplementing protein-rich feed would decrease the death rate, elongate slightly the development period, centralize the pupating progress of larvae, but there was not significantly effect on weight of old Larva.

Keywords: developmental period

收稿日期 2011-03-01 **修回日期** 2011-05-30 **网络版发布日期** 2011-07-27

DOI:

基金项目:

校长硕士基金;教学基础资源建设项目

通讯作者: 杨明禄

作者简介:

作者Email: ymlzkytd@163.com

参考文献:

[1]刘玉升,王付彬,崔俊霞,等.黄粉虫资源研究利用现状与进展[J].环境昆虫学报,2010,32(1):106-114 [2]杨兆芬,林跃鑫,陈寅山等.黄粉虫幼虫营养成分分析和保健功能的实验研究[J].昆虫知识,1999,36(2):97-100 [3]周文宗,白宇,孙玉传.黄粉虫自相残杀特性研究[J].特产研究,2002,24(4):27-28 [4]张丹,周玉书,李庆辉.不同饲料对黄粉虫幼虫生长发育的影响[J].江苏农业科学,2008,(3):274-276 [5]陈根富,刘团举.黄粉虫的生物学特性及养殖技术的研究[J].福建师范大学学报(自然科学版),1992,8(1):66-74 [6]王应昌,陈云堂,李兴瑞,等.黄粉虫幼虫饲养及其加工利用效果研究[J].河南农业大学学报,1996,30(3):288-292 [7]杨兆芬,倪明,黄敏,等.黄粉虫成虫繁殖力及影响幼虫发育的因素[J].昆虫知识,1999,36(1):24-27 [8]华红霞,杨长举,余纯,等.饲养条件对黄粉虫幼虫生长的影响[J].华中农业大学学报,2001,20(4):337-339 [9]王学贵,郑晓薇,李晓宇,等.温度对黄粉虫生物学特性的影响[J].中国农学通报,2010,26(8):230-233

本刊中的类似文章

1．蓝江林,，贺福德.温度、光周期和相对湿度对棉蚜茧蜂（Lysiphlebia japonica（Ashmead））发育和繁殖的影响[J]. 中国农学通报, 2005,21(11): 328-328