

day temperature is above 10°C, the nymphs will climb up to bamboo culm and feed in aggregation. There is a close relationship between the number of nymphs climbing to bamboo culms and the relative humidity, which is a linear regression as  $Y = 75.89 - 0.77x$ . If the temperature decreases or it is windy and rainy, the nymphs will climb down from the bamboo culms and try to hide themselves. Adults appear from the end of May to the beginning of June. Both the overwintered nymphs and the adults feed the old culms at the same time, and they have a habit of feigned death. After feeding for 15–35 days, the adults start to mate. The female may couple with the male for several times and then oviposit eggs on the back of the new culm's leaves in 30–45 days. A female may lay 30–60 eggs. The starting temperature and day accumulative temperature for the egg's development are 20.3°C and 39.2°C day<sup>-1</sup> respectively. 1-instar nymph does not feed. There are 5 instars in the nymphal stage. The life span of the female is around 70 days. The nymph dropped down to the ground and overwinter under the litter.

**Key words:** *Hippota dorsalis* (Stål); biology; bamboo

## 增产显著的MG满果粉系列产品研制成功

表1 MG满果粉提高坐果率的作用

植 物 名 称		坐 果 率 (%)		
		喷药组	对照组	提高比例
经 济 林	板栗	88.6	70.2	26.2
	乌柏	27.6	19.4	42.3
果 树	柑桔	1.86	1.40	32.9
	梨	8.30	2.50	232.0
用 材 林	杉木	(15.6)	(8.5)	83.5
	柳杉	(20.9)	(4.0)	422.5
观 赏 植 物	法国冬青	34.4	14.9	130.9
	南天竺	65.1	51.4	26.7

注：有括号者，为球果内胚珠成育率。

42.3个增加到63.0个，豆荚数增长了48.8%，且种粒饱满，产量差异更大。

MG满果粉，是一种拟花粉状粉剂，淡黄色，能溶于水。现有三种型号，可供用户选择。其中，MG-1型，主要适用于油菜、黄豆等农作物；MG-2型，主要适用于杉木、柳杉等木本植物；MG-3型，主要适用于柑桔、荔枝、柿子、银杏等果树。

(亚热带林业研究所 韩宁林 王成霖)

根据国内外植物栽培学方面的一系列最新科研成果，针对植物开花、结实、长籽的需要，选用适当的材料，科学配方，精制成MG满果粉系列产品，经对板栗、柑桔、杉木、柳杉、黄豆、油菜等植物的广泛试验，证明有显著增加花芽数量、提高坐果率、充实种子饱满程度等功效，增产作用稳定，无毒害，无副作用，增产率在20%以上，其经济效益可以超过成本的五倍。这为果园、林木种子园及其它多种作物的生产带来了福音。满果粉提高坐果率和林木种子成育率的效果，见表1。

对黄豆喷施满果粉后，单株结荚量由