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Area Wide Control of Chinese Citrus Fly (*Bactrocera minax*(Enderlein))

Using GREAT® Fruit Fly Bait *

Background: Chinese Fruit Fly (CCF) is a serious citrus pest found in many major citrus growing provinces, causing heavy financial losses for growers and exporters, threatening the whole industry.

Methods: An Area Wide Control Program (AWCP) for CCF was initiated by Beijing Ecoman Biotech Co., Ltd. in conjunction with the National Agro-Tech Extension and Service Center (NATESC) under the Chinese Ministry of Agriculture (MOA) as well as local plant protection agencies, implementing AWCP for CCF in 6 provinces across China between 2010 and 2013, total acreage exceeds 150,000 hectare, with an increasing acreage accepting the fly control measures and products used by the AWCP. The program consists of 3 subsystems: The fly monitoring system, the bait application system, and efficacy evaluation system. Each system was organized through close collaborations amongst stakeholders including the company, local governments, farmers and the local plant protection stations. The company provided the effective products, training and methods for monitoring and control with proper training and technical support, the local governments provide aid fund as incentive for encouraging the farmers joining the program, the farmers pay partial cost for the initial control, and the local plant protection agents oversee the bait application and evaluate the result.

Results & Conclusions: The AWCP resulted in great success in lowering the fruit infestation rate in citrus plantation in large area. Typically, for the area where fruit infestation rate was generally over 20% in the previous season, the fruit infestation rate can be lowered to less than 2% for the first season of implementing AWCP and below 0.5% for the following season.

***GREAT® Fruit Fly Bait:** GREAT® is a Green Pest Management (GPM) product that is formulated based on the knowledge of the biological behavior of fruit flies, particularly their need for special nutrients after emerging from the pupa. It is irresistible to both male and female fruit flies, especially to the newly emerged females in search of a food source to promote egg development.

Advantages of GREAT® Fruit Fly Bait:

- (1) **Highly efficient** - Proper application can result effective protection of fruits from fly damage.
- (2) **Cost Effective** - Great value for money.
- (3) **Environment Friendly** - Safe to animal and the environment.
- (4) **Clean and Safe** - Bio-Sustainable. No chemical residue on fruits.



Test Area	Crop	Survey Trees	No. of Fruits examined	Infested fruits	Infested Rate
Nanya Town	Navel orange	50	1000	2	0.2%
Tieqiao Town	Navel orange	150	3200	5	0.2%
Tieqiao Town	Navel orange	50	1200	6	0.5%
Dunhao Town	Navel orange	50	1200	18	1.5%
Baiqiao Town	Navel orange	50	1635	33	2%
Dade Town	Navel orange	50	1590	18	1.1%
Jinfeng Town	Navel orange	150	3580	104	1.9%
Jinfeng Town	Navel orange	50	1060	2	0.2%

Summarized example of surveyed areas in Chongqing for fruit fly AWCP covering 15,000 Ha of Citrus

With over 6 years of very successful cases performed against *Bactrocera minax* all over China, and *B. invadence* in West Africa, covering over 375,000 acres of citrus & mango, Area Wide Control Program (AWCP) has shown to be the most efficient ecological solution in fruit fly control.