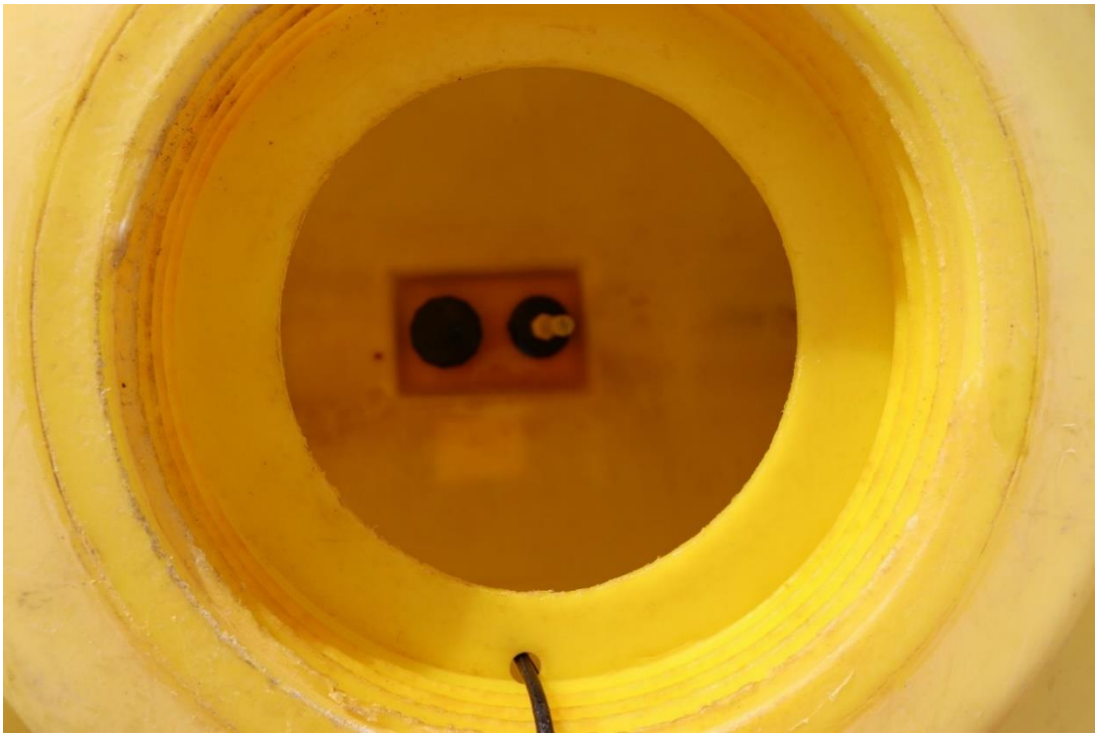
Propeller™ New Formulation Large Volume Dispersion Testing

Background: A previous formulation of Propeller™ did not disperse, for some applicators, in water without agitation in a manner acceptable to large volume aquatic applicators. Alligare, responding to customer concerns, reformulated Propeller™ to achieve acceptable dispersion.

Initial Testing: Gary Custis, CPA, Alligare Market Development Specialist, conducted small-batch jar tests to compare the new Propeller™ formulation to Clipper™ -- a competitive product formulated by Valent BioSciences, LLC. This test revealed comparable if not better mixing by the new Alligare Propeller™ formulation.

Large Tank Field Comparable Testing: Procedure coincides with photos below. Testing was performed by Dr. Scott Nissen, Colorado State University, Dr. George Beck, Colorado State University (Ret.) and current Alligare Market Development Specialist and Chuck Wilcox, Alligare Marketing Manager.

STEP 1: Started with empty, dry, 200-gallon spray tank.



STEP 2: Dr. Beck added 3.4 lbs. of the new Propeller™ formulation to the dry tank.

STEP 3: We began adding water before deciding to snap a shot of the dry product alone in the bottom of the tank so shortly after beginning to fill, we stopped and took this photo.

STEP 4: Dr. Beck adds 100 gallons of water to the 3.4 lbs. of the new Propeller™ formulation to achieve a 22 gallon per acre total spray solution. This total solution was chosen based on conversations Gary Custis had with applicators experiencing mixing issues with the old formulation. Dr. Beck is making sure to direct the water flow towards the side of the tank so that the water coming from the hose is not making direct and immediate contact with the product in the bottom of the tank. This is to ensure minimum agitation of the product while filling the tank.

STEP 5: This is showing the pile of product still exists during filling.

STEP 6: After Dr. Beck completed filling the tank with 100 gallons of water, we fashioned a ladle so we could reach into the bottom of the tank to determine how much if any product remained at the bottom of the tank.

STEP 7: The only product we were able to retrieve from the bottom of the tank was attached to the outside of the ladle and, after multiple attempts, we were unable to capture any undissolved product in the actual cup of the ladle. This showed us that minimal product remained undissolved at the bottom of the tank.

STEP 8: Dr. Nissen powered up the sprayer and sprayed the tank out over a 5-acre plot with no agitation running. After Dr. Nissen sprayed the entire solution from the tank, Dr. Beck dipped the ladle into the empty tank and could only retrieve the remaining foam at the bottom of the tank. There was no evidence of undissolved product in the bottom of the tank.

Conclusion: The new Alligare Propeller™ formulation dissolves in water in a comparable fashion to Clipper™, a competitive product formulated by Valent BioSciences, LLC. While no agitation was performed aside from the gentle agitation created by filling the tank with water, Alligare still recommends agitating the solution in the tank.

For more information, please contact:

Chuck Wilcox
Marketing Manager
cwilcox@alligare.com