

then produced through meiosis and maturation to yield mature sperms without dominant lethal mutation.

Summary

Effects of apholate, tepa, metepa, hempa and hemel on the development and fertility of *M. d. nebulo* were studied by dipping the four day old larvae in ethanol solutions of these chemicals for different periods of time. It was found that higher concentrations of apholate, tepa, metepa, hempa and hemel totally retarded the development by producing high degree of mortality. Even the larvae which pupated failed to produce adult flies. Oviposition was prevented in flies treated with apholate, tepa, metepa and hempa at higher concentrations which permitted some adult emergence. It was very interesting that 100.0 percent net sterility was not achieved in any test with all the five chemosterilants. At lower concentrations very low sterility was observed.

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抄 録

ヤガの1種 *Spodoptera littoralis* Boisduval に
およぼすジベレリンと β -シトステロールの不妊化
作用

Giberellic Acid and β -Sitosterol as Sterilants
of the Cotton Leaf worm *Spodoptera littoralis*
Boisduval. H. S. Salama and A. M. El-Sharaby,
Experientia, 28, 413 (1972).

ジベレリンと β -シトステロールの昆虫の成長にお
よぼす影響について実験を行なった。

半人工飼料でヤガの1種 *Spodoptera littoralis* Bois-
duval を飼育し、テストする物質0.1%を入れて同じ
ように飼育して、幼虫、蛹の発育、蛹の重さ、羽化率
を測定し比較した。さらに得られた成虫30対を容器に
入れて、産卵、孵化率をしらべた。その結果、コント
ロールと比べて、次のような変化が生ずることがわか

った。

1. 幼虫期が長くなる。
2. 蛹の重さは、シトステロール添加で減少する。

コ	ン	ト	ロ	ー	ル
♂	241.0	±	13.3	mg	♀ 267.1 ± 13.2mg

 シトステロール添加

♂	196.6	±	9.11	mg	♀ 209.8 ± 8.27mg
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3. ジベレリン添加で飼育した成虫の産卵は減少す
る。
4. 孵化率は、ジベレリン、シトステロール添加共
に減少する。

コントロール	99.4%
ジベレリン添加	1.4%
シトステロール添加	8.5%

 (高橋正三)