

# Flite-Gard SYSTEM

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Flite-Gard  
P.O. Box 279  
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FLYING HIGH WHEN IT RAINS.

## PRODUCT INFORMATION

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The problem was attacked by spraying the birds with various chemicals, producing a water resistant coating on the feathers. This proved to be difficult as there were several parameters to be met at the same time. They were:

1. The coating must not injure the bird.
2. The bird must still be recognizable to the dog by smell.
3. The dog must still be able to point the bird.
4. The dog must be able to retrieve the bird.
5. The coating must be non toxic and edible by the hunter.
6. The coating must be quick acting so the decision to apply Flite-Gard can be made the morning of the hunt.

After several months of trials by two chemists, the proper mixture was obtained, and field trials proved that all parameters were met.

Since the hand application was cumbersome and was not commercially feasible, the next step was to design an application machine. The result was the Flite-Gard System. This system consists of a holding pen, an upper and lower sprayer powered by air, and a control system to enable the Operator to apply the proper amount of the mixture to the birds.

The system is simple to operate. It consists of a switch to start the system, indicator lights to inform the operator that the system is ready, and a button to initiate the spraying sequence.



The Flite-Gard System was devised to solve a recurring problem at game bird hunting resorts. When rain occurs on a day that a hunt is scheduled, the grass and bushes become wet. The birds also become wet and cannot fly. Several factors contribute to this problem. First, the birds' feathers mat together when wet, and the lift provided by the wing feathers is reduced. Secondly, the wet birds become heavy, thereby making it more difficult to obtain flying speed and altitude. Therefore, when the birds are flushed, they attempt to fly but cannot, and the hunt is spoiled.

When the power switch is turned on, it immediately begins a sequence of events as follows:

1. The heaters are activated in the spraying modules.
2. The air compressor pressurizes the spraying modules.
3. The heater indicator lights are lit.
4. The system heats to the proper temperature for Application, and the thermostats maintain the proper temperature while the system is being used.
5. The spray mixture in the modules is heated to the proper temperature .
6. The heat indicator lights go off, indicating that the system is ready.

When the system is ready, the operator presses the spray button, and the following events take place:

1. The spray switch initiates a timer, closing a relay which opens two solenoids in each spray module.
2. The spray mixture is allowed to flow through two valves into spray nozzles, thereby generating an atomized mist which coats the birds on top and bottom.
3. While the solenoid valves are open the green lights on the control panel are lighted, indicating to the operator that the spray is being applied.
4. The spraying time is very short , less than a second, so that the birds are not damaged in any way.
5. The drawer of 50 birds is removed and another drawer of 50 birds is inserted into the application cabinet.

The birds are then removed from the application drawer and placed either in cages to go to the field or in a holding pen for later use. The birds are allowed to dry for approximately one and a half to two hours at which time they are ready to go to the field.