

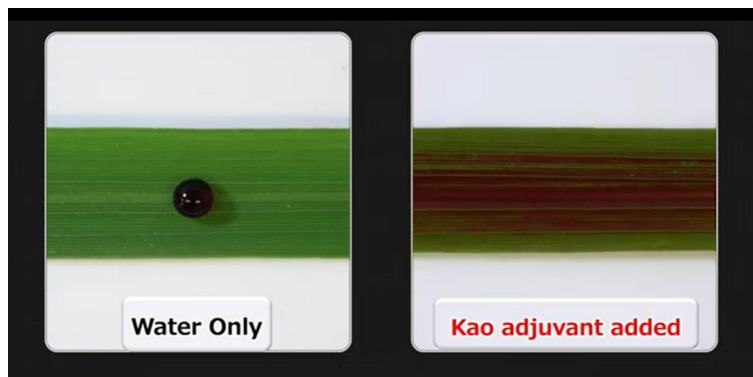
Pesticide Wettability Enhancement Technology

An adjuvant (functional adjuvant) technology that growers add when spraying pesticides. It enables the spray to wet and spread on leaf surfaces instead of being repelled, allowing maximum pesticide efficacy with the minimum necessary spraying rate. For drone-based spraying—expected to become more widespread and involving mist spraying from higher altitudes—an additional function has been incorporated to suppress droplet evaporation during spraying.

<Unique Points>

By reducing not only the surface tension at the spray solution–air interface but also the interfacial tension at the spray solution–leaf interface at the same time, it achieves breakthrough wetting and spreading performance for pesticides.

Wettability Evaluation of Kao Adjuvant



<https://www.youtube.com/watch?v=6IVlqjPDITw>

Even if the spray does not hit the pests directly, it spreads across the leaf surfaces and traps the pest.

Pest (Aphid) Coverage with Kao's Functional Spray Adjuvant

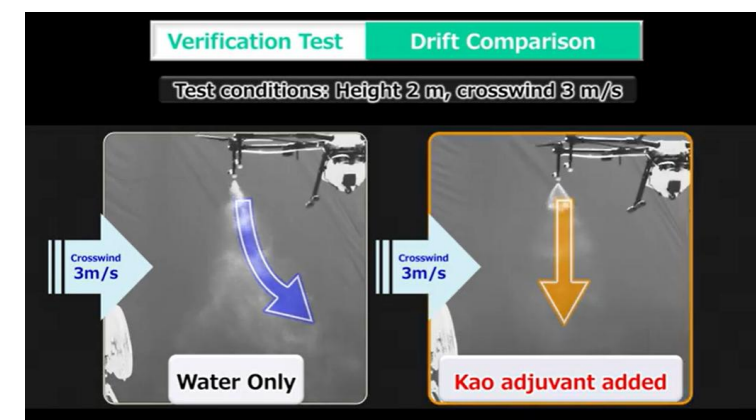


<https://www.youtube.com/watch?v=f6WKGXuwiSo>



For drone-based pesticide spraying—a leading example of smart agriculture—an added function suppresses the evaporation and drift of mist droplets, ensuring the pesticide reliably reaches the crops.

Effect of Kao Adjuvant for Drone to Control Dispersal



<https://www.youtube.com/watch?v=G7e9OXs6kuM>

Pesticide Wettability Enhancement Technology

<Key Benefits>

- Enables pesticides to be delivered efficiently to pests and plant pathogens.
- By wetting crops uniformly, it helps maximize pesticide efficacy with the minimum necessary spraying rate.
- By avoiding excessive pesticide use, it contributes to both environmental protection and increased food production.

<Link to Other Contents>

- Kao Chemicals Global Adjuvant (Japanese only)
<https://chemical.kao.com/jp/agrochemicals/adjuvants/technology/>
- Kao no Kao (Kao's research and technology website)
Why Kao in Agriculture? The Reasons Behind Our Strengths in the Field. (Japanese only)
https://www.kao.com/jp/kaonokao/dna/3_1/
- Japan Soap and Detergent Association (JSDA): What is a Surfactant? (Japanese only)
https://jsda.org/w/03_shiki/a_kaimen01.html

<Concerned Research Areas>

- Product Development Research: Industrial Chemicals <https://www.kao.com/global/en/innovation/research-development/product-development/chemicals/>
- Fundamental Research: Material Science <https://www.kao.com/global/en/innovation/research-development/fundamental/material-science/>