



# SPECIALTY & REGIONALLY GROWN CROP RESOURCE GUIDE

**DRY BEANS**  
**GRAIN SORGHUM**  
**TOMATO**  
**SUNFLOWER**

Discover trusted insight and proven agronomic support for your specialty and regionally grown crop acres.

This guide brings together our top recommendations, product solutions, and regionally relevant strategies — all in one place.

**Use the page numbers to the right to jump straight to the sections you need. From start to finish, it's built to deliver an answer for every acre.**

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## 2024 DRY BEANS EARLY POSTEMERGENCE PROGRAM

Simplot Grower Solutions has the personnel, equipment, products, and expertise to help protect your crop and maximize yield potential. The early season postemergence recommendations below combine the best pesticide applications and deliver critical nutrition to increase early season growth and vigor by protecting the seedling against both abiotic stresses and pests necessary to drive yield.



**12 oz/A**

Vamos® is a broadleaf herbicide containing fomesafen, which provides contact and residual control in soybeans and potatoes. Vamos is a PPO herbicide which can provide excellent control on many weeds including those which are glyphosate resistant.



**16 oz/A**

Avatar™ is a versatile herbicide for control of grasses in a wide variety of crops. Driven by clethodim, Avatar is a great tool for volunteer corn and glyphosate resistant grasses.



**0.25% v/v or 1 qt/100 gallons**

Valkarie™ is an NPE free non-ionic surfactant, formulated to improve deposition, spreading, and adhesion of a spray solution. Valkarie is able to soften a leaf's waxy cuticle, leading to increased penetration and movement to the site of action.



**1 - 4 qts/A**

TetRx® is an innovative, complete nutritional package backed by Innvictis BioScience's VaRx Technology. The VaRx Technology promotes root development and growth, nutrient absorption, and helps mitigate stresses. Another unique and key component of the TetRx formulation, is in its ability to help solubilize applied nutrients or nutrients in the soil, helping to increase their availability and uptake.



**2 oz/A**

MavRx® is an innovative and unique blend of plant growth regulators backed by Innvictis BioScience's VaRx Technology. IBA and kinetin are plant growth regulators that promote root development, growth, and proliferation, as well as increase vegetative growth. The VaRx technology also stimulates root and shoot growth, improves nutrient absorption, and helps mitigate environmental or herbicide stresses.





Innvictis Crop Care® offers a variety of products for use on Grain Sorghum at every stage in the growing process. Innqvictis Crop Care strives to provide an answer for every sorghum acre by offering products at every stage in the growing cycle from burndown through harvest.

PRODUCT	AI	MOA	DESCRIPTION	COMPARABLE PRODUCT	USE RATE	TARGET PEST
BURNDOWN						
<b>DEVOUR®**</b>	<b>Paraquat:</b> 3 lb/gal	<b>22:</b> Photosystem I Electron Diverter	Non selective, broad spectrum burndown herbicide.	Gramoxone®	1.3 – 2.7 pts/A	Grass and Broadleaves
<b>VARSITY®</b>	<b>Flumioxazin:</b> 51%	<b>14:</b> PPO Inhibitor	Broad spectrum herbicide for spring and fall burndown programs.	Valor® SX	2 – 3 oz/A	Broadleaves
<b>VARSITY® SC</b>	<b>Flumioxazin:</b> 4 lb/gal	<b>14:</b> PPO Inhibitor	Broad spectrum herbicide for spring and fall burndown programs.	Valor® EZ	2 – 3 oz/A	Broadleaves
<b>VISOR® S-MOC ATZ*¹</b>	<b>S-metolachlor:</b> 2.4 lb/gal <b>Atrazine:</b> 3.1 lb/gal <b>Safener</b>	<b>15:</b> Very Long Chain Fatty Acid Inhibitor <b>5:</b> Photosynthesis Inhibitor Site A	Flexible foundation herbicide containing s-metolachlor, atrazine and, safener.	Bicep® II Magnum	0.7 – 2.58 qts/A²	Grass and Broadleaves
BURNDOWN, PREEMERGENCE, POSTEMERGENCE						
<b>ATRA-V™ 4L*</b>	<b>Atrazine 4L:</b> 4 lb/gal	<b>5:</b> Photosynthesis Inhibitor Site A	Standalone atrazine based herbicide that can be used on sorghum.	Aatrex® 4L	Up to 4 pts/A	Broadleaves
<b>RAVINE®*¹</b>	<b>R-metolachlor:</b> 1.7 lb/gal <b>Mesotrione:</b> 0.218 lb/gal <b>Atrazine:</b> 1.66 lb/gal <b>Safener</b>	<b>15:</b> Very Long Chain Fatty Acid Inhibitor <b>27:</b> HPPD Inhibitor <b>5:</b> Photosynthesis Inhibitor Site A	Ravine contains a trifecta of 3 proven active ingredients: metolachlor, mesotrione and atrazine are combined to provide superior weed control in grain sorghum.	Lexar® EZ	1.5 – 3 qts/A	Grass and Broadleaves
<b>STAVE®</b>	<b>Fluroxypyr:</b> 2.8 lb/gal	<b>4:</b> Synthetic Auxin	This selective, post-emerge fluroxypyr herbicide controls annual and perennial broadleaf weeds in grain sorghum.	Starane® Ultra	0.4 pts/A	Broadleaves
<b>STREVIN™ 2EC</b>	<b>Carfentrazone-ethyl:</b> 2 lb/gal	<b>14:</b> PPO Inhibitor	Versatile tool for preplant burndown, post emergence weed control and preharvest defoliation in a broad spectrum of crops.	Aim® EC	0.5 – 1 oz/A	Broadleaves
<b>UNDERCOVER®</b>	<b>Mesotrione:</b> 4 lb/gal	<b>27:</b> HPPD Inhibitor	Mesotrione based herbicide for pre or post-emerge control of broadleaf weeds in sorghum.	Callisto®	3 – 6.4 oz/A	Broadleaves
<b>VERITAS® LV</b>	<b>DGA Dicamba:</b> 4 lb/gal	<b>4:</b> Synthetic Auxin	Dicamba-based water-soluble herbicide for control and suppression of many annual, biennial, and perennial broadleaf weeds. Great option for pre-plant weed control and is highly active at low use rates.	Clarity®	8 oz/A	Broadleaves
<b>VILLAIN®*¹</b>	<b>R-metolachlor:</b> 3.26 lb/gal <b>Mesotrione:</b> 0.33 lb/gal <b>Safener</b>	<b>15:</b> Very Long Chain Fatty Acid Inhibitor <b>27:</b> HPPD Inhibitor	Metolachlor and mesotrione combat annual grass and broadleaf weeds in this pre and post-emerge herbicide for grain sorghum.	Zemax®	1 – 2 qts/A	Grass and Broadleaves
<b>VILLAIN® XRT¹</b>	<b>S-metolachlor:</b> 3.34 lb/gal <b>Mesotrione:</b> 0.33 lb/gal <b>Safener</b>	<b>15:</b> Very Long Chain Fatty Acid Inhibitor <b>27:</b> HPPD Inhibitor	Proven herbicide containing two effective active ingredients – s-metolachlor and mesotrione. Contains XRT technology which helps enhance soil applied herbicides by keeping active ingredients in the weed germination zone longer.	Unique to Innqvictis Crop Care	1 – 2 qts/A	Grass and Broadleaves
<b>VISOR® II XRT¹</b>	<b>S-metolachlor:</b> 5.69 lb/gal <b>Safener</b>	<b>15:</b> Very Long Chain Fatty Acid Inhibitor	Selective preplant surface applied, preplant incorporated, or preemergence herbicide for control of most annual grasses and broadleaf weeds in a broad variety of crops. Includes our proprietary technology XRT extended residual technology.	Unique to Innqvictis Crop Care	1.3 – 2.2 pts/A²	Grass and Broadleaves








PRODUCT	AI	MOA	DESCRIPTION	COMPARABLE PRODUCT	USE RATE	TARGET PEST
<b>VISOR® S-MOC HERBICIDE<sup>1</sup></b>	<b>S-metolachlor:</b> 7.62 lb/gal	<b>15:</b> Very Long Chain Fatty Acid Inhibitor	Metolachlor based herbicide. Foundation herbicide for cotton. Controls grasses and certain broadleaf weeds.	Dual® Magnum	1 - 1.67 pts/A <sup>2</sup>	Grass and Broadleaves
<b>VISOR® S-MOC II HERBICIDE<sup>1</sup></b>	<b>S-metolachlor:</b> 7.64 lb/gal <b>Safener</b>	<b>15:</b> Very Long Chain Fatty Acid Inhibitor	Metolachlor based herbicide + safener for use in sorghum.	Dual® II Magnum	1 - 1.67 pts/A <sup>2</sup>	Grass and Broadleaves
<b>POSTEMERGE</b>						
<b>GRAVITAS®</b>	<b>Solventless 2,4-D Ester:</b> 5.5 lb/gal	<b>4:</b> Synthetic Auxin	Low-volatile, highly concentrated solventless, 2, 4-D ester herbicide that enters broadleaf weeds through the leaves and moves throughout both the roots and top growth	Weedone® 650	1/3 - 1/2 pts/A	Broadleaves
<b>HAVOC™ AMINE</b>	<b>2,4-D Amine:</b> 3.8 lb/gal	<b>4:</b> Synthetic Auxin	2, 4-D amine herbicide for selective control of many broadleaf weeds.	Agri Star® Amine 4	1/2 - 1 pts/A	Broadleaves
<b>HAVOC™ LV-FOUR</b>	<b>2,4-D Ester:</b> 3.8 lb/gal	<b>4:</b> Synthetic Auxin	2, 4-D ester herbicide for selective control of many broadleaf weeds.	Agri Star® LV4	1/2 - 1 pts/A	Broadleaves
<b>HAVOC™ LV-SIX</b>	<b>2,4-D Ester:</b> 5.5 lb/gal	<b>4:</b> Synthetic Auxin	A low volatility 6 lb 2,4-D ester formulation is easier to handle with its higher concentration.	Agri Star® LV6	1/3 - 3/3 pts/A	Broadleaves
<b>PROVENTIX 75 WDG®</b>	<b>Halosulfuron-Methyl:</b> 75%	<b>2:</b> ALS Inhibitor	A selective herbicide that is highly active on nutsedge and annual broadleaf weeds. Proventix offers excellent burndown and residual on labeled weeds.	Permit®	3/3 - 1 oz/A	Broadleaves, Sedges
<b>INSECTICIDES (FOLIAR)</b>						
<b>CROSSOVER® PRO*</b>	<b>Propiconazole:</b> 4 lb/gal <b>Lambda-cyhalothrin:</b> 1 lb/gal	<b>3:</b> DMI (Triazole) <b>3A:</b> Pyrethroid	Combination of propiconazole and lambda cyhalothrin that provides insect control while adding disease protection at an economical cost to the producer.	Unique to Innvictis Crop Care	3 - 4 oz/A	Armyworms, Corn Earworm, Cutworm, Corn Borer, Grasshopper spp., Southwestern Corn Borer, Stink Bug spp.
<b>LANVEER™ LV*</b>	<b>Methomyl:</b> 2.4 lb/gal	<b>1A:</b> Carbamates	A broad-spectrum insecticide that offers rapid knockdown of piercing and sucking insects and foliage feeders for use in a broad list of crops.	Lannate® LV	3/4 - 1 1/2 pts/A	Armyworms, Sorghum Midge
<b>RAVAGE®*</b>	<b>Lambda-cyhalothrin:</b> 1 lb/gal	<b>3A:</b> Pyrethroid	A broad-spectrum pyrethroid that controls insect and mite pests in an abundance of crops.	Silencer	1.92 - 3.84 oz /A	Armyworms, Corn Earworm, Cutworm, Corn Borer, Sorghum Midge, Grasshopper spp., Stink Bug spp.,
<b>RAVAGE® II*</b>	<b>Lambda-cyhalothrin:</b> 2.19 lb/gal	<b>3A:</b> Pyrethroid	Broad-spectrum control of over 30 piercing and sucking insect species, powered by lambda-cyhalothrin. Crop versatility allows for applicators to have ease of use across many different cropping systems.	Silencer	0.96 - 1.92 oz /A	Armyworms, Corn Earworm, Cutworms, Corn Borer, Sorghum Midge, Grasshopper spp., Stink Bug spp.,
<b>SEVER™ 0.5 G</b>	<b>Pyriproxyfen:</b> 0.5%	<b>7C:</b> Juvenile Hormone Mimic	This hard-hitting insect growth regulator causes substantial colony mortality within 3-4 weeks by breaking the reproductive life cycle of ants. This pyriproxyfen-based insecticide is available for use on a multitude of crops.	Esteem® ANT BAIT	1.5 - 2 lb /A	Ants
<b>VEXER® INSECTICIDE</b>	<b>Methoxyfenozide:</b> 2 lb/gal	<b>18:</b> Ecdysone Receptor Agonist	Superior control of a broad spectrum of tough-to-control lepidopterous insects with long-lasting residual from the active methoxyfenozide.	Intrepid 2F®	4 - 12 oz/A	Armyworms, Corn Borer
<b>VICTIMITE®*</b>	<b>Propargite:</b> 6 lb/gal	<b>12C:</b> Mitochondrial ATP Synthase Inhibitor	Propargite-containing miticide that's soft on beneficial insects including bees. Great in an IPM program with no known resistance thanks to its unique site of action.	Comite®	24 - 36 oz/A	Two-spotted and Banks grass Spidermites



PRODUCT	AI	MOA	DESCRIPTION	COMPARABLE PRODUCT	USE RATE	TARGET PEST
FUNGICIDES (FOLIAR)						
<b>CROSSOVER® PRO*</b>	<b>Propiconazole:</b> 4 lb/gal <b>Lambda-cyhalothrin:</b> 1 lb/gal	<b>3:</b> DMI (Triazole) <b>3A:</b> Pyrethroid	Combination of propiconazole and lambda cyhalothrin that provides insect control while adding disease protection at an economical cost to the producer.	Unique to Innictis Crop Care	3 – 4 oz/A	Ergot
<b>INNLIEN™ P</b>	<b>Pyraclostrobin:</b> 2.23 lb/gal <b>Propiconazole:</b> 1.91 lb/gal	<b>11:</b> Qol (Strobilurin) <b>3:</b> DMI (Triazole)	Unique premix fungicide that provides disease control and plant health in many agricultural crops. Contains pyraclostrobin and propiconazole to enhance control over rusts and leaf spot and blight diseases.	Unique to Innictis Crop Care	5.65 – 12 oz/A	Anthracnose, Gray Leaf Spot, Northern and Southern Leaf Blight, Rust, Ergot
<b>IVC SUPER SIX LIQUID SULFUR</b>	<b>Elemental Sulfur:</b> 6 lb/gal	<b>M 02:</b> Inorganic	IVC Super Six Liquid Sulfur is an elemental sulfur containing product that controls both troublesome diseases and mites. Powdery mildew and scab are no match.	Suffa®	0.6 – 2.5 gal/A	Powdery Mildew, Mite spp.
<b>TREVO® FUNGICIDE</b>	<b>Azoxystrobin:</b> 2.08 lb/gal	<b>11:</b> Qol (Strobilurin)	Trevo Fungicide is an azoxystrobin based broad spectrum fungicide for use on a wide range of crops including grain sorghum.	Quadris®	6 – 15.5 oz/A	Anthracnose, Gray Leaf Spot
<b>TREVO® P</b>	<b>Azoxystrobin:</b> 1.18 lb/gal <b>Propiconazole:</b> 1.02 lb/gal	<b>11:</b> Qol (Strobilurin) <b>3:</b> DMI (Triazole)	Trevo P combines the power of two active ingredients, azoxystrobin and propiconazole, which offer two unique modes of action for enhanced disease control.	Quilt Xcel®	10.5 – 14 oz/A	Anthracnose, Ergot, Gray Leaf Spot, Ladder Leaf Spot, Leaf Blight, Zonate Leaf Spot
<b>VIGIL®</b>	<b>Propiconazole:</b> 3.6 lb/gal	<b>3:</b> DMI (Triazole)	Rusts, powdery mildew, leaf spots, and many other diseases are controlled in many different crops. Broad-spectrum and crop diversity powered by propiconazole.	Tilt®, Bumper® 41.8	3 – 4 oz/A	Ergot

PRODUCT	FUNCTIONS	DESCRIPTION	USE RATE
ADJUVANTS			
 <b>ADVERSARY™</b>	Spreader, Drift Control Agent, Penetrant	Adversary is a powerful spreader, drift control agent, and penetrant designed to enhance droplet size while still allowing for optimal spreading and adhesion on the leaf surface.	0.25% v/v
 <b>AVIATOR™</b>	Nonionic Surfactant, Spreader, Sticker, Penetrant, Humectant, Acidifier, Water Conditioning Agent	Aviator is a non-ionic surfactant, water conditioning agent, and acidifier. Aviator enhances coverage, adhesion, and penetration of spray solutions while protecting herbicides from hard water tie-up.	0.25% v/v
 <b>VALKARIE™</b>	Nonionic Surfactant, Spreader, Penetrant, Deposition Aid, Sticker	Valkarie is an NPE free non-ionic surfactant, formulated to improve deposition, spreading, and adhesion of a spray solution. Valkarie is able to soften a leaf's waxy cuticle, leading to increased penetration and movement to the site of action.	0.25% v/v
<b>VENTURI®</b>	Penetrant, Deposition Aid, Nonionic Surfactant	Venturi is a nonionic surfactant and highly refined paraffinic oil, which also includes functioning agents to improve penetration and deposition. Venturi maximizes the activity and effectiveness of soil pesticides.	1% v/v
<b>VERIMAX® AMS</b>	Water Conditioning Agent, Deposition Agent	Verimax AMS is a multi-functional water conditioner and deposition agent for post-emergent herbicide, defoliant, and desiccant sprays. Verimax AMS can contribute to more effective sprayer applications and increase pesticide performance.	0.25 – 0.75% v/v
<b>VIXEN® AC-L</b>	Water Conditioning Agent	Vixen AC-L is a convenient liquid water conditioner and amine compatible formulation. Vixen AC-L increases absorption and translocation and utilizes sequestering agents to condition water.	0.5 – 2 qts/100 gal



## TOMATO PORTFOLIO



Innvictis® offers a variety of products for use on tomatoes at every stage in the growing process.

PRODUCT	AI	MOA	DESCRIPTION	COMPARABLE PRODUCT	USE RATE	PHI
HERBICIDES						
DERIVE® 75 DF	Metribuzin: 75%	5: Photosynthesis Inhibitor Site A	Metribuzin containing group 5 herbicide for use on a broad spectrum of grass and broadleaf weeds and can be used pre and post-emergence for foliar and soil applications.	Metricor™ DF	Preplant Incorporated¹ ⅓ – ⅔ lb/A Postemergence² ⅓ – ⅔ lb/A (Broadcast Sprays) ⅔ – 1 ⅓ lb/A (Directed Sprays)	7 Days
VARSITY® SC	Flumioxazin: 4.0 lb/gal	14: PPO Inhibitor	Broad-spectrum herbicide for spring and fall burndown, pre-plant, and pre-emergence programs. Varsity SC is a liquid formulation herbicide that can be used in a variety of crops and controls a variety of weeds.	Chateau® EZ	Row Middle Application³ 4 oz/A	-
VISOR® II XRT ⁵	S-metolachlor: 5.69 lb/gal Safener	15: Very Long Chain Fatty Acid Inhibitor	Selective preplant surface applied, preplant incorporated, or preemergence herbicide for control of most annual grasses and broadleaf weeds in a broad variety of crops. Contains safener for corn. Includes our proprietary technology XRT extended residual technology.	Unique to Innvictis Crop Care	1.3 – 2.7 pints⁴	30 Days: < 1.75 pints/A applied 90 Days: >1.75 pints/A applied
FUNGICIDES						
MANCOVO™ 75 WDG	Mancozeb: 75%	M3: Multi-Site Contact	Multisite fungicide providing control of damaging diseases like leaf spot species, and blight species. Powered by mancozeb, this class M3 fungicide is a great fit for diverse crop species.	Manzate® Pro-Stick™	0.75 – 3 lb/A⁶	5 Days
TREVO® ELITE	Azoxystrobin: 1.88 lb/gal Difenoconazole: 1.88 lb/gal	11: QoI (Strobilurin) 3: DMI (Triazole)	Trevo Elite is a broad-spectrum product containing two fungicides. It has preventative, systemic, and curative properties and is recommended to control many important plant diseases.	Quadris Top® SBX	4.5 oz/A	0 Days
XUVIA®	Cyprodinil: 37.5% Fludioxonil: 25.0%	9: AP (Anilino Pyrimidines) 12: PP (Phenylpyrroles)	Pre-mix containing cyprodinil and fludioxonil that delivers two modes of action against botrytis, and powdery mildew. Provides long-lasting control on multiple crops through various stages in the pathogen life cycle.	Switch® WG	11 – 14 oz/A	0 Days
INSECTICIDES						
SAVOY® EC	Acetamiprid: 1.0 lb/gal Bifenthrin: 0.8 lb/gal	3A: Pyrethroid 4A: Neonicotinoid	Dual mode of action insecticide with knockdown and residual control of a broad spectrum of sucking and piercing insects.	Unique to Innvictis Crop Care	3.6 – 9.6 oz/A	1 Day
VEXER® INSECTICIDE	Methoxyfenozide: 2 lb/gal	18: Ecdysone Receptor Agonist	Superior control of a broad spectrum of tough-to-control lepidopterous insects with long-lasting residual from the active methoxyfenozide.	Intrepid 2F®	4 – 16 oz/A	1 Day
PRODUCT	ANALYSIS	COMMENTS	DESCRIPTION			USE RATE
PLANT HEALTH TECHNOLOGIES						
OPTYSIL®	2 Fe, 16.5% Soluble Silicon from potassium silicate	Foliar or Soil Application	A unique liquid biostimulant with a highly stable, available, and compatible form of silicon, promoting a healthier rooting system and helping mitigate stress.			6.4 – 16 oz/A

<sup>1</sup> Transplant Tomatoes, <sup>2</sup> Established Tomatoes, <sup>3</sup> Transplant/Raised Bed Tomatoes, <sup>4</sup> Use rates per acre may vary depending on soil type or percentage of organic matter. Please refer to label. <sup>5</sup> Visor II XRT may be applied preplant incorporated or preplant before transplanting. Visor II XRT may be applied post-directed to direct-seeded tomatoes. <sup>6</sup> Max rate is 3.0 lb east of Mississippi River and 2.5 lb west of the Mississippi River.





## 2024 SUNFLOWER EARLY POSTEMERGENCE PROGRAM

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**6-16 oz/A**

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**½ - 4 pts/A**

AnovA® is derived from plants, for plants. AnovA is an amino acid complex in the form of polypeptides. AnovA helps mitigate stresses that plants may encounter at different growth stages during the growing season, increases nutrient absorption through the roots and leaves, and promotes root growth, development, and plant vigor.



**2 oz/A**

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