2021 NATIONAL PRODUCT GUIDE
Crop Protection & Yield Enhancement Solutions
The industry’s most comprehensive product portfolio providing solutions:

FOR ALL YOUR CROP PROTECTION NEEDS

IN ALL MAJOR CROPS... AND MORE

ACROSS THE US

TABLE OF CONTENTS

- Insecticides............................6
- Herbicides.............................11
- Fungicides..............................17
- Nematicide...............................21
- PGR/Harvest Aids........................23
- Rice
- Pome
- Soybeans
- Cereals
- Cotton
- Corn
- Potatoes
- Tree Nuts

Farmers Spoke. We Delivered.

No one knows agriculture’s biggest challenges better than those who tackle them every day. So when we heard farmers’ frustration with crop protection packaging, we knew we had to go straight to the source to create a solution that met their needs.

We met with farmers around the world in their fields and in our labs to hear their input and act on their insight. By listening, we were able to make our packaging easier to handle, pour and store. Today, we’re proud to release our new line of packaging made by farmers, for farmers. New packaging will be rolled out in 2021.

Key Benefits & Features

- Quick-Open Cap
  Sufficient space between cap and handle for easy opening, wide neck means it’s easier to pour and rinse. No seal means less chance for contamination.

- Non-Slip Grip
  Nodules on handle and base of the jug improve grip for shaking/measuring/pouring/rinsing, especially with wet gloves.

- Easy-Hold Handle
  Larger, flexible handle with comfortable hand grip when measuring and pouring. Plenty of space for a gloved hand.

- Smooth-Pour Shape
  Rounded corners and sloping shoulders mean it’s easier to pour quickly.

- Clear-View Strip
  Transparent view strip with scale to easily see how much product is left in the jug.
We Are Excited To Introduce A Renewed Promise To Listen > Learn > Deliver.

We understand how hard this business is, and we want to make things simpler. We build personal, lasting relationships with our partners because we also know that farming is more than just a business—it's a way of life.

Talk to us, because our best solutions come when we take your input and learn from your experience. That's how we transform the largest group of actives in the world into the products you need.

We Listen > Learn > Deliver. It's as simple as that.

What it means to Listen > Learn > Deliver.

Listen
Listening is the starting point of everything we do— it’s an active experience that requires skill, thought and intention. It means consistently seeking opportunities to listen to customers, experts and colleagues and considering the viewpoints and opinions of others—not just our own.

Learn
Integrating the information and knowledge we acquire externally with the expertise and know-how we bring to the table. Transforming insights into concrete ideas.

Deliver
Delivering is in our DNA— harnessing our get-it-done approach to specifically respond to customer needs. We strive to deliver after first listening and learning.

Did You Know Product Types At ADAMA Have Specific Colors?

Continuing with the theme of simplicity, each sector has a specific color to make sure it’s easily recognizable. Throughout the guide, you’ll see each section has personalized color schemes.

Here’s a closer look at each sector:

- **Insecticide** — black symbolizes death of yield-robbing insects.
- **Herbicide** — brown indicates the control of weeds when they start to wilt.
- **Fungicide** — green illustrates healthier crops due to disease prevention and control.
- **Nematicide** — purple represents powerful control of parasitic nematodes.
- **PGR/Harvest Aid** — orange denotes optimized plant growth and quality yields.
**Fulfill® / Pyremozine**
Fulfill has a unique mode of action that inhibits feeding one to two hours after ingestion & results in aphid death. This systemic insecticide also has excellent activity against psyllid & other pests & helps prevent the spread of plant viruses.

**Container Size:** 27.5 oz

**Silencer® VXN / Lambda-Cyhalothrin**
Silencer VXN is the only lambda-cyhalothrin brand with a ‘Caution’ signal word that delivers extended residual while rapidly controlling major economic pests on a wide variety of crops. Silencer VXN improves the user experience by simplifying handling & tank mixing.

**Container Size:** 4 x 1 gal, 125 gal

**Trigard® / Cyromazine**
Trigard penetrates leaves & controls leafminer larvae before they cause damage. Trigard is compatible with existing IPM programs.

**Container Size:** 17.955 lbs (18 x 6 x 2.66 oz)

**DID YOU KNOW?**
- A pH of 5 is key for optimum control with Apollo.
- Unlike other lambda-cy products, Silencer VXN has no odor.
- In the right conditions, Diamond can help with a yield bump in cotton.
- Always use a penetrating surfactant with Fulfill to get maximum efficacy.
**Essential**

**Acephate 90 Prill & 97 WDG / Acephate**
Acephate provides consistent, economical control of thrips, plant bugs, aphids, fleahoppers, stink bugs & whiteflies.
*Container Size: 8 x 5 lb, 2 x 20 lb, 2 x 10 lb*

**Alias® 4F / Imidacloprid**
Alias 4F is a unique 4-lb formulation that provides long-lasting, economic control of whiteflies, aphids, glassy-winged sharpshooters & many more. It is labeled for potato seed-piece or foliar applications.
*Container Size: 4 x 1 gal, 4 x 1 qt*

**Fanfare® ES & EC / Bifenthrin**
Fanfare ES & Fanfare EC provide quick knockdown of a broad range of soil & foliar pests. Fanfare ES, a low VOC (volatile organic compound) formulation, is an enhanced solution that performs like an EC with improved environmental impact & handling ease.
*Container Size: 4 x 1 gal, 270 gal*

**Farewell® / Pyriproxyfen**
Farewell controls whiteflies & other pests while remaining soft on pollinators & other beneficial insects.
*Container Size: 4 x 1 gal*

**Pitch® 0.86 EC & 35WP / Pyriproxyfen**
Pitch offers excellent control of scale.
*Container Size: 4 x 1 gal (0.86 EC), 4 x 10 x 5oz (35WP)*

**Silencer® / Lambda-Cyhalothrin**
Silencer provides fast knockdown activity & is labeled on more than 50 crops.
*Container Size: 4 x 1 gal, 4 x 1 qt, 260 gal*

**Terva® 35WP / Pyriproxyfen**
Terva provides excellent control of scales. Labeled in California, Oregon, Washington, Michigan & Utah.
*Container Size: 4 x 10 x 4 oz*
HERBICIDES
THE SUN HAS SET ON WEEDS
**Cotoran® 4L / Fluometuron**

Pre-emergence — Cotoran 4L combines improved crop safety & a broader spectrum of weed control to be the preferred pre-emergence broadleaf herbicide in cotton.

Container Size: 2 x 2.5 gal, 125 gal

**Postscript™ / Imazamox™**

Post-emergence — Postscript provides excellent control of weedy rice, barnyardgrass & most other weeds in the FullPage™ rice cropping solution, as well as rotational plant-back flexibility.

Container Size: 2 x 1 gal

**Preface™ / Imazethapyr™**

Pre- & early post-emergence — Preface provides excellent control of the most common & troublesome weeds, including red/weedy/feral rice, when used in the FullPage rice cropping solution.

Container Size: 2 x 1 gal

**Pummel® / Imazethapyr + Metolachlor**

Pre- & early post-emergence — With two modes of action & an extensive weed control spectrum, Pummel provides an alternative in the fight to control weeds that are resistant to PPO, glyphosate, HPPD, or triazine herbicides.

Container Size: 2 x 2.5 gal, 270 gal

**Torment® / Imazethapyr + Fomesafen**

Pre- & early post-emergence — Torment controls 65 grass & broadleaf weeds, including those resistant to glyphosate, HPPD or triazine chemistries. This herbicide provides up to six weeks of residual control.

Container Size: 2 x 2.5 gal

*Following many years of continuous use of this product and chemically related products, weed biotypes have been reported which cannot be effectively controlled by Preface or Postscript and related herbicides. Any weed population may contain or develop plants naturally resistant to Preface and other Group 2 herbicides (ALS-inhibitors).

**Arrow® ZEC / Clethodim**

Post-emergence — Arrow ZEC controls the most troublesome annual & perennial grass weeds in a wide range of crops.

Container Size: 4 x 1 gal

**Atrazine 4L & 90DF / Atrazine**

Pre-emergence — Atrazine combines improved crop safety & a broader spectrum of weed control to be the preferred pre-emergence broadleaf herbicide in corn & sorghum.

Container Size: 2 x 2.5 gal, 270 gal, Bulk, 25 lb (90DF)

**Defy® Amine 4 / 2,4-D**

Burdown, pre- & post-emergence — Defy Amine 4 is a non-volatile, premium formulation of 2,4-D that is labeled for use on a wide range of crops to provide selective control of many broadleaf weeds.

Container Size: 2 x 2.5 gal, 270 gal

**Defy® LV-4 & LV-6 / 2,4-D**

Burdown, pre- & post-emergence — Defy LV-4 & LV-6 are low volatile 2,4-D esters formulated for dependable weed control under a wide range conditions.

- Defy LV-4 mixes well with liquid fertilizers & offers better weed control than 2,4-D amine formulations.
- Defy LV-6 has a high-load formulation that allows for efficient shipping & storage & is compatible with many fertilizer & oil carriers.

Container Size: 2 x 2.5 gal, 270 gal

**Direx® 4L / Diuron**

Pre- & post-emergence — Direx 4L provides unmatched versatility, value & long-residual weed control, including control of many species that are resistant to glyphosate.

Container Size: 2 x 2.5 gal, 270 gal
**Essential**

**Fugitive® / Oryzalin**

*Post-emergence* — Fugitive offers reliable pre-emergence control of grasses & small-seeded broadleaf weeds in vineyards, orchards & row crops.

*Container Size:* 2 x 2.5 gal

**Galigan® 2E / Oxyfluorfen**

*Pre- & post-emergence* — Galigan 2E is a powerful residual broadleaf herbicide & an ideal tank-mix partner with glyphosate or paraquat for long-lasting control of broadleaf weeds and many grasses.

*Container Size:* 2 x 2.5 gal

**Glory® / Metribuzin**

*Pre- & post-emergence* — Glory controls a wide spectrum of grasses & broadleaf weeds that can include those resistant to glyphosate, ALS, HPPD & PPO herbicides.

*Container Size:* 4 x 5 lb, 2 x 25 lb

**Glory® 4L / Metribuzin**

*Pre- & post-emergence* — Glory controls a wide spectrum of grasses & broadleaf weeds, all in a dust-free, easy-to-mix liquid formulation.

*Container Size:* 2 x 2.5 gal, 270 gal

**Impose® / Imazapic**

*Post-emergence* — Impose provides highly effective & selective control of nearly 40 grasses, sedges & broadleaf weeds.

*Container Size:* 2 x 1 gal

**Karmex® DF / Diuron**

*Pre- & post-emergence* — Karmex DF is a reliable herbicide that offers long-term residual control of a wide range of tough grasses & broadleaf weeds.

*Container Size:* 10 x 5 lb, 25 lb

**Parallel® / Metolachlor + Safener**

*Pre- & post-emergence* — Parallel is designed for corn & provides outstanding control of grasses & small-seeded broadleaf weeds. It is ideal as a layered residual with pre- or post-emergence use & can be tank mixed with a variety of broadleaf herbicides for broad-spectrum weed control.

*Container Size:* 2 x 2.5 gal, 270 gal, Bulk

**Parallel® PCS / Metolachlor**

*Pre- & post-emergence* — Parallel PCS is designed for corn & provides outstanding control of grasses & small-seeded broadleaf weeds. Post-emergence is for corn and soybeans only.

*Container Size:* 2 x 2.5 gal, 270 gal
**Parallel® Plus / Metolachlor + Safener + Atrazine**

*Pre- & post-emergence* — Parallel Plus combines two of the best residual herbicides in corn for outstanding, economical control of a broad spectrum (or wide array) of weed species & is ideal for use in most herbicide trait systems.

*Container Size:* 2 x 2.5 gal, 270 gal, Bulk

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**Pruvin® 25DF / Rimsulfuron**

*Pre- & post-emergence* — Pruvin 25DF controls many troublesome grass & broadleaf weeds in potatoes, tomatoes & several other fruit & nut crops.

*Container Size:* 10 x 20 oz

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**Tailwind® / Metolachlor + Metribuzin**

*Pre-emergence* — With two modes of action, Tailwind is formulated to deliver early-season to manage many grasses and broadleaf weeds, including PPO, glyphosate, HPPD and ALS inhibiting herbicides.

*Container Size:* 2 x 2.5 gal, 260 gal

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**Triflurex® HFP / Trifluralin**

*Pre-plant incorporated* — Triflurex HFP is a selective herbicide for the control of annual grasses & small-seeded broadleaf weeds in many crops.

*Container Size:* 2 x 2.5 gal, 270 gal, Bulk

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**Zurax® L / Quinclorac**

*Pre-emergence, delayed pre-emergence, post-emergence* — Zurax is excellent as a foundation as well as supplemental & residual tank-mix partner in rice for control of barnyardgrass & broadleaf weeds.

*Container Size:* 2 x 1 lb

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**FUNGICIDES**

**DISEASE HAS NOWHERE TO HIDE**
**Fungicides**

**Bravo Ultrex® / Chlorothalonil**
Bravo Ultrex is designed to adhere tightly to the leaf’s surface, sticking & staying where it’s sprayed for coverage you can count on, with good leaf adherence and overhead irrigation. Plus, the convenient water-dispersible granule formulation makes Bravo Ultrex easy-to-store & easy-to-use.

*Container Size: 27.4 lb*

**Bravo Weather Stik® / Chlorothalonil**
Bravo Weather Stik is a broad-spectrum foliar protectant fungicide labeled for use on fruits & vegetables. It has a unique & patented formulation that sticks & stays on the plant surface longer than any other preventative fungicide available.

*Container Size: 2 x 2.5 gal, Bulk*

**Bravo® ZN / Chlorothalonil**
Bravo ZN offers potato growers control they can count on. Zinc is incorporated into this formulation as a micronutrient, which helps crops meet their full yield potential.

*Container Size: Bulk*

**Captan Gold® 80WDG & 4L / Captan**
Captan Gold is a broad-spectrum, non-systemic contact fungicide that acts immediately to control fungal spores. Captan has more than 50 years of use with no documented case of resistance, making it an excellent tool for IPM programs.

*Container Size: 8 x 6.25 lb, 20 lb, 30 lb (80WDG), 2 x 2.5 gal (4L)*

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**Mastercop® / Copper Sulfate Pentahydrate**
Mastercop is the only true copper fungicide/bactericide solution with BioRetain™ technology. With broad-spectrum protection & multi-site activity, it is ideal for Integrated Pest Management programs.

*Container Size: 2 x 2.5 gal*

**What is BioRetain?**
BioRetain is a next-generation formulation technology that delivers a smaller copper particle size with immediate bio-availability. This means better spray coverage with uniform & quick distribution of copper metallic ions as well as an improved uptake system, including enhanced leaf adhesion, penetration, bio-availability, & retention within the leaf cuticle.

**Use Mastercop to avoid hassles like:**
- Clogging nozzles & filters
- Settling in the tank, creating sludge
- Coating & staining of fruit & leaves

**VISIT MASTERCOP.INFO TO LEARN MORE**

**Premier Benefits**
- Uniform & quick distribution of copper
- Improved uptake & subcuticular penetration
- Enhanced leaf adhesion, retention & residual activity
- Superior crop safety
- Easy mixability & tank compatibility
- Reduced risk of soil toxicity
Bumper 41.8 EC® / Propiconazole
Bumper offers preventative & curative broad-spectrum disease control of leaf diseases on multiple crops including corn, wheat & soybeans.
Container Size: 2 x 2.5 gal

Harbour® / Ag Streptomycin Sulfate
Harbour controls fire blight, bacterial stem & leaf rot, bacterial spot, bacterial blight, bacterial wilt, crown gall, potato soft rot & blackleg, tobacco blue mold & wildfire.
Container Size: 10 x 2 lb

Incognito® 4.5 F & 85 WDG / Thiophanate-Methyl
Incognito is a systemic, preventative & curative broad-spectrum fungicide for control of yield-robbing plant diseases.
Container Size: 2 x 2.5 gal, 270 gal, 5 lb (85 WDG)
NIMITZ® / Fluensulfone

NIMITZ is a highly effective non-fumigant nematicide that provides selective control of plant-parasitic nematodes (PPN). By halting nematode feeding & reducing root damage & resulting pathogen infection, NIMITZ helps enhance root health & ongoing plant development.

Container Size: 2 x 2.5 gal

THE POWER OF NIMITZ

In addition to efficacious control of PPN, NIMITZ offers simple application features & improved handling characteristics.

NIMITZ promotes a healthier crop by protecting roots from damaging nematodes & preserving beneficial nematodes, fungi & other microbes that enhance soil health. Under PPN pressure, NIMITZ maximizes crop yield & quality potential, protecting growers’ bottom line.

Premier Benefits

• Superior protection against yield-robbing PPN
• Better root health due to nematode control
• Lower human exposure risk
• Easier to handle and apply product

Simple to Use

As a non-restricted use pesticide, NIMITZ removes the complexity of traditional fumigant nematicide products. Easy to apply through drip-injection & broadcast or banding with mechanical incorporation, NIMITZ requires no buffers, no fumigant management plans.

Improved Safety

With the least restrictive signal word of ‘Caution’ on its label, NIMITZ replaces other chemical nematicides with ‘Danger’ hazard classifications. As a non-gas formulation, NIMITZ reduces human & environmental impact, decreases the risk of worker exposure and by stander & greatly minimizes complex fumigant nematicide use regulations.

Highly Effective

NIMITZ is a true nematicide & selectively kills PPN, which can significantly improve root health & ongoing plant development. NIMITZ has consistently demonstrated equal or better nematode control to benchmark commercial standards by controlling the PPN.

VISIT NIMITZWORKS.INFO TO LEARN MORE
**HARVEST AIDS**

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### Essential

#### Ethephon 2SL™ / Ethephon

**Growth Regulator** — Ethephon 2SL promotes earlier ripening and maturation of a variety of fruit & nut crops. Ethephon accelerates ripening & drop of unharvested fruit.

**Container Size:** 4 x 1 gal, 2 x 2.5 gal

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#### Klean-Pik® 500 SC / Thidiazuron

**Defoliant** — Powerful defoliant that offers excellent tank-mix flexibility with boll openers like Setup®

**Container Size:** 4 x 1 gal

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#### Redi-Pik® 1.5 EC / Thidiazuron + Diuron

**Defoliant** — Same great defoliation as Klean-Pik with faster action & reduced regrowth.

**Container Size:** 2 x 2.5 gal

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#### Setup 6L / Ethephon

**Boll Opener** — Setup 6L opens nearly 98% of mature, unopened bolls within 7 to 14 days of treatment to help boost overall yield & harvestability.

**Container Size:** 2 x 2.5 gal, 270 gal

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**NOTES**
ALWAYS READ AND FOLLOW LABEL DIRECTIONS.

Atrazine 4L, Atrazine 90DF, Chlorpyrifos 4E AG, Diazinon 50W, Diazinon AG500, Fanfare EC, Fanfare ES, Parallel Plus, Silencer, Skyraider, Silencer VXN and Vulcan are Restricted Use Pesticides.

Not all ADAMA products are registered in all states or counties. Alias®, Apollo®, Arrow®, Bravo Weather Stik®, Bravo Ultrex®, Bravo® ZN, Captan Gold®, Cotoran®, Defy®, Diamond®, Direx®, Fanfare®, Farewell®, Fugitive®, Fulfill®, Galigan®, Glory®, Harbour®, Impose®, Incognito®, Karmex®, Klean-Pik®, Mastercap® (OMRI-listed®), NIMITZ®, Parallel®, Pitch®, Postscript™, Preface™, Pruvío®, Pummel®, Redi-Pik®, Setup® 6L, Silencer®, Tailwind®, Terva®, Torment®, Triflurex®, Trigard®, and Zurax® are trademarks or registered trademarks of an ADAMA Group Company. OMRI Listed® is a registered trademark of the Organic Materials Review Institute.

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