

BRANDT[®]

Adjuvant Products Guide





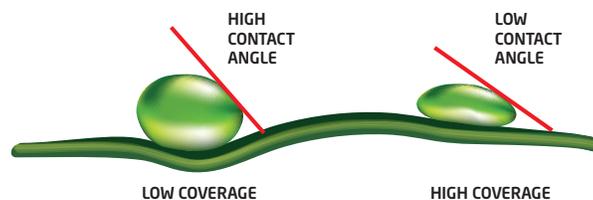
For over 60 years, BRANDT® has had an underlying common theme: focus on its customer's success.

Since 1953, BRANDT has manufactured nutritional, adjuvant, and plant protection solutions for agricultural and non-crop markets. Today, BRANDT brings these new technologies and innovative processes to consumers around the world, helping to make our customers more profitable and the world's food supply more secure.

What is an Adjuvant?

Adjuvants are materials added to a tank mix to aid or modify the action of an agrichemical or the physical characteristics of the mixture. Depending upon the treatment goals, adjuvants can advance the performance of the spray mixture by improving spreading, penetration, deposition, wetting, sticking, and moisture retention properties. Others can reduce drift, acidify or buffer the spray tank pH, condition spray water, and suppress or prevent spray tank foam.

The most common types of tank mix adjuvants are non-ionic surfactants (surface active agents). A surfactant will reduce the internal energy of a spray droplet that holds the droplet into a sphere and causes it to "bead up" on leaf surfaces. Surfactant molecules are water and oil soluble, which allows them to migrate to the surface of the liquid and break the hydrogen bond between water molecules. This flattens the droplet, allowing it to cover more of the leaf surface. This energy is referred to as surface tension and is measured in dynes/cm. The surface tension of water is generally recognized to be 72 dynes/cm. Most quality surfactants will reduce the surface tension of the spray solution to 20-30 dynes/cm.



CPDA Certified Products

BRANDT is a proud participant in the Council of Producers & Distributors of Agrotechnology Adjuvant Certification Program, which ensures that BRANDT adjuvants meet the quality and standards set by the CPDA. Products certified under this program must meet 17 separate benchmarks that are based on technologically and scientifically derived definitions and standards.



Surfactants

NON-IONIC SURFACTANTS (NIS)

BRANDT Magnify - CPDA Certified

Designed for all glyphosate, paraquat, and sulfonyl urea herbicide formulations, unique BRANDT MAGNIFY is a powerful combination of non-ionic surfactant and liquid fertilizer products that increases effectiveness of all formulations of these materials when used either alone or in herbicide tank mixes. APE free BRANDT MAGNIFY may be used on agricultural, aquatic, forestry, vegetation management, and other non-crop sites.

BRANDT Organics Ag Aide - OMRI Listed

Non-ionic surfactant that enhances the activity and performance of pesticides. Provides rapid wetting and improves absorption of the spray solution. 100% *Yucca schidigera* extract. *Previously sold under the brand name Green Cypress[®] Ag Aide.*

BRANDT Ultra 90

A 90% active, non-ionic surfactant that improves the wetting of foliage and enhances the efficacy of spray solutions. Contains a humectant to increase the drying time of the aqueous spray deposit by increasing its equilibrium water content.

BRANDT No Foam A

Premium 90% non-ionic spreader and activator. Low foaming formulation allows for increase performance of a wide range of pesticides applied to agricultural, aquatic, forestry, vegetation management, turf, horticultural, and other non-crop sites.

Surfact 50™ - OMRI Listed

Low-foaming non-ionic surfactant and acidifier that contains 21% *Yucca schidigera* extract. SURFACT 50 is an ideal adjuvant for use with insecticides that require a lower pH such as those containing natural pyrethrum.

BRANDT InSpray 90

BRANDT INSPRAY 90 is a general purpose, low foam non-ionic spreader/activator that helps maximize the effectiveness of insecticide, herbicide (aquatic and terrestrial), fungicide, defoliant and desiccant applications. It is designed for quick wetting, uniform droplet distribution and increased spray retention on leaf and stem surfaces.

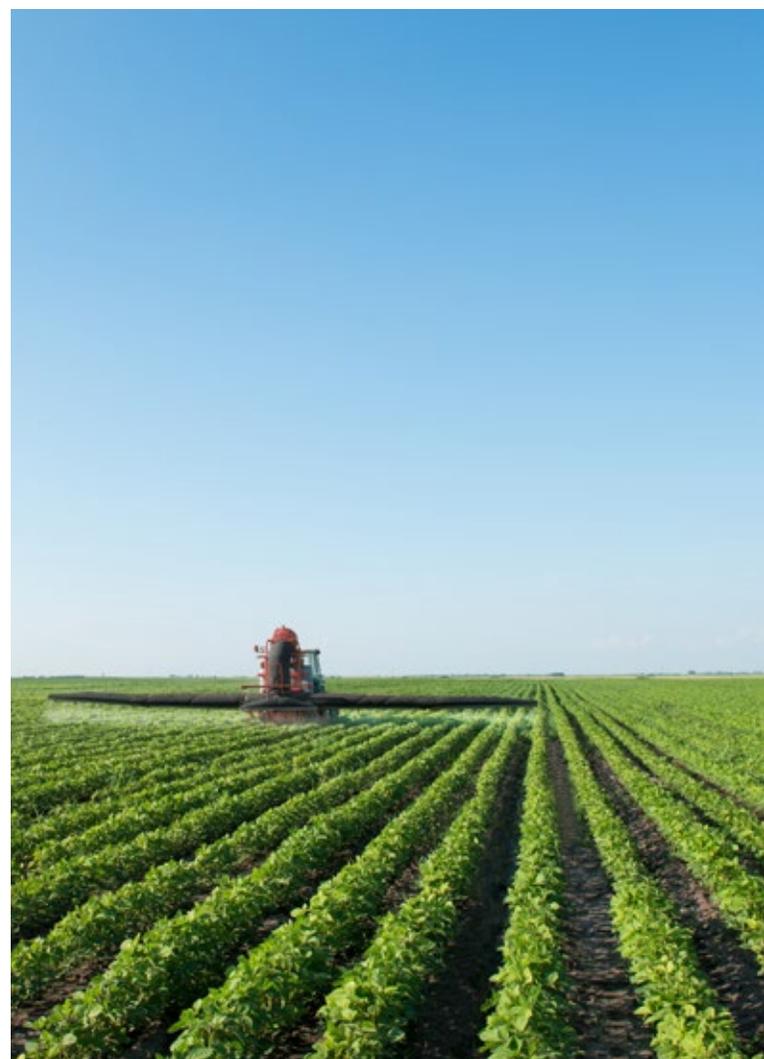
SILICONE BASED SURFACTANTS

BRANDT 719 Spreader - OMRI Listed

Proprietary non-ionic trisiloxane alkoxyate based wetting agent. It's unique trisiloxane surfactant and co-polymer formulation is designed to prevent quick evaporation and run-off problems associated with some organosilicone based wetting agents. BRANDT 719 SPREADER can be used at much lower rates than conventional non-ionic surfactants.

BRANDT Super Wetter - OMRI Listed

A 100% premium non-ionic organosilicone surfactant engineered to efficiently wet the target and improve coverage by imparting phenomenal spreading characteristics at only 0.02 to 0.15 wt%. Beneficial in low volume spray applications and hard to penetrate dense and hydrophobic surfaces.



Surfactants

VEGETABLE OIL CONCENTRATES (VOC)

BRANDT M.S.O. - CPDA Certified

A superior multi component modified vegetable oil concentrate developed as replacement for pesticide labels recommending either a NIS or COC. Designed to maximize the performance of crop protection chemicals by assisting penetration of the spray mix through the plant cuticle.

BRANDT Sidekick™

Designed to improve deposition and crop canopy penetration of the spray mix. BRANDT SIDEKICK is formulated to increase the coverage of pesticide sprays and to reduce evaporation of the spray mixture on plant surfaces after application. Well suited for aerial application and ground application using low volumes of water or where the vegetable oil concentrate acts as the carrier in the pesticide spray mixture.

CROP OIL CONCENTRATES

BRANDT Crop Oil - CPDA Certified

A 100% active crop oil concentrate used as a spreader/activator/penetrant to increase the foliar absorption of various herbicides and systemic fungicides. It is a blend of 83% petroleum oil and 17% non-ionic surfactant.



MULTI-FUNCTIONAL ADJUVANTS

BRANDT AdjuLock™

BRANDT ADJULOCK is a multi-purpose adjuvant that reduces driftable fines, and improves the wetting and spreading properties of the tank mix. It is formulated with a non-AMS water conditioner to enhance the performance and consistency of post-emergent herbicides by reducing or eliminating the tie-up of anionic herbicides with metal cations present in hard water such as calcium (Ca), magnesium (Mg) and iron (Fe). It may be used on agricultural, forestry, turf and ornamental, industrial and non-cropland sites.

BRANDT Insure®

Superior multi-purpose adjuvant that improves spray tank performance by conditioning hard water and acidifying alkaline water. BRANDT INSURE contains ammonium ions for improved translocation and improves compatibility of micronutrient tank mixes such as manganese (Mn) with glyphosate and other anionic herbicides that are deactivated by metal cations contained in hard water such as calcium, magnesium, and iron.

BRANDT Super 7 - CPDA Certified

Multi-function properties help control droplet uniformity, reduce amount of driftable fines, and reduce spray tank pH levels for improved pesticide uptake and efficacy. BRANDT SUPER 7 works as a surfactant, is an excellent penetrant, and is APE free.

BRANDT Torpedo® - CPDA Certified

A unique 100% active methylated vegetable oil, lecithin, and surfactant blend that can be used with pesticides that recommend a NIS, COC, or MSO. pH neutral BRANDT TORPEDO is suited well for systemic chemistries, while its multi-component design enhances penetration properties, offers superior spreading, improves deposition of spray droplets, and reduces the production of fine droplets which are susceptible to off target movement.

No Foam B

A specialized non-ionic surfactant blend designed as a spreader/activator/buffer for use on sensitive crops. Ideal for use with insecticides and fungicides when spray tank pH is a factor.

BRANDT A+™

BRANDT A+ is a proprietary non-ionic surfactant that has unique properties that reduce physical drift, and enhance spray application deposition and surface activity. It also promotes superior wetting, uptake and retention of many agrochemical sprays. BRANDT A+ may be used on agricultural, aquatic, forestry, turf and ornamental, and non-cropland sites.

Acidifier & Buffering Agents

BRANDT Indicate 5®

Unique adjuvant that contains a built in pH indicator, turning the spray tank water pink as soon as the optimum level of 4.5-5.5 is reached. It eliminates the need to test the water pH with any additional equipment. Multi-purpose BRANDT INDICATE 5 aids in wetting, spreading, and acidifying spray application

BRANDT pH Adjust

An extremely effective citric acid based acidifier and buffering agent specifically formulated for lowering the pH of spray solutions where phosphoric acid or other strong acids are undesirable.

Constant BUpH-er® - OMRI Listed

A true organic citric acid and organic vinegar buffer that will lower water pH while minimizing the potential for damage to equipment.

Drift Reduction Agents

38-F®

A liquid 32% active polyacrylamide polymer. Used as a drift retardant additive. It is designed for use with both ground and aerial equipment.

41-A®

A dry 30% active polyacrylamide, polysaccharide polymer. Used as a drift retardant additive. It is designed for use with both ground and aerial equipment.

BRANDT OnSite

A 1% polyvinyl polymer designed as a deposition aid and drift retardant. BRANDT ONSITE is compatible with all glyphosate formulations and most water soluble and wettable power pesticides, desiccants, and defoliants when applied by aerial application or standard ground equipment.

Water Conditioner

BRANDT Inhance

BRANDT INHANCE is a water conditioning agent designed for use with herbicides that recommend or require the addition of ammonium sulfate. It enhances herbicide performance by increasing uptake and reducing herbicide antagonism.

Irrigation Aids & Soil Penetrants

AquiMax®

AQUIMAX is a soil water management aid and polymer system that improves water infiltration, and the lateral movement of water through the soil profile. It helps facilitate soil wetting and quick penetration of irrigation/precipitation into weather hardened, arid soils. It is the first product to evenly distribute moisture retaining polymer to the root zone with standard irrigation.

Aqua-Pam™ PR 3005

A liquid concentrate retention aid that increases the available water content of soils, improving plant growth and reducing irrigation requirements. Reduces erosion, prevents crust formation, and improves general stabilization.

BRANDT SoilStay™

Effective irrigation aid used to manage irrigation-induced erosion and improve soil profile water infiltration.

Safe Zone 0-0-13

A liquid soil treatment used to disperse accumulated salts through the soil profile, reducing soluble salts in the root zone. Can be used through all types of irrigation systems.

Colorants

BRANDT Big Foot®

A tank-mix blue colorant designed as a temporary spray pattern indicator for use on golf courses, landscape turf, and other non-crop use sites.

BRANDT Big Foot SS

A concentrated tank-mix blue colorant designed as a temporary spray pattern indicator for use on golf courses, landscape turf, and other non-crop use sites.

BRANDT Mark-It-Red

A concentrated red colorant designed as a temporary spray indicator primarily for use with herbicides. Replaces rhodamine red dyes. Also used to dye fertilizer solutions.



Hydrology Drip Line Maintenance Aids

BioSide™ HS 15% - OMRI Listed

BIOSIDE HS 15% is a peroxyacetic acid-based microbiocide. It disinfects and sanitizes water and controls bacteria, slime, odor and algae.

BRANDT Drip-Rite® 1000

BRANDT DRIP-RITE 1000 is designed for use as an initial system flush that clears mineral deposits caused by hard water.

BRANDT Drip-Rite 2500

BRANDT DRIP-RITE 2500 is used as a preventative treatment for mineral scale build up.

BRANDT Drip-Rite 3000

BRANDT DRIP-RITE 3000 is a concentrated material used as a preventative treatment for mineral scale build up.

BRANDT Drip-Rite 6000

BRANDT DRIP-RITE 6000 eliminates and prevents rust in irrigation systems, sand media filters and wells.

ClearDrip®-O - OMRI Listed

CLEAR DRIP-O is designed to keep irrigation lines clean and free of mineral deposits. Regular application helps protect irrigation system and minimize costly repairs.

Drip-Rite® 4000

DRIP-RITE 4000 is used to suppress odors and toxic gas in ponds, and to control algae and bacteria in reservoirs, ponds and irrigation water supplies.

Utility Adjuvants & Application Aids

BRANDT Insect Bait

Corn derived, proteinaceous liquid that enhances the effectiveness of certain agricultural insecticide applications.

BRANDT Odor-Mask

A concentrated odor masking agent containing methyl salicylate (oil of wintergreen).

BRANDT Organics Defoamer - OMRI Listed

Premium silicone based anti-foaming agent designed to prevent foam formation or defeat existing foams in pesticide spray solutions

BRANDT Pesticide Equipment Cleaner

A highly effective all-purpose liquid tank and equipment cleaner used to decontaminate spray rigs, storage tanks, etc. Use before changing from one agricultural chemical to another and before storing equipment.

BRANDT Tripleline Defoamer

A multi-component defoamer that effectively eliminates or suppresses foam in the spray tank.

Not all products listed in this catalog are available for sale in all U.S. states. For information regarding product availability in your area, please contact Brandt Consolidated, Inc. The marks BRANDT, Big Foot, Drip-Rite, Indicate 5, Insure and Torpedo are registered trademarks of Brandt Consolidated, Inc. All other trademarks, product names and company names that appear on this document are the property of their respective owners or licensees, who may or may not be affiliated with, connected to, or sponsored by Brandt Consolidated, Inc.

Tank Mixing Sequence

Add different formulation types in the sequence indicated below.* Allow time for complete mixing and dispersion after addition of each product.

- Water soluble bags
- Water dispersible granules
- Wettable powders
- Water based suspension concentrates
- Water-soluble concentrates
- Oil based suspension concentrates
- Emulsifiable concentrates
- Adjuvants, surfactants and oils
- Soluble fertilizers
- Drift retardants

*Unless otherwise specified by manufacturer directions for use or by local experience.

Spray Tank Cleanout

Prior to application, always start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove or effect sprayer efficiency.



BRANDT Adjuvants Quick Reference Guide

Product	Use Rate	Description	Acidifier Buffer	Deposition Aid	Drift Control	Penetrant	Spreader	Sticker	Water Conditioner	Utility	OMRI Listed
38-F	3-5 oz/100 gal	32% active liquid polyacrylamide polymer		■	■					■	
41-A	2-5 oz/100 gal	30% active dry polyacrylamide/polysaccharide polymer		■	■					■	
BRANDT 719 Spreader	6-12 oz/100 gal	OMRI Listed non-ionic wetting agent, spreader, and penetrant				■	■				■
BRANDT A+	1/2-3 pt/100 gal	90% active non-ionic spreader, activator, and drift reduction agent		■	■	■	■				
BRANDT AdjuLock	5 pts/100 gal	Non-AMS water conditioner & drift reduction agent		■	■		■		■		
BRANDT Crop Oil	1-4 pts/100 gal	83%/17% crop oil concentrate				■	■				
BRANDT Indicate 5	5-32 oz/100 gal	83% non-ionic surfactant containing a pH indicator	■				■		■		
BRANDT Inhance	3-5 qt/100 gal	Liquid AMS water conditioner							■		
BRANDT Insect Bait	2-8 pts/acre	Enhances effectiveness of certain ag insecticides								■	
BRANDT InSpray 90	1/2-4 pts/100 gal	90% active non-ionic spreader & activator					■				
BRANDT Insure	1-4 pts/100 gal	Conditioner, acidifier, compatibility agent	■				■		■	■	
BRANDT Magnify	1-4 qts/100 gal	APE free, water soluble, alkyl polyglycoside, AMS blend					■		■	■	
BRANDT M.S.O.	1/2-2 pts/100 gal	100% active modified vegetable oil concentrate		■		■	■				
BRANDT No Foam A	1/2-2 pts/100 gal	90% active non-ionic spreader/activator					■				
BRANDT OnSite	1-5 qts/100 gal	1% polyacrylamide, deposition aid and drift retardant		■	■					■	
BRANDT Organics Ag Aide	4-16 oz/100 gal	OMRI Listed non-ionic, 100% <i>Yucca schidigera</i> extract surfactant				■	■				■
BRANDT Organics Defoamer	1/2-2 oz/100 gal	OMRI Listed antifoam/defoaming agent								■	■
BRANDT Organics S-K-H Sticker	3/4-2 lbs/100 gal	OMRI Listed premium dry formulated sticker						■			■
BRANDT pH Adjust	1/2-1 pt/100 gal	Citric acid based acidifier/buffering agent	■							■	
BRANDT Sidekick	1-2 qts/5-20 gal	Emulsified 93% vegetable oil concentrate derived from cottonseed		■		■	■	■			
BRANDT Super Wetter	3-6 oz/100 gal	Premium 100% organosilicone super wetter				■	■				■
BRANDT Super 7	1/2-2 pts/100 gal	Non-ionic, APE free, deposition aid, acidifier, penetrant	■	■	■	■	■				
BRANDT Torpedo	1/2-2 pts/100 gal	pH neutral deposition aid & surfactant		■	■	■	■				
BRANDT Tripleline Defoamer	1/2-2 oz/100 gal	Concentrated antifoam/defoaming agent								■	
BRANDT Ultra 90	1/2-4 pts/100 gal	90% active non-ionic surfactant & humectant					■				
BRANDT Umbrella	4-16 oz/acre	100% active non-ionic spreader/terpene resin sticker					■	■			
Constant BUph-er	1/2-2 qts/100 gal	OMRI Listed, citric acid based	■							■	■
No Foam B	1/2-3 pts/100 gal	Non-ionic surfactant and buffer blend	■				■				
Surfact 50	1/2-4 pts/100 gal	OMRI Listed non-ionic surfactant & acidifier	■				■				■

*Always read and follow label instructions

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