# MasterLock®

# QUESTIONS & ANSWERS

**MasterLock® adjuvant** contains a NPE-free nonionic surfactant and drift reduction technology specially formulated to enhance the efficacy of fungicide applications. It is an exceptional tank-mix partner and helps get more active ingredients into crops faster to slow or prevent disease development during critical treatment windows.

**If you would like more information, please contact your WinField United representative or reference the additional resources listed below.**

ADJUVANTS

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**How does MasterLock adjuvant benefit a fungicide application?**
MasterLock adjuvant combines the power of InterLock® technology with nonionic surfactant to optimize droplet size for reduced drift potential, deeper canopy penetration and better leaf coverage. Compared to applying fungicides alone, these features lead to faster, more effective disease control.

MasterLock adjuvant is especially beneficial for aerial applications when coverage is already limited by the amount of water used. It helps keep the small, valuable solution volume from drifting off course to help ensure more product makes it to the target.

**What is InterLock® technology, and why is it included in the formulation of MasterLock adjuvant?**
InterLock technology enables more spray droplets to stick to the target plant instead of bouncing off for optimal absorption. Its droplet-size optimization benefits ensure more active ingredient gets to and stays on target plants.

**Is MasterLock adjuvant only suited for fungicide applications?**
While MasterLock is known for being an exceptional fungicide tank-mix partner, it is also a versatile product that helps improve the delivery and efficacy of most insecticides and most herbicides. It can be tank mixed with these products with no compatibility issues.

**What are the typical use rates for MasterLock adjuvant?**
The typical MasterLock adjuvant use rate for ground applications is 6.4 fluid ounces per acre. For aerial applications, the recommended rate is 1 gallon per 100 gallons of spray solution but not less than 4 fluid ounces per acre.

**How can I justify the added cost of MasterLock adjuvant to the tank mix?**
As the cost of crop protection applications continues to rise, managing spray applications for maximum ROI is more important than ever. That's precisely why MasterLock adjuvant is a critical addition to fungicide applications.

Whether applying during conditions that are favorable for disease development or for plant health, time is of the essence to protect yield potential. MasterLock helps ensure that more of the fungicide's active ingredient gets onto and into target plants for increased action. It also helps the spray solution penetrate deeper into the crop canopy for top-to-bottom coverage, which is critical because most diseases start in the lower part of the canopy and migrate up the plant.

**Is MasterLock adjuvant safe to use in mid to late vegetative stages in corn?**
MasterLock adjuvant is formulated without nonylphenol ethoxylates (NPE), a component in some adjuvants that can lead to arrested ear development in corn when applied during vegetative growth stages. MasterLock adjuvant has been field tested and shows proven crop safety when applied with fungicide applications during vegetative growth stages.

**What data do you have to back this adjuvant's performance?**
Research teams at the WinField United Innovation Center in River Falls, Wisconsin, have been testing and collecting data on MasterLock adjuvant performance since its inception. This has led to years of data, images, and videos proving its impactful performance.

In addition to laboratory research, MasterLock adjuvant has been tested in field trials across the U.S. and Canada. Field data shows that MasterLock adjuvant improves fungicide spray coverage and penetration, leading to an average yield increase of 5.7 bushels per acre in corn[1] and 3.7 bushels per acre in wheat[2], compared to fungicide alone.

**What is the potential ROI impact of MasterLock® adjuvant on corn and wheat?**
MasterLock adjuvant with fungicide helps deliver an average yield **increase of 5.7 bu/A in corn**[1] and **3.7 bu/A in wheat**[2], compared to fungicide alone. When applied via drone, MasterLock adjuvant delivers 6.2x more spray into the canopy.[3]

[1] WinField United. 14 studies, eight states, all fungicides. 2012–2017.
[2] WinField United. 12 trials, five locations across the U.S. and Canada. 2019-2021.
[3] Based on one trial, replicated three times, at the Innovation Center in River Falls, WI in 2021.