

Controlling the Corn Borer in Xinjiang Province

At the end of June 2017, the city of Bole in Xinjiang, China suffered an outbreak of corn borers, a species of moth whose larvae feed on corn crops. In order to control the outbreak, the Xi'an based Tianyi Aviation Technology Co., Ltd. sent out an agriculture service team to conduct aerial spraying for the 2,735 acres of affected field.



DJI MG-1S during operation

Upon arrival, the team thoroughly assessed the situation, finding that 50-55% of the crops had been affected. Borers damaged young cobs and leaves, and the situation looked ready to progress further.



Spraying Conditions

The weather was ideal for aerial spraying with calm winds and mild temperature. The team decided to start their operation on June 25, 2017.

Operation Time	Jun 25-Jul 13, 2017	Location	Bole City, Xinjiang Province, China
Terrain	Drylands	Environment & Weather	Sunny (16-26°C) Level 2 winds

Dosage

According to the infection, the team decided to use multiple pesticides to maximize results.

Pesticide	Dosage Form	Effective Component and Concentration	Dosage (/acre)
Beta-cyfluthrin	Suspending agent	10%	40.24 ml
Chlorpyrifos	Emulsifiable Concentrate (EC)	45%	610 g
Profenofos & Phoxim	EC	Total: 40 Phoxim: 34% Profenofos: 6%	121 ml

Operation Parameters

Operation Mode	Intelligent	Flight Speed	4.5-5 m/s
Flight Altitude	2.5 m	Working Interval	5 m
Dosage (L/acre)	1	Nozzle Type	Fan shape XR11001

Pest Control Effect

Random sampling before spraying showed that, in average, there were 30 borers on every 50 corn plants. The figure dropped to 6 per 50 plants after spraying, indicating a mortality rate of approx. 80%.



Result

The spraying was proved to be very effective in controlling pest infections, which was also widely recognized by local farmers.

