

**INNOVATIVE INSECT PHEROMONE TECHNOLOGY TO  
ACCELTE THE INTEGRATED PEST MANAGEMENT (IPM)  
PRACTICE IN CHINA**



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- The NewCon Inc. was founded in 2004 by Dr. Du Yongjun, who move back from the University of California Riverside USA;
- Since its establishment, NewCon Inc. has been committed to the research and development of insect pheromone applied technology and it is a private high-tech enterprise that integrates the research and development, production, extension and market of insect pheromones and related pest monitoring and control.
- Pheromone products of more than 100 pests have been developed and manufactured by the company and widely used in the monitoring and control of crop pests in China, such as rice, corn, vegetables, fruit trees, tea, tobacco, etc., The total of annual sale was over \$10 million in 2017.
- Our insect pheromone products have been suggested as best pheromone products by the Ministry of Agriculture to be applied in China.
- The automatic data collection and transmission of pest monitoring by sex pheromone trapping has been developed and widely used in the monitoring and forecasting of national agricultural and forestry pests in China.

# High Quality Sex Attractant

- Solve the difficulty of pheromone component purity and geographical difference—high efficient trapping
- Solve the problem of slow release controlled and stabilization of compounds. The effective longevity is up to 2-3 months, even 6 months;
- Establish standardization of manufacture and quality control system to ensure high quality.



**PVC Capillary lures**



**HALO Septa**



# LIST OF INSECT PHEROMONE LURES

NAMW	NAME	NAME	NAME
<i>Acanthoplusia agnata</i>	<i>Cydia pomonella</i>	<i>Helicoverpa assulta</i>	<i>Pectinophora gossypiella</i>
<i>Adoxophyes orana</i>	<i>Cydia trasias</i>	<i>Homeosoman nebulella</i>	<i>Phyllocnistis citrella</i>
<i>Agrotis ipsilon</i>	<i>Dendrolimus punctatus</i>	<i>Homona magnanima</i>	<i>Plodia interpunctella</i>
<i>Agrotis segetum</i>	<i>Dendrolimus spectabilis</i>	<i>Hyphantria cunea</i>	<i>Plutella xylostella</i>
<i>Ancylis sativa</i>	<i>Dendrolimus superans</i>	<i>Lasioderma serricorne</i>	<i>Scirpophaga incertulas</i>
<i>Athetis lepigone</i>	<i>Dendrolimus tabulaeformis</i>	<i>Leguminivora glycinivorella</i>	Scolytidae
<i>Bactrocera cucurbitae</i>	<i>Diaphania pyloalis</i>	<i>Lithocolletis ringoniella</i>	<i>Scrobipalpa heliopa</i>
<i>Bactrocera dorsalis</i>	<i>Diaphania indica</i>	<i>Loxostege sticticalis</i> Linne	<i>Sesamia inferens</i>
<i>Bactrocera minax</i>	<i>Diaphania perspectalis</i>	<i>Lymanteia dispar</i>	<i>Sitotroga cerealella</i>
<i>Caloptilia theivora</i>	<i>Dichocrosis punctiferalis</i>	<i>Lyonetia clerkella</i>	<i>Spodoptera exigua</i>
<i>Carposina niponensis</i>	<i>Ectropis obliqua</i>	<i>Maruca testulalis</i>	<i>Spodoptera litura</i>
<i>Ceratitis capitata</i>	<i>Ephestia elutella</i>	<i>Monochamus alternatus</i>	<i>Tetramoera schistaceana</i>
<i>Chilo infuscatellus</i>	<i>Euproctis pseudoconspersa</i>	<i>Mythimna separata</i>	<i>Trichophysetis cretacea</i>
<i>Chilo sacchariphagus</i>	<i>Grapholitha inopinata</i>	<i>Ostrinia furnacalis</i>	<i>Trogoderma granarium</i>
<i>Chilo suppressalis</i>	<i>Grapholitha molesta</i>	<i>Ostrinia nubilalis</i>	<i>Tuta absoluta</i>
<i>Cnaphalocrocis medinalis</i>	<i>Helicoverpa armigera</i>	<i>Parathrene regalis</i>	<i>Xestia c-nigrum</i>

# Flying Moth Traps Solve the Bottleneck of Mass Trapping

Flying moth trap(Patent No. ZL201220169331.4 ®)--The Flying moth trap was developed after 5 years of field observation of pest flight trajectory, which solved the bottleneck of most pest traps and made it possible to use sex-sensing technology for large-scale use.

- ◆ High trap rate
- ◆ Good versatility
- ◆ Waterless basin
- ◆ Non-adhesive
- ◆ easy to use
- ◆ Low cost of use



**For mass trapping**



**For Monitoring**

**It Can be used to trap most moth pests in rice, corn, cotton, tobacco, vegetables, fruit trees, etc.**



Second generation *Helicoverpa armigera*  
in Zoucheng Henan China in 2016

Accumulation of 5 traps of overwintering  
generation *Chilo sacchariphagus*  
in Xiaoshan Zhejiang China in 2017





# PHEROMONE TRAPS



**Noctuid moth trap**



**Trap for small insects**



**Cross-vane trap**



**Trap for fruit flies**



**Flying moth trap**

# Insect Pheromone Mass Trapping Has Been widely used in China to Pest Monitoring and Control





# Tomato leafminer(*Tuta absoluta*)



# Mating Disruption



**Dispensers**

- Features: Efficiency period reaches 6 months, Species specific, easy manipulated.
- Insect species: *Grapholitha molesta*, *Cydia pomonella*, *Ostrinia furnacalis*, *Chilo suppressalis* etc.



**Pheromone puff by electronic system**





# Mating Disruption Technology



# “Smart Trap” of Pest Monitoring System by Sex Pheromone

## Flying moth trap (SPT-R-02)



## Noctuid moth trap (SPT-N-02)





# Monitoring Pests of SPT-R-02

*Dichocrosis punctiferalis; Helicoverpa armigera ;  
Acanthopplusia agnata; Cnaphalocrocis medinalis; Ostrinia  
furnacalis; Loxostege sticticalis; Ectropis obliqua; Chilo  
infuscatellus; Athetis lepigone; Chilo  
suppressalis; Diaphania indica; Pectinophora  
gossypiella; Tetramoera schistaceana; Diaphania  
perspectalis; Helicoverpa armigera; Ostrinia  
nubilalis; Scirpophaga incertulas; Trichophysetis  
cretacea; Dichocrosis punctiferalis; Chilo  
sacchariphagus; Homeosoman nebullella; Ostrinia  
furnacalis; Helicoverpa assulta; Helicoverpa assulta*



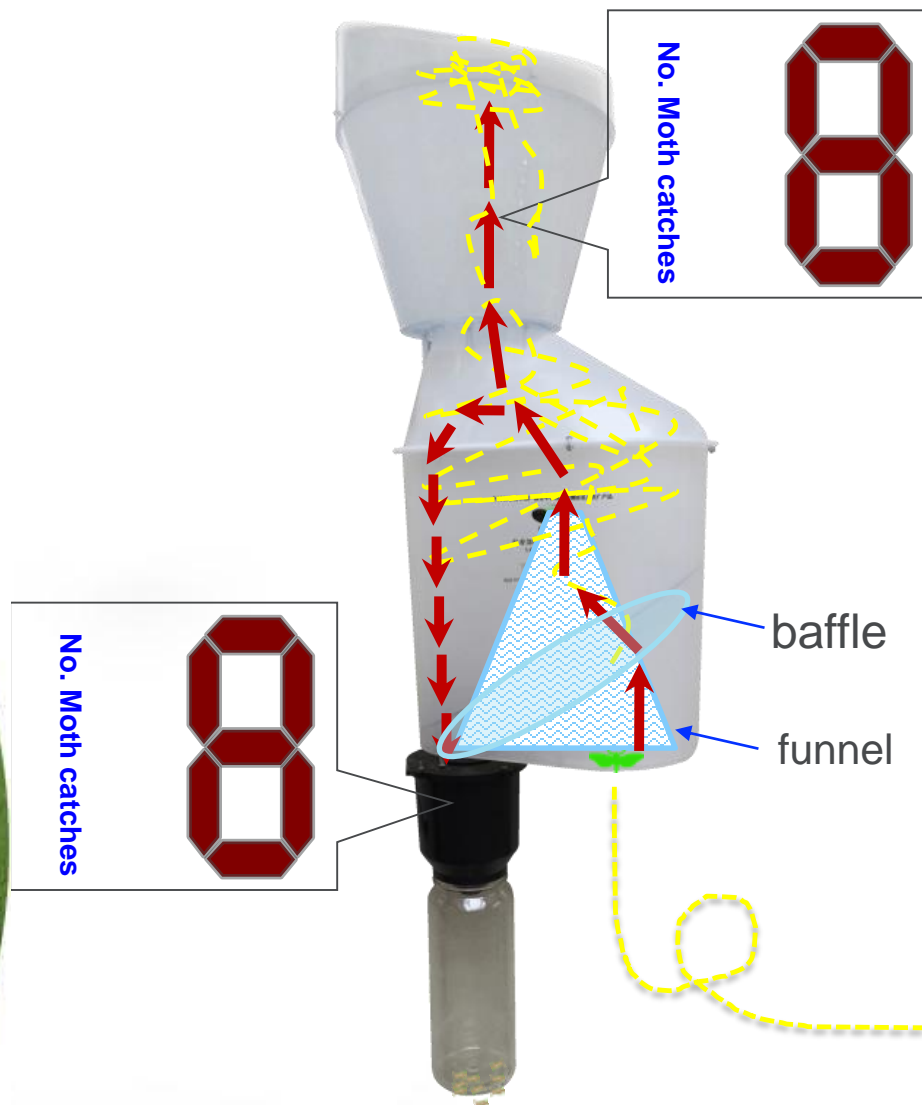
# Monitoring Pests of SPT-N-02

*Xestia c-nigrum; Xestia c-nigrum; Leguminivora  
glycinivorella; Sesamia inferens; Sesamia  
inferens; Sesamia inferens; Etiella zinckenella; Maruca  
testulalis; Agrotis segetum; Agrotis segetum; Agrotis  
ipsilon; Agrotis ipsilon; Agrotis ipsilon; Agrotis  
ipsilon; Agrotis ipsilon; Spodoptera exigua; Spodoptera  
exigua; Spodoptera litura; Spodoptera litura; Spodoptera  
litura*





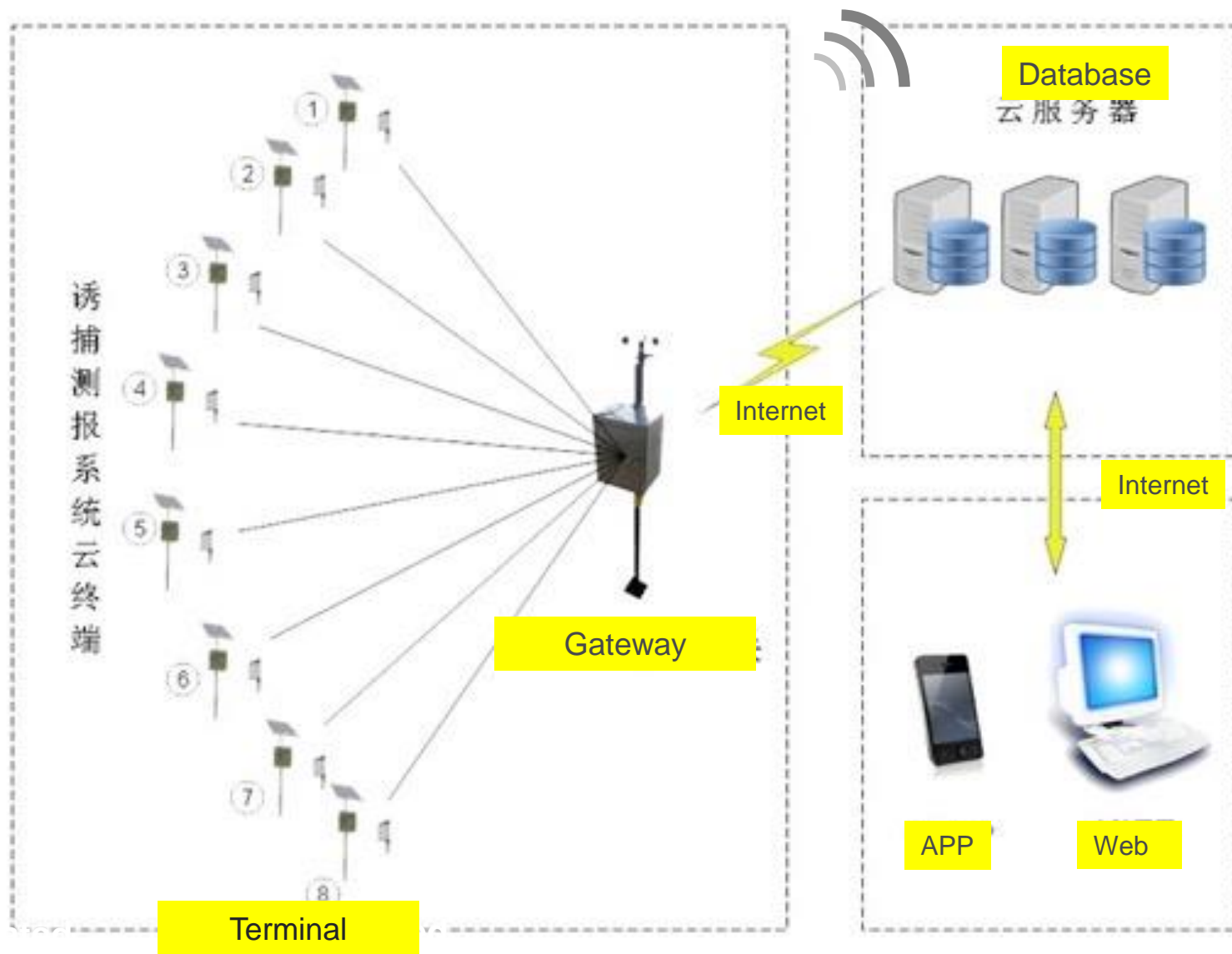
Insect collector 2



Insect collector 1

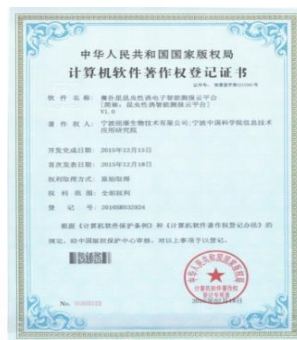


# Diagram of “Smart Trap” System data flow





- Automatic Real-time data collection by pheromone trapping in the field
- Insect catches are automatically counted and saved in real time
- Wireless Transmission (GPRS) of data
- Access to App in the Smart phone and web-based management system in the internet
- One gateway can be connected to 8 terminals at the same time



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 ZL200920190971.1  
 ZL200920197756.4  
 ZL20122099291.0  
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 CN201320108496.5  
 CN201520008554.6  
 ZL201410284517  
 ZL201520185578.9

# Review and Analyze Data of “Smart Trap” System



APP in the smart phone



[www.smttrap.com](http://www.smttrap.com)



