



August 14, 2025 Updated

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**RE: Structured Label Format, Updated Examples from WSSA Label Panel and Cross Checked with Required Elements List from CropLife America**

### **SUMMARY**

Pesticide labels are often difficult to understand by applicators and educators thereby limiting their effectiveness. The WSSA organized a panel of 14 Weed Science extension experts from across the country soliciting input on methods of how to improve pesticide label communication. These extension experts review hundreds of herbicide labels each year helping them develop their state pest management handbooks and guides used by growers, pesticide applicators, extension agents, and crop consultants. The group worked with the Registration Division and Adama to implement a standard label format for Brevis™ (metamitron). Additionally, the WSSA concept of structured labels was also presented to the Pesticide Program Dialogue Committee (PPDC) during their June 2025 meeting. Based on those interactions the Label Review Panel has revised our March 14, 2023 recommendations and proposes that all labels include the following.


- 1) a standardized Table of Contents (TOC) for any label over 4 pages,
- 2) a uniform structured format (keep the order of TOC and table entries consistent; if a section is not used leave the section but note “Not Applicable”),
- 3) information communicated primarily in tables and not in text,
- 4) the addition of a brief table with label highlights positioned near the front of the label,
- 5) a conversion table sharing the amount of product per acre relative to pounds active ingredient per acre helping ensure users understand and follow yearly maximum allowed amounts,
- 6) a list of individual crops, NOT crop groups (which users do not understand, cannot easily find, and the groups often change),
- 7) tables of pest efficacy by product rate (especially for pre-mixes),

- 8) tank-mix instructions described in a more defined and clear approach,
- 9) the Mode of Action box should be color coded, differently among pesticide types, so the user knows they are looking at an herbicide to help avoid potentially devastating mistakes,
- 10) consistent language and use of terms,
- 11) resistance management language,
- 12) labels should be designed to clearly describe to users how applicators, consumers, and endangered species can be protected, and
- 13) text in blue in our document are short explanations or examples (e.g., [Any label more than 4 pages should have a Table of Contents](#)).

**For Structured Labels to Be Effective :**

- 1) All labels should follow the same format and order within the TOC helping users find information.
- 2) Within a structured table, if information is not applicable for the table or part of the table then the table/row is still present but would note “Not Applicable” or a footnote could be added below the table saying “The following items are not applicable” or for example in 4.0 Physical or Chemical Hazards, “The following items 4.3 Explosive Table and 4.4 Additional Statements for Fumigants are not applicable.” This information is critical for the product user or advisor, as without these details the search for that information that is on the label is time consuming and frustrating.
- 3) Some information may be repeated across tables within the label to ensure that relevant information is available for the reader. For example, 5.A.0 Aerial Application and 5.G.0 Ground Application will repeat key information since an aerial applicator would not look for details in the ground information section and vice versa. The same point occurs for section 8.0 Directions for Use for Each Crop/Site where key information may be repeated for similar use site.

Herbicides are important tools in agriculture to help feed the world and their product labels provide critical information about how to safely and legally use them. Improvements in herbicide label format, structure, and clarity are critically needed to help applicators better comprehend product labels of increasing complexity. The Weed Science Society of America is dedicated to cooperate in this process.



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Dr. Stanley Culpepper  
University of Georgia



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Dr. Bill Chism  
WSSA, Chair ESA Committee

## **EXAMPLE FORMAT AND TABLES**

**Description:** Labels should incorporate information into tables rather than text whenever possible. The Committee has provided example tables to help with discussions between OPP, registrants, and users.

[Begin Cover Page](#)

### **Restricted Use Pesticide Statement**

#### **Mode of Action Table**

Color Code the Mode of Action Table at the top of each label. Each type of pesticide should be color coded, to avoid devastating mistakes, with blue used for herbicides and other colors used for fungicides and insecticides. Avoid red and green for color blind people.

Herbicide 101	Group	57	Herbicide
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**Product Name**

**Company Logo**

**Product Category and Product Subcategory (Not sure what these are, not in LRM)**

**Product Formulation Table and Ingredient Statements**

#### **Product Formulation Table (not numbered)**

Active Ingredient:	Weedsci; 3,4-9mangeweeds.....	99.00%
Other ingredients:	.....	1.0%
Total:	.....	100.00%
WSSA Herbicide® is formulated as a SL formulation and contains 2.00 lb Weedsci per gallon. (List pounds of active ingredient for all ingredients.)		

**Child Hazard Warning / Keep Out of The Reach of Children**

#### **Signal Words Table (not numbered)**

Signal Word	
Signal Word Qualifiers	
Child Hazard Warning statement	Keep out of the reach of children

**First Aid Table**

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p><b>HOTLINE NUMBER</b></p> <p>For 24-Hour Medical Emergency Assistance (Human or Animal), or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident)</p> <p>Call <b>XXXXXXXXXXXX</b></p>	

**Additional Precautionary Language (if required)**

**Reference Statement to Other Label Elements (This is not in the Label Review Manual)**

**EPA Registration Number – in Highlights Table**

**EPA Label Approved Date – in Highlights Table**

**EPA Establishment Number**

**Manufactured/Packaged for/Distributed/Sold by Company Name and Address**

**Net Contents**

**Made in Country (optional)**

**Lot/Batch Number (Does this need to go on the cover page?)**

**Website and/or QR Code**

Begin PAGE 2

**Label Highlights Table (Place immediately after First Aid table)**

- **Labeled crops: Example:** A postemergence herbicide for use in cucumber, squash, tomato, and watermelon. *If the crop list is too large to fit in the label highlight section, then indicate the page or section number where the list is located.*
- **Formulation:** Liquid Flowable *(if encapsulated include those details here)*
- **Restricted Use Pesticide:** No
- **Rain-Free Period:** 3 hours
- **Restricted Entry Interval (REI):** 12 hours
- **Endangered Species Act:** Example 1: Specific restrictions vary by crop: downwind spray drift buffer ranges from 0 to 110 ft for aerial and 0 to 15 feet for ground applications with runoff/erosion points ranging from 0 to 6. Example 2: Downwind spray drift buffer is 45 feet with runoff/erosion requirements of 3 points; credits are available to reduce buffers.
- **Sale, use, and distribution of this product** is available in all U.S. States except Hawaii. Or provide a link to direct readers to a website for current information.
- **EPA Registration #:** 222-222
- **Label approved:** March 14, 2025

**EXAMPLE TABLE OF CONTENTS** (Immediately after label highlights. The Table of Contents on a label would not need page numbers.)

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**1.0 Hazards to Humans and Domestic Animals (Some labels may just say not applicable)**

1.1 Signal Word for Humans	Say “Not Applicable” when appropriate
1.2 Signal Word for Animals	Say “Not Applicable” when appropriate
1.3 Acute Oral Toxicity	Describe condition, indicate not applicable, or provide footnote that lists items that are not applicable.
1.4 Acute Dermal Toxicity	See note for 1.3 above

1.5 Acute Inhalation Toxicity	See note for 1.3 above
1.6 Primary Eye Irritation	See note for 1.3 above
1.7 Primary Skin Irritation	See note for 1.3 above
1.8 Dermal Sensitization	See note for 1.3 above
1.9 Contains Methanol	“Methanol may cause blindness”
1.10 Additional Statements	

## 2.0 User Safety and Agricultural Use Requirements

### 2.1 Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

- Long-sleeve shirt and long pants
- Socks
- Shoes
- Waterproof or chemical-resistant gloves

Follow the manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### 2.2 Engineering Control Statement

When handlers use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-e)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### 2.3 User Safety Recommendations

Users should:

Wash hands before eating, drinking, chewing gum, using tobacco, or using the bathroom.

Remove clothing/PPE immediately if any of the pesticide penetrates through clothes/PPE before contacting skin. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 2.4 User Safety and Agriculture Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.**

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:

- Long-sleeve shirt and long pants
- Socks
- Shoes
- Waterproof or chemical-resistant gloves

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

### 3.0 Environmental Hazards

3.1 Environmental Hazards	For terrestrial uses only, XXXXX
3.2 Groundwater Advisory	The active ingredient Herbicide 101 is known to leach XXXX
3.3 Surface Water Advisory	This herbicide may impact surface water quality due to runoff or spray drift. XXXXX
3.4 Non-Target Advisory	This herbicide is toxic to plants and may adversely impact the forage habitat of non-target organisms XXXXX
3.5 Mixing and Loading Restrictions	Avoid mixing/loading or using within 50 ft of any well, stream, XXXXXX
3.6 Reporting Environmental Incidents	To report incidents including injury or mortality to plants and animals call 1-800-XXXXXXXX

### 4.0 Physical or Chemical Hazards – (Some labels may just say Not Applicable, or a footnote added listing the items not described e.g., items 4.3 and 4.4 are not applicable)

4.1 Flammable Product Statement	Describe condition, indicate not applicable, or footnote that lists items that are it is not applicable.
4.2 Shock Hazard Statement	See Section 4.1 above
4.3 Explosive Potential	See Section 4.1 above
4.4 Additional Statements for Fumigants	See Section 4.1 above
4.5 Mixing Certain Products Warning	See Section 4.1 above
4.6 Requirements for flame retardant	See Section 4.1 above
4.7 Other physical/chemical hazard statements	See Section 4.1 above

**5.0 Application Instructions and Restrictions** (Separate table for each application method and consider a short description of the type of application, especially for spot treatments). We suggest adding a one or two letter abbreviation for different application methods so the numbers will be consistent across tables.

Example abbreviations. A= aerial, AB = airblast, AQ = aquatic, B = boomless, BK = backpack, C = chemigation, D = drone, DR = drench, F = fogger (in buildings or greenhouses), G = ground, GR = granular materials (herbicide impregnated fertilizer), IF = in-furrow, S = spot,ctSI = soil injection (1,3-D), ST = seed treatment, STU = stump treatment, TI = Tree Injection, etc.

<b>5.A.0 Aerial (A) Application Directions</b> (short definition of this type of application)	
5.A.1 Method of Application	Aerial application
5.A.2 Boom height above target	10 feet unless a higher distance is needed for safety
5.A.3 Droplet size	Use spray nozzles that provide a coarse to ultra coarse droplet (ASABE standard 572.2) or a volume mean diameter of 350 microns or greater.
5.A.4 Water volume	Apply in 4 to 5 gallons of spray solution per acre
5.A.5 Wind speed	Apply when winds are below 10 mph.
5.A.6 Sprayer speed	Apply with aircraft speeds not to exceed 150 mph for fixed wing aircraft or 30 mph for rotary wing aircraft
5.A.7 Temperature and Humidity	When making applications in hot and dry conditions set up equipment to produce larger droplets to compensate for evaporation.
5.A.8 Temperature inversions	Avoid applications during inversions as the potential for drift is extreme. Temperature inversions are characterized by ...
5.A.9 Activating rainfall	Although Herbicide 101 is a postemergence herbicide it may provide residual suppression of sensitive weeds if activated by 0.5 inch of rainfall or irrigation within 4 days of application.
5.A.10 Spray drift buffer	Maintain a downwind buffer between the last spray row and the protection areas as noted in Sections 6.0 and 6.1. <a href="#">If there are no ESA buffer tables (# 6.1 &amp; 6.2) then list buffers here. For example:</a> Lakes, streams, etc. XX feet buffer Highly erodible areas – XX feet buffer, etc. Minimum buffer distances: XX feet to (e.g., when appropriate list distance and to what types of sites such as hospitals, schools, day care centers, etc.). <a href="#">If these buffer distances cannot be reduced through mitigation practices state that here.</a>

5.A.11 Boom width	Fixed wing aircraft boom width should not exceed 75% of wingspan.
5.A.10 Spray drift buffer	Maintain a downwind buffer between the last spray row and the protection areas as noted in Sections 6.0 and 6.1. <a href="#">If there are no ESA buffer tables (# 6.1 &amp; 6.2) then list buffers here. For example:</a> Lakes, streams, etc. XX feet buffer Highly erodible areas – XX feet buffer, etc. Minimum buffer distances: XX feet to (e.g., when appropriate list distance and to what types of sites such as hospitals, schools, day care centers, etc.). <a href="#">If these buffer distances cannot be reduced through mitigation practices state that here.</a>
5.A.12 Buffer distance to well or sink hole	Do not apply within 50 feet of a well or sinkhole.

<b>5.G.1 Ground (G) Application Directions</b> <a href="#">(short definition of this type of application)</a>	
5.G.1 Method of Application	Ground Application
5.G.2 Boom height above target	Do not exceed 24 inches above target pest or crop canopy
5.G.3 Droplet size	Use spray nozzles that provide a medium or coarser droplet (ASABE standard 572.2) or a volume mean diameter of 250 microns or greater.
5.G.4 Water volume	Apply in 10 to 15 gallons of water per acre
5.G.5 Wind speed	Apply when winds are between 3 and 10 mph
5.G.6 Sprayer speed	Apply with ground speeds not to exceed 10 mph
5.G.7 Temperature and Humidity	When making applications in hot and dry conditions set up equipment to produce larger droplets to compensate for evaporation.
5.G.8 Temperature inversions	Avoid applications during inversions as the potential for drift is extreme. Temperature inversions are characterized by ...
5.G.9 Activating rainfall	Although Herbicide 101 is a postemergence herbicide it may provide residual suppression of sensitive weeds if 0.5 inch or more of rainfall or irrigation is received within 4 days of application.
5.G.10 Spray drift buffer	Maintain a downwind buffer between the last spray row and the protection areas as noted in Sections 6.0 and 6.1. <a href="#">If there are no ESA buffer tables (# 6.1 &amp; 6.2) then list buffers here. For example:</a> Lakes, streams, etc. XX feet buffer Highly erodible areas – XX feet buffer, etc.

	Minimum buffer distances: XX feet to (e.g., when appropriate list distance and to what types of sites such as hospitals, schools, day care centers, etc.). If these buffer distances cannot be reduced through mitigation practices state that here.
5.G.11 Boom width	Not applicable
5.G.12 Buffer distance to well or sink hole	Do not apply within 50 feet of a well or sinkhole.

**Note.** Similar tables would be provided for other application methods as appropriate. If a different application method has other application conditions, they should be added at the bottom of the table so that the order remains as consistent as possible.

If subsections are not applicable then say that in the table or a list could be included at the end of the table (e.g., Subsections 5.G.8 and 5.G.9 are not applicable). Users spend a lot of time looking for information, if it is not listed say that so they can stop searching.

**6.0 Endangered Species Instructions** The Endangered Species Act is fundamentally changing the way pesticides are applied. With the enormous educational effort communicating ESA requirements with pesticide users there must be a specific easy to find ESA restriction requirement section. Buffer distance and runoff/erosion mitigation points, when specified need to be on the label to show users there could be risks to listed species and their critical habitat.

<p><b>6.0 Endangered Species Instructions for All Application Methods (Select A or B text)</b></p> <p><b>A.</b> Based on the mitigations that are on this label, the registration is in compliance with the Endangered Species Act and does not have any additional requirements in Pesticide Use Limitation Areas. Users are not required to check Bulletins Live Two! when using this product. (Use this statement only if no impacts are anticipated for this product and BLT reference will not be used and do not include Tables 6.1 through 6.4). You must still check Section 5 Applications for other required buffers.</p> <p><b>B.</b> Applicators must check Bulletins Live! Two within 6 months of application to determine whether the application site falls within a Pesticide Use Limitation Area (PULA) that has a Bulletin. For field sites with a PULA, follow those instructions provided on the Bulletin. For sites without a PULA follow the requirements provided in tables 6.1 and 6.2. <a href="https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins">https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins</a> . For guidance additional information is available at <a href="#">Spray Drift and Mitigation Calculator</a> and <a href="#">Mitigation Calculator Users Guide</a>.</p> <p><b>EPA Registration Number XXX-XXXX (To help with Bulletins Live! Two)</b></p>
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**6.1 Spray Drift Buffer Distance, Downwind (If ESA Mitigation Required)\***

**\*\* Mandatory buffer distance to hospitals, schools, day care centers, habited structures, etc. is XX feet** see Section 5 Application Directions ([insert statement if needed for human risk mitigation](#)).

Maintain a downwind buffer between the last spray row and the protection areas as noted in the following table as influenced by application method.

Protection areas include all areas with the following exceptions which can be included in the buffer footage, provided that people are not present within the application exclusion zone during the application, and they will not be contacted by the pesticide, either directly or through drift:

- 1) Agricultural fields, including untreated portions of the treated field.
- 2) Roads.....
- 3) Buildings and their.....
- 4) Areas maintained.....
- 5) Managed wetlands....
- 6) On-farm contained.....

<b>Crop***</b>	<b>Max. Single Application Rate (oz/A)</b>	<b>Ground Minimum Distance (feet)</b>	<b>Aerial Minimum Distance (feet)</b>
<b>Cucumber and Squash</b>	1.0	30	150
<b>Tomato</b>	0.8	15	100
<b>Watermelon</b>	0.6	10	175

\* If there are no ESA mitigations, Table 6.1 & 6.2, buffer distances should be described in Section 5.10.

\*\*If there are no minimum buffer distance then do not add the text.

\*\*\*If there is only one aerial and ground buffer distance for all crops say “All Crops” in the first column and only use one row.

**6.2 Drift Buffer Reductions (some examples)**

6.2.1 Ground Application	<ol style="list-style-type: none"> <li>1. Larger droplet, etc.</li> <li>2. DRA, etc.</li> <li>3. Windbreaks</li> <li>4. Hooded booms, layby rig etc.</li> <li>5. etc.</li> </ol>
6.2.2 Aerial Application:	<ol style="list-style-type: none"> <li>1. Larger droplet, etc.</li> <li>2. DRA, etc.</li> <li>3. Windbreaks</li> <li>4. etc.</li> </ol>

<b>6.3 Additional Spray Drift Definitions and Information (Key definitions for users.)</b>	
6.3.1 Importance of Droplet Size	An effective way to reduce spray drift....etc.
6.3.2 Hooded (or Shielded Sprayer)	Shielding the boom or individual nozzles can reduce spray drift. Consider using hooded sprayers...etc.
6.3.3 Drift	Drift potential generally increases with wind speed. Applicators need to be familiar....etc.
6.3.4 Measuring Wind Speed and Direction	Applicators should check.....

<b>6.4 Runoff/Erosion Mitigations (If ESA Mitigation Required)</b>		
<p><b>Mandatory buffer distance to sinkholes, wells, etc. is XX feet see Section 5 Application Directions (insert statement if needed for groundwater risk mitigation).</b></p> <p>Applicators must achieve a minimum number of mitigation points prior to applying this product. Point requirements are provided in the table below as influenced by crop and application rate. Access EPA's Mitigation Menu Website at <a href="http://www.epa.gov/pesticides/mitigation-menu">www.epa.gov/pesticides/mitigation-menu</a> for a full list of field/application parameters to ensure the appropriate number of mitigation measures are in place prior to application.</p> <ul style="list-style-type: none"> <li>• Do NOT apply when soils are saturated or above field capacity, regardless of mitigation measures in place.</li> <li>• Do NOT apply during rain, regardless of mitigation measures in place.</li> </ul>		
<b>CROP</b>	<b>Max. Seasonal Allowed Rate (oz/A)</b>	<b>Runoff/Erosion Mitigation Points Needed</b>
<b>Cucumber and Squash</b>	2.0	List the points needed.
<b>Tomato</b>	1.6	List the points needed
<b>Watermelon</b>	1.2	List the points needed

## 7.0 Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### **IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**7.1 Product Description** Brief description of key herbicide information.

Herbicide 101 is a systemic, postemergence herbicide for the control of sensitive weeds smaller than 4 inches. Additionally, if 0.5” or more of rainfall or irrigation is received after application the herbicide will offer residual weed suppression. *Include pertinent details AND make sure the following are addressed 1) water solubility and/or mobility, 2) soil half-life, 3) potential volatility, 4) how the herbicide works such as absorbed through the leaf and stem tissue, etc. and 5) expected symptomology and time interval for weed death.*

**7.2 Active Ingredient Conversion Table** (to include the full range of use rates)

Example of a conversion table (# 7.2) for single active ingredient product.

Weed Sci Soluble Concentrate (oz/A)	Active Ingredient Equivalent (Lb ai/A)
1.0	0.0156
0.9	0.014
0.8	0.0125
0.7	0.01093
0.6	0.009372
0.5	0.00784
0.4	0.00625

Example of a conversion table (# 7.2) for multiple active ingredient products.

Premix Product Name (oz/A)	Active Ingredient Equivalent	
	Ingredient A (Lb ai/A)	Ingredient B (Lb ai/A)
1.27	0.037	0.003
1.36	0.040	0.003
1.82	0.053	0.004
2.25	0.066	0.005
2.5	0.073	0.005
2.7	0.079	0.006
2.73	0.080	0.006

**7.3 Crops/Use Sites Labeled** List individually and alphabetically, avoid crop groups.

Cucumber	Stone Fruit
Pasture	Tomato
Rangeland	Vine Crops
Squash	Watermelon

<b>7.4 Requirements for All Uses (Important reminders for items relevant to all use sites)</b>
<b>YOU MUST</b> (statements about following state and local requirements)
<b>YOU MUST</b> (statements about using a Drift Reducing Adjuvants)
<b>YOU MUST</b> (statements about using a Volatility Reducing Adjuvants)

<b>7.5 Restrictions for All Uses (example categories)</b>
<b>DO NOT</b> (statements about application equipment, e.g., DO NOT apply by aircraft or irrigation system)
<b>DO NOT</b> (statements about rainfall, e.g., Do Not apply within XX hour period)
<b>DO NOT</b> (statements about irrigation or sprinklers)
<b>DO NOT</b> (statements about temperature or frost)
<b>DO NOT</b> (statements about crops under stress)
<b>DO NOT</b> (statements about types of adjuvants that should not be used)
<b>DO NOT</b> (statements about pollinator protection, time of day, or during flowering)

<b>7.6 Crop Rotations “Other Crops Category” if used should be included in table</b>		
<b>PRODUCT RATE</b>	<b>CROPS *</b>	<b>ROTATION INTERVALS</b>
X oz/A	Soybean, Peanut, Sugarcane	None
	Cotton, Field Corn, Rice, Sorghum, Sunflower, Tobacco, Wheat	1 Month
	Barley, Dry and Snap Beans, Peas, Rye, Sweet Corn	3 Months
	All other crops not listed	4 months if soil is tilled prior to planting 8 months if no tillage is performed
2X oz/A	Soybean, Peanut, Sugarcane	None
	Cotton, Field Corn, Rice, Sorghum, Sunflower, Tobacco, Wheat	2 Months
	Barley, Dry and Snap Beans, Peas, Rye, Sweet Corn	4 Months
	All other crops not listed	5 months if soil is tilled prior to planting 10 months if no tillage is performed

\*Be certain to include cover crops in this table.

<b>7.7 Weed Resistance and Integrated Programs (For Herbicides)</b>
Plant into weed-free fields and keep fields as weed-free as possible.
To the extent possible, use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
Prevent an influx of weeds into the field by managing field borders.
Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.

Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
Report any incidence of suspected resistance or non-performance of this product on a particular weed to the local sales representative, local retailer, or county extension agent.

<b>7.7 Insect and Plant Pathogen Resistance and Integrated Programs (For Fungicides and Insecticides)</b>
Avoid repeated or sequential use of products in the same MOA class through rotation of MOA;
If tank mixes or premixes are legally allowed, makes sure each compound is from a different MOA class;
Use an effective IPM program;
Monitor for loss of product performance;
Contact your extension specialist, certified crop consultant, or manufacturer for the latest resistance management information; and
Contact the pesticide producer to report loss of efficacy.

**8.0 Directions for Use for Each Crop/Site** (Have a separate table for each crop, or if use rates and methods are exactly the same for multiple crops then group those crops into one table for simplification e.g., vegetable crops, grain crops, pome fruit, etc., but ensure application uses/rates are exactly the same and each crop must be listed individually in the table title, not just a crop group name. Numbering could go from 8.1 to 8.100 if there are 100 use sites/crops.)

**Use Classification Statement (must include Restricted Use Pesticide if applicable)**

**Misuse Statement**

<b>8.1: Cucumber</b>						
Product Rate (fl oz/A)	Application Timing		Use Directions			
12 to 16	Preemergence		Apply within 24 hours of seeding and follow with 0.5 inch of irrigation before crop emergence.			
12 to 24	Postemergence		Apply after cucumber reaches the 3-leaf stage but before bloom; include adjuvant as noted in Section 9.0			
<b>Tank Mixtures</b>						
Required	Product Z is required to be applied in mixture with postemergence applications of Herbicide 101 to reduce injury potential. <a href="#">Manufacturer may have specific recommendations.</a>					
May be mixed with	Herbicide 101 plus product Z may be mixed individually with product A, B, C, D, E, or F. <a href="#">Manufacturer may have specific recommendations.</a>					
Prohibited	Herbicide 101 may not be mixed with product X or liquid fertilizers. <a href="#">Manufacturer may want to describe adverse effects or incompatibility.</a>					
<b>Use Restrictions</b>						
<i>Application Rate Restrictions Per Acre</i>						
Preemergence Maximum Rate	Postemergence Maximum Rate	Seasonal Maximum Rate	Yearly Maximum Rate	Maximum Number of Applications	Minimum Application Interval	Fall Application Allowed
16 fl oz	24 fl oz	48 fl oz	96 fl oz	2	14 days	Yes
<i>Preharvest Interval (PHI)</i>						
Do not apply less than 30 days before harvest						
<i>Last Application Growth Stage</i>						
Applications may be until the first flowers appear on the crop.						
<i>Geographic Restrictions</i>						
Do not apply in Hawaii						
<i>Soil Restrictions – (texture, organic matter, pH, etc.)</i>						
Do not apply on soils with less than 0.5% organic matter.						
<i>Calendar Date Restrictions</i>						
None						
<i>Additional Restrictions</i>						
Avoid applications if an organophosphate insecticide was applied in-furrow during planting.						
<b>Grazing Restrictions</b>						
Grain	Do not graze					
Forage	Do not graze for 21 days					
Hay	Do not cut for hay less than 15 days after application					
Silage	Do not harvest for 21 days					
Pastures	Lactating livestock	Do not graze for 21 days				
	Non-Lactating livestock	Do not graze for 15 days				
Additional as needed						

<b>8.2: Tomato</b>						
Product Rate (fl oz/A)	Application Timing		Use Directions			
10 to 12	Preemergence		Apply within 24 hours of seeding and follow with 0.5 inch of irrigation before crop emergence.			
12 to 14	Postemergence		Apply after tomato reaches the 6 inches tall but before bloom; include adjuvant as noted in Section 9.0			
<b>Tank Mixtures</b>						
Required	Product Z is required to be applied in mixture with postemergence applications of Herbicide 101 to reduce injury potential. <a href="#">Manufacturer may have specific recommendations.</a>					
May be mixed with	Herbicide 101 plus product Z may be mixed individually with product A, B, C, D, E, or F. <a href="#">Manufacturer may have specific recommendations.</a>					
Prohibited	Herbicide 101 may not be mixed with product X or liquid fertilizers. <a href="#">Manufacturer may want to describe adverse effects or incompatibility.</a>					
<b>Use Restrictions</b>						
<i>Application Rate Restrictions Per Acre</i>						
Preemergence Maximum Rate	Postemergence Maximum Rate	Seasonal Maximum Rate	Yearly Maximum Rate	Maximum Number of Applications	Minimum Application Interval	Fall Application Allowed
12 fl oz	14 fl oz	26 fl oz	96 fl oz	2	14 days	Yes
<i>Preharvest Interval (PHI)</i>						
Do not apply less than 30 days before harvest						
<i>Last Application Growth Stage</i>						
Applications may be until the first flowers appear on the crop.						
<i>Geographic Restrictions</i>						
Do not apply in Hawaii						
<i>Soil Restrictions – (texture, organic matter, pH, etc.)</i>						
Do not apply on soils with less than 0.5% organic matter.						
<i>Calendar Date Restrictions</i>						
None						
<i>Additional Restrictions</i>						
Avoid applications if an organophosphate insecticide was applied in-furrow during planting.						
<b>Grazing Restrictions</b>						
Grain	Do not graze					
Forage	Do not graze for 21 days					
Hay	Do not cut for hay less than 15 days after application					
Silage	Do not harvest for 21 days					
Pastures	Lactating livestock	Do not graze for 21 days				
	Non-Lactating livestock	Do not graze for 15 days				
Additional as needed						

**9.0 Adjuvant Recommendations** (The table should have a row for each type of adjuvant and the second column is suggested for use rate; the third column provides examples of information that

a registrant could provide on the label. The registrant could determine which categories are required or optional for their product and the rest could be deleted or stated “Not required” or “Not recommended”. Finding adjuvant information can be very difficult on some labels. The pesticide manufacturer should state the use rate because there have been cases of “bad apples” that suggest use rates that are not effective.)

<b>9.1 Activator Adjuvants</b>		
• <b>Non-Ionic Surfactant (NIS)</b>	1-2 quart/100 gallon (0.25-0.5% v/v)	
• <b>Crop Oil Concentrate (COC)</b>	1 gallon/100 gallon (1% v/v)	Use a minimum of 1 pint/acre for carrier volumes less than 12.5 gallons per acre.
• <b>Methylated Seed Oil (MSO)</b>	1 gallon/100 gallon (1% v/v)	Use a minimum of 1 pint/acre for carrier volumes less than 12.5 gallons per acre.
• <b>High Surfactant Oil Concentrate (HSOC)</b>	2-4 quart/100 gallon (0.5-1% v/v)	Only use petroleum oil based HSOC products (PO-HSOC). Use of seed oil based (SO-HSOC) may result in excessive crop injury.
<b>9.2 Nitrogen Source</b>		
• <b>Ammonium Sulfate (AMS)</b>	Dry: 4.25-17 lb/100 gallon (0.5 to 2% w/w) Liquid: 1.25-5 gallon/100 gallon (1.25-5% v/v)	Herbicide performance is often improved by AMS, even if hard water is not a problem.
• <b>Urea Ammonium Nitrate (UAN)</b>	2.5 gallon/100 gallon (2.5% v/v)	
• <b>Water Conditioner</b>	The use of AMS or other water conditioning adjuvants are recommended to improve water quality. Spray grade AMS is preferred.	Rate of water conditioner depends on water hardness. Please see adjuvant label.
<b>9.3 Utility Adjuvants</b>		
• <b>Drift Reduction Adjuvant or Agent (DRA)</b>	2-4 quart/100 gallon (0.5 to 1% v/v). Recommended to limit physical drift of fine spray particles.	<b>Is Required (if appropriate).</b> A list of approved adjuvants is located at (...) Ensure that spray nozzle type, spray pressure, and carrier volume are compatible with DRA to avoid a reduction in spray coverage on target surfaces.
• <b>Volatility Reduction Adjuvant or Agent (VRA)</b>	2.5 quart/100 gallon ) 20 oz/acre) minimum concentration.	<b>Is Required (if appropriate).</b> A list of approved adjuvants is located at (...) **Only really pertains to some dicamba products.****
• <b>Defoamer/Antifoam</b>	Use as necessary	

**Note.** Other information on adjuvants could be placed in a new row or under the table.

Example: When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Council of Producers and Distributors Agrotechnology (CPDA) adjuvants certification program is recommended.

## 10.0 Proper Mixing Order

Proper Mixing Order
<ol style="list-style-type: none"> <li>1. Fill tank 1/3 full with clean water and agitate.</li> <li>2. Add spray-grade ammonium sulfate (AMS).</li> <li>3. Add nonionic surfactant (NIS).</li> <li>4. Add Herbicide 101.</li> <li>5. Add dry formulations (DF, WDG), then liquid formulations (L, EC).</li> <li>6. Fill tank with water to desired level.</li> </ol>

11.0 Equipment Clean Up – This section could use text and may not need a table.

## 12.0 Weeds Controlled or Suppressed

The table should include information on effective rates for each species and is especially important with pre-mixes where the effective rate is not equivalent to rates for the single active ingredient. If appropriate include information on different growth stages (preemergence, early postemergence, and late postemergence).

12.1 Preemergence: Weeds Controlled or Suppressed			
Broadleaf Weeds			
Common Weeds	Scientific Name	Rate (oz/A)	Weed Rating
Amaranth, Palmer	<i>Amaranthus palmeri</i>	12	C
Fleabane, hairy	<i>Erigeron bonariensis</i>	16	PC
Sicklepod	<i>Senna obtusifolia</i>	16	C
Grass Weeds			
Barnyardgrass C	<i>Echinochloa crus-galli</i>	14	C
Goosegrass	<i>Eleusine indica</i>	14	C
Oat, wild	<i>Avena fatua</i>	16	PC

12.2 Postemergence: Weeds Controlled or Suppressed			
Broadleaf Weeds			
Common Weeds	Scientific Name	Rate (oz/A)	Weed Rating
Amaranth, Palmer	<i>Amaranthus palmeri</i>	16	C
Dandelion	<i>Taraxacum officinale</i>	16	PC
Kochia	<i>Bassia scoparia</i>	16	PC
Grass Weeds			
Barnyardgrass C	<i>Echinochloa crus-galli</i>	16	PC
Crabgrass, Large	<i>Digitaria sanguinalis</i>	12	C
Foxtail, giant	<i>Setaria faberii</i>	16	PC
Sedges			
Nutsedge, yellow	<i>Cyperus esculentus</i>	8	PC

**13.0 Storage and Disposal – This section may not need a table**

List the container type, pesticide storage conditions, and container handling

**14.0 Conditions of Sale – This section may not need a table**

**15.0 Changes from Previous Label**

<b>Item (examples)</b>	<b>Change</b>
Changes to all use sites	Language was added “Do not apply if 1 inch of rain is expected within 48 hours.”
Change to specific use site(s)	Tomato maximum postemergence application use rate was reduced from 16 to 14 oz/acre.
Changes to Mixing or Cleanup instructions	Added instructions for adding AMS
New pests controlled	Four new pests were added

Having a short list of label changes is invaluable to users to avoid missing a key label change.

*Additional Instructions Specific to Product*

**16.0 Market Claims - We have not developed an example of use sites & surface types**

**17.0 Homeowner use - We have not developed a sample table**

**17.0 Appendix - We have not developed an example**