

### **MODE OF ACTION**

Balance Flexx is a powerful herbicide that inhibits the 4-hydroxyphenylpyruvate dioxygenase (HPPD) enzyme, which is key to the production of pigments and development of chloroplasts in plant tissues.

Weeds are controlled so early they may appear to never emerge in the corn crop. Weeds that do emerge most often acquire a bleached white appearance. Some weeds may show only part of the tissue as white and the rest can be chlorotic (yellow). In a short period of time, the bleached tissue begins to die, first at the edges, and ultimately the weed is killed. These symptoms are likely to be observed following a half inch or more of rain on weeds that emerged during a dry period following planting.

## **EXCELLENT TOOL FOR RESISTANCE MANAGEMENT**

Balance Flexx is an excellent set-up product in a sequential program with Liberty herbicide, Laudis herbicide (plus

atrazine, Liberty or glyphosate), glyphosate herbicides or other postemergence herbicides. Using Balance Flexx as the foundation for a two-pass herbicide program gives corn growers an excellent combination of weed control and weed resistance management with crop safety and flexibility.

## **FLEXIBLE CROP ROTATIONS**

Balance Flexx fits into many cropping systems. Its superb weed control power combined with state-of-the-art crop safety innovation enables growers to readily rotate from corn to other key crops with little or no delay. Growers who use Balance Flexx can plant wheat after a 4-month rotational interval and soybeans after a 6-month interval. Cotton, rice, dry beans and sugarbeets can be planted after a 10-month interval in certain regions and peanuts after an 11-month interval. Most other crops can be planted 18 months following an application of Balance Flexx.

Rotational Interval	Crop	Geography	Minimum Precipitation Requirement <sup>1</sup>	
0 Months	Corn (Field)	All	None	
4 Months	Triticale and Wheat	All	None	
6 Months	Soybeans, Barley, Sweet Corn, Popcorn, Potato, Grain Sorghum and Sunflower	All	None	
10 Months	Cotton and Rice	All	15 inches of cumulative precipitation fro application to planting of rotational crop	
	Alfalfa	All		
	Dry Beans and Sugarbeets	East of the Mississippi River		
11 Months	Peanut	All		
1011	Dry Beans and Sugarbeets	West of the Mississippi River	15 inches of cumulative precipitation fro application to planting of rotational cro	
18 Months	All other crops	All		

<sup>&</sup>lt;sup>1</sup>The amount of cumulative precipitation required before planting a rotational crop is in addition to the required rotational interval given in months. <sup>2</sup>Furrow or flood irrigation not to be included in total. No more than 7 inches of overhead irrigation included in total.

#### **BAYER CROPSCIENCE COMMITMENT**

Today and tomorrow, Bayer CropScience focuses on grower needs and innovation to deliver the most complete and effective corn and crop protection portfolio.

Balanceflexx.us

**IMPORTANT:** This bulletin is not intended to provide adequate information for use of these products. Read the label before using these products. Observe all label directions and precautions while using these products.



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# LEAVE NOTHING TO CHANCE.

When it comes to your corn it pays to be certain. That's why Balance® Flexx early-season corn herbicide protects yields from the start by providing tough, broad-spectrum weed control on contact, then reactivating to kill late-emerging weeds.

# **BALANCE FLEXX IN BRIEF**

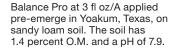
- Balance® Flexx herbicide provides burndown of a broad spectrum of grass and broadleaf weeds, and then reactivates with just a half inch or more of rain to control late-emerging weeds up to 2 inches tall.
- Balance Flexx optimizes early weed control by killing more than 59 grass and broadleaf weeds.
- Balance Flexx works through the roots and shoots of weeds.
- With its CSI<sup>™</sup> Safener technology, Balance Flexx can be applied to corn from burndown or preplant through the V2 growth stage on any soil type, including sandy soils.
- Tough enough to control glyphosate-resistant weeds at a low use rate, Balance Flexx even kills grasses, such as woolly cupgrass, at the 5 to 6 fl oz/A rate.
- Balance Flexx can be used to control glyphosate-, PPO-, triazine- and ALS-resistant weeds, including resistant marestail, common ragweed, waterhemp and Palmer amaranth.
- Flexible enough to be tankmixed with customized rates of atrazine, Balance Flexx is also the perfect foundation herbicide in a sequential program with Liberty® herbicide, Laudis® herbicide (plus atrazine, Liberty or glyphosate), glyphosate or other postemergence herbicides.

# **CROP SAFETY INNOVATION**

- Crop Safety Innovation (CSI) Safener is an exclusive herbicide safener from Bayer CropScience. CSI Safener has both soil and foliar uptake, which makes it active in both pre- and early- post applications.
- CSI Safener enables the corn plant to better withstand herbicidal activity, which can lead to increased root growth and plant health.









Balance Flexx at 6 fl oz/A applied pre-emerge in Yoakum, Texas, on sandy loam soil. The soil has 1.4 percent O.M. and a pH of 7.9.



### **APPLICATION TIMING**

Balance Flexx has a broad application window. Applications are made from burndown or preplant as far out as 30 days prior to planting through early postemergence. If weather or time delays postpone applications, Balance Flexx can still be used through the 2-leaf collar growth stage (V2).

### **USE RATES**

Balance Flexx is used at ounces per acre vs. pints or quarts per acre required with other herbicides. The rate is selected based on soil characteristics, and ranges from 3 fl oz/A on lighter soils with lower organic matter to 6 fl oz/A on most medium- and fine-textured soils. Low use rates mean less shipping, storage and handling, and fewer jugs for growers.

This powerful herbicide does not need adjuvants to provide outstanding soil-applied residual weed control in corn. However, adjuvants can enhance burndown of emerged weeds in reduced tillage and no-till systems.

See chart below or the Balance Flexx label for specific use rates.

#### **TANKMIX PARTNERS**

Atrazine is a preferred tankmix partner with Balance Flexx, as the two herbicides work together to enhance weed control beyond the ability of the two components individually. Balance Flexx plus Crop Oil Concentrate (COC) and a customized rate of atrazine are an outstanding burndown program prior to crop emergence.

Balance Flexx has the versatility to help round out weed control with your preferred amide and atrazine premix partner. Plus, Balance Flexx is a strong tankmix partner for 2,4-D, Autumn™, Autumn Super herbicide, Liberty, glyphosate and Harness®, Dual®, Bicep®, Guardsman® and Keystone® branded products. See the Balance Flexx label for a complete listing of compatible herbicides and usage rates.

## STRONG FOUNDATION FOR TWO-PASS PROGRAM

Balance Flexx is an excellent set-up product in a sequential program with Liberty, Laudis, glyphosate or other postemergence herbicides. For solid residual weed control, make a pre-emergence application of atrazine with 3 to 5 fl oz/A of Balance Flexx and a postemergence application of atrazine, 22 fl oz/A Liberty or glyphosate with 3 fl oz/A of Laudis. Using Balance Flexx as the foundation for a two-pass herbicide program gives corn growers an excellent combination of weed control and weed resistance management with crop safety and flexibility.

Fluid Ounces of Balance Flexx	Herbicide Applied Alo	ne or as Part of a	a Planned Sequen	tial Weed Contro	l Program		
		Fluid Ounces of Balance Flexx Herbicide per Acre Soil Texture					
Application Timing¹							
		Coarse soils: sand, loamy sand, sandy loam		Medium soils: loam, silt loam, silt, sandy clay loam			
	1.5% O.M. <sup>2</sup> or less	>1.5% O.M.	1.5% O.M. or less	>1.5% O.M.	sandy clay, silty clay, clay		
Preplant (Surface-applied or Incorporated): Early 8 to 30 days prior to planting	4	5	6				
Preplant (Surface-applied or Incorporated): 0 to 7 days prior to planting Pre-emergence Early postemergence	3	4	5 6		6		

<sup>1</sup>Balance Flexx herbicide may be applied up to 30 days prior to planting when used in a planned sequential application program such as Balance Flexx followed by Liberty, Buctril® herbicide or other post-applied herbicides.

<sup>2</sup>O.M. = Organic Matter by weight.

#### WEED CONTROL

Weeds	Balance Flexx + atrazine	Guardsman Max <sup>2</sup>	Sharpen™	
Barnyardgrass	С	С	N	
Crabgrass, large	С	С	N	
Crabgrass, smooth	С	С	N	
Cupgrass, woolly	C¹	PC <sup>1</sup>	N	
Foxtail, giant	С	С	N	
Foxtail, green	С	С	N	
Foxtail, yellow	C <sup>1</sup>	С	N	
Johnsongrass, seedling	С	PC <sup>1</sup>	N	
Panicum, fall	С	С	N	
Panicum, Texas	С	PC <sup>1</sup>	N	
Proso millet, wild	C¹	PC <sup>1</sup>	N	
Sandbur, field	PC <sup>1</sup>	PC <sup>1</sup>	N	
Shattercane	PC <sup>1</sup>	PC <sup>1</sup>	N	
Signalgrass, broadleaf	C <sup>1</sup>	PC <sup>1</sup>	N	

<sup>&</sup>lt;sup>1</sup>May require the addition of a pre-emergence grass herbicide tankmix partner or a postemergence herbicide for control of late-season escapes.

<sup>&</sup>lt;sup>2</sup>Includes other amide + atrazine combinations such as Harness Xtra, Harness Extra 5.6L, Bicep II Magnum, Bicep Lite II Magnum, G-Max™ Lite. Individual products fall within limits of specified characteristics but not all limits apply to every product

Broadleaf Weeds Controlled*				
Weeds	Balance Flexx + atrazine Guardsman Max <sup>2</sup>		Sharpen	
Amaranth, Palmer	С	С	С	
Chickweed, common	С	N	С	
Deadnettle, purple	С	N	N	
Kochia	С	С	С	
Lambsquarters, common	С	С	С	
Marestail	С	N	С	
Nightshade, eastern black	С	C <sup>1</sup>	С	
Pigweed, redroot	С	С	С	
Ragweed, common	С	С	С	
Ragweed, giant	C¹	C <sup>1</sup>	С	
Russian Thistle	С	N	С	
Velvetleaf	С	C <sup>1</sup>	С	
Waterhemp spp.	С	С	С	

<sup>&</sup>lt;sup>1</sup>May require a postemergence herbicide.

<sup>&</sup>lt;sup>2</sup>Includes other amide + atrazine combinations such as Harness Xtra, Harness Extra 5.6L, Bicep II Magnum, Bicep Lite II Magnum, G-Max Lite. Individual products fall within limits of specified characteristics but not all limits apply to every product.

<sup>\*</sup>See label for full listing of grass and broadleaf weeds controlled.

#### HEAD-TO-HEAD COMPARISON

Product Characteristics					
Feature	Balance Flexx + atrazine	Guardsman Max		Sharpen	
Formulation	SC	SL		SC	
Rates/Acre	3 to 6 fl oz/A	2.5 to 4.6 pt/A		2 to 3 fl oz/A	
Spectrum of soil-applied residual weed control	Multiple grass and broadleaf weeds	Multiple grass and broadleaf weeds		Multiple broadlea weeds, no grasses	
Burndown weed control	Grass and broadleaf weeds	Grass and broadleaf weeds		Broadleaf weeds only	
Reactivation weed control	Unparalleled	None		None	
Resistance management	Excellent	Good		Good	
Application window-soil	30 days pre-plant	45 days pre-plant		30 days pre-plan	
Crop selectivity—soil	Good/excellent	Good/excellent		Good/excellent	
Application window-foliar	Through V2	12-inch corn		None	
Crop selectivity—foliar	Good/excellent	Good/excellent		None	
Hybrid dependency	None	Atr. sensitive hybrids		Popcorn	
Crop rotation to - soybean	Following spring	Following spring		2 to 3 mo	
- wheat	4 mo	> '	18 mo	Immediately	
- other	6 to 18 mo	> '	18 mo	0 to 6 mo	
Insecticide interaction	Good/excellent	Excellent		Poor	
PHIs	60 days	60 days		80 days	
Total herbicide rate volume/A	Low	Moderate to high		Low	
Excellent Go	ood/excellent G	ood	Fair	Poor/none	



Balance Flexx at 4.5 fl oz/A with 0.5 lb Al/A of atrazine killed weeds early.