

研究论文

# 烟草和香芋上斜纹夜蛾的自然种群生命表

周忠实<sup>1</sup>, 陈泽鹏<sup>2</sup>, 邓海宾<sup>3</sup>, 陈永明<sup>3</sup>, 许再福<sup>1,\*</sup>

1.华南农业大学昆虫学系, 广州510642 2.广东省烟草公司, 广州510030 3.广东烟草南雄科学研究所, 南雄512400

收稿日期 2006-8-31 修回日期 2007-2-7 网络版发布日期: 2007-4-25

**摘要** 应用作用因子生命表方法, 组建烟草和香芋上第2、3代斜纹夜蛾*Spodoptera litura* (Fabricius)自然种群生命表, 分析作用因子对斜纹夜蛾种群数量的控制作用。结果表明, 2005和2006年烟草和香芋上第2、3代斜纹夜蛾种群的增长倍数均以香芋高于烟草。无论烟草还是香芋上第2、3代斜纹夜蛾, 均以“捕食及其它”的排除作用控制指数最大。如排除所有天敌等作用因子的作用, 2005年烟草上第2、3代斜纹夜蛾自然种群趋势指数将分别增长31.2029和50.0371倍, 香芋上第2、3代斜纹夜蛾自然种群趋势指数将分别增长29.3492和41.2873倍; 2006年烟草上第2、3代斜纹夜蛾自然种群趋势指数将分别增长33.1421和75.4167倍, 香芋上第2、3代斜纹夜蛾自然种群趋势指数将分别增长31.5357和70.5355倍。说明天敌等自然作用因子对斜纹夜蛾种群数量有较为明显的控制作用, 而烟草上的自然作用因子的作用要强于香芋上的自然作用因子。

**关键词** [斜纹夜蛾](#); [烟草](#); [香芋](#); [作用因子](#); [生命表](#)

分类号 [Q142](#)

## Life table of natural population of *Spodoptera litura* (Fabricius) on tobacco and taro

ZHOU Zhong-Shi<sup>1</sup>, CHEN Ze-Peng<sup>2</sup>, DENG Hai-Bin<sup>3</sup>, CHEN Yong-Ming<sup>3</sup>, XU Zai-Fu<sup>1,\*</sup>

1 Department of Entomology, South China Agricultural University, Guangzhou 510642, China

2 Guangdong Company of Tobacco, Guangzhou 510030, China

3 Nanxiong Tobacco Research Institute of Guangdong, Nanxiong 512400, China

**Abstract** Tobacco caterpillar, *Spodoptera litura* (Fabricius) is an important insect pest on tobacco and taro causing serious damage by defoliation. In order to master the control effect of different factors on *S. litura*, the life table of natural population of *S. litura* on tobacco and taro were studied. The results indicated that the increasing populations of *S. litura* of 2<sup>nd</sup> and 3<sup>rd</sup> generation on taro were all higher than that of *S. litura* of 2<sup>nd</sup> and 3<sup>rd</sup> generations on tobacco in 2005 and 2006, respectively. Among different factors of *S. litura* on tobacco and taro, “predators and others” was the most effective factor. If all natural factors were excluded, the indices of population trend (*I*) of *S. litura* of 2<sup>nd</sup> and 3<sup>rd</sup> generations would increase 31.2029 and 50.0371 times on tobacco, respectively and increase 29.3492 and 41.2873 times on taro, respectively in 2005, while the indices of population trend (*I*) of *S. litura* of 2<sup>nd</sup> and 3<sup>rd</sup> generations would increase 33.1421 and 75.4167 times on tobacco, respectively and increase 31.5357 and 70.5355 times on taro, respectively in 2006. From the results, we may suggest that these natural factors, a certain extent, have a good control effect on the population of *S. litura*, and the control effect of these factors on tobacco was better than that on taro. Key Words: *Spodoptera litura*; tobacco; taro; functional factor; life table

**Key words** [Spodoptera litura](#) \_ [tobacco](#) \_ [taro](#) \_ [functional factor](#) \_ [life table](#)

### 扩展功能

#### 本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(322KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

#### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

#### 相关信息

- ▶ [本刊中包含“斜纹夜蛾; 烟草; 香芋; 作用因子; 生命表”的相关文章](#)
- ▶ [本文作者相关文章](#)

- [周忠实](#)
- [陈泽鹏](#)
- [邓海宾](#)
- [陈永明](#)
- [许再福](#)

---

通讯作者 许再福 [xuzaiyu@scau.edu.cn](mailto:xuzaiyu@scau.edu.cn)