

 <b>United States</b> <b>Environmental Protection Agency</b> Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number <hr/> Notification
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**Application for Pesticide - Section I**

1. Company/Product Number 100-1185	2. EPA Product Manager Ms. Joanne Miller	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Sequence™ Herbicide</b>	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, Inc. P. O. Box 18300 Greensboro, NC 27419  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____  Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	<b>NOTIFICATION</b>  NOV 30 2004
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

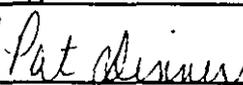
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Syngenta Crop Protection, Inc. is submitting Notification for Sequence Herbicide to clarify the **Rotational Crops** section of the label. We have listed all of the crops that can be replanted versus "any crop on this label may be replanted" to the label. This change has been highlighted on the attached copies (3 copies attached) of the Sequence Herbicide label.

**Section - III**

<b>1. Material This Product Will Be Packaged In:</b>				<b>2. Type of Container</b>	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per Container	If "Yes" Unit Packaging wgt.	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2.5, 30, 120 gallons and Bulk		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Other <u>Pressure Sensitive</u> <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

**Section - IV**

<b>1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)</b>					
Name Pat Dinnen	Title Regulatory Specialist	Telephone No. (include Area Code) 336-632-2494			
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Specialist				
4. Typed Name Pat Dinnen	5. Date November 11, 2004				

Front Cover of Booklet  
(2.5, 30, 120 gallon and Bulk)

Sequence™

Herbicide

Foliar systemic herbicide with residual weed control for corn, cotton, peanuts, pod crops, sorghum, and soybeans

*Active Ingredient:*

*Glyphosate: N-(phosphonomethyl) glycine.....	21.8%
**S-metolachlor (CAS No. 87392-12-9) .....	29.0%
<u>Other Ingredients:</u>	<u>49.2%</u>
<i>Total:</i>	100.0%

\*Contains 2.25 pounds of glyphosate acid per U.S. gallon.

\*\*Contains 3 pounds of S-metolachlor per U.S. gallon.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1185

EPA Est. 100-LA-001

2.5 gallons  
Net Contents

30 gallons  
Net Contents

120 gallons  
Net Contents

\_\_\_\_\_ gallons [Bulk]  
Net Contents

<b>FIRST AID</b>	
<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, 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>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>	

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes, skin, or clothing.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

### Mixers, Loaders, Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Chemical-resistant gloves (Category A), barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, natural rubber  $\geq 14$  mils, polyethylene, polyvinyl chloride (PVC)  $\geq 14$  mils, or viton  $\geq 14$  mils
- Socks and shoes

Follow 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.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### Engineering Control Statements

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. 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.

## **Environmental Hazards**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

## **Ground Water Advisory**

One of the active ingredients in Sequence, S-metolachlor, has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

## **Surface Water Advisory**

One of the active ingredients in Sequence, S-metolachlor, has the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredient may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

## **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing equipment.

This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely

exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

### **Physical and Chemical Hazards**

Do not store, mix or apply this product or spray solutions of this product in unlined steel (except stainless steel), aluminum, galvanized steel containers, or sprayer tanks. This product or spray solutions of this product will react with these containers and tanks and produce hydrogen gas that may form a highly combustible mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by spark, open flame, lighted cigarette, welder torch, or other ignition source.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

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

Sequence should be used only in accordance with recommendations on this label or in separately EPA approved labeling recommendations for this product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL 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) and restricted-entry interval. The requirements in this box only 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 24 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:

- Coveralls
- Chemical resistant gloves Category A, such as butyl rubber, or natural rubber, or neoprene rubber
- Shoes plus socks

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

**NOTE: NOT FOR SALE, USE OR DISTRIBUTION IN NASSAU COUNTY OR SUFFOLK COUNTY, NEW YORK.**

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## **STORAGE AND DISPOSAL**

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Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

**Keep container closed to prevent spills and contamination.**

### **Pesticide Disposal**

Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

### **Container Disposal [2.5 gallon]**

Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, stay out of smoke from burning containers.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

### **For Recyclable/Refillable Containers [30 gallon, 120 gallon, Bulk]**

**Container Disposal:** When the container is empty, replace the cap and seal all openings that have been opened during use and return the container to the point of purchase, or to a designated location named at the time of purchase of this product. This container must only be refilled with this pesticide product. **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact Syngenta Crop Protection at 1-800-888-8372. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

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## **GENERAL INFORMATION**

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Sequence is a foliar systemic herbicide which may be applied to control a broad spectrum of emerged weeds. It will also give some residual control of many small seeded grass and broadleaf weeds, in:

- corn (preplant/preemergence to all corn, postemergence to glyphosate resistant corn including Roundup Ready)
- cotton, (preplant/preemergence to all cotton, postemergence to Roundup Ready® cotton only)
- peanut (preplant and preemergence)
- pod crops (preplant and preemergence)
- sorghum (preplant and preemergence)
- soybean, (preplant/preemergence to all soybeans; postemergence to glyphosate resistant soybeans, including Roundup Ready)

Sequence can also provide residual control of certain weeds. However, if rainfall or irrigation is not received within 7 days after application of Sequence, residual weed control may be reduced. Under these conditions, cultivate or use other weed control measures if weeds develop.

This product is especially useful in no-till, minimum-tillage, and reduced-tillage cropping systems.

Do not apply under conditions that favor runoff or wind erosion of soil containing this product to nontarget areas.

To prevent off-site movement due to runoff or wind erosion:

1. Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
2. Do not apply to impervious substrates, such as paved or highly compacted surfaces.
3. Do not use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a level below that generally considered acceptable for commercial weed control.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

## GENERAL USE PRECAUTIONS

- Sequence requires actively growing green plant tissue to function fully. Application to drought-stressed weeds or weeds with little green foliage (i.e. mowed, cut, or hauled on weeds); weeds covered with dust; weeds damaged by insects or diseases may result in reduced weed control.
- Heavy rainfall or irrigation shortly after application may require re-treatment.
- Tillage or mowing within 3 days following application may reduce weed control.
- Do not apply this product through any type of irrigation system.
- DO NOT spray if conditions of thermal inversion exist, or if wind direction and speed may cause spray to drift onto adjacent nontarget areas. Drift minimization is the responsibility of the applicator. Consult with local and State agricultural authorities for information regarding avoiding or minimizing spray drift.
- Sequence is not volatile and cannot move as a vapor after application onto nontarget vegetation.
- It is recommended that the spray system be thoroughly cleaned with water and a commercial tank cleaner after each use.
- Spray solutions of Sequence should be mixed, stored, and applied using only plastic, plastic-lined steel, stainless steel, or fiberglass containers. Concentrate should not be stored in galvanized steel, aluminum, carbon steel, or unlined steel containers.
- Severe damage or destruction may be caused by contact of Sequence to any vegetation (including leaves, green stems, exposed non-woody roots, or fruit) of crops, trees, and other desirable plants to which treatment is not intended, except as specified for glyphosate-tolerant crops.
- Follow recommended labeled rate for target weeds found in **WEED CONTROL** tables to avoid crop injury and illegal residues or weed control failures.

## GLYPHOSATE RESISTANT WEED MANAGEMENT

Some naturally occurring weed biotypes resistant to glyphosate may exist through normal genetic variability in any weed population. The repeated use of herbicides with the same mode of action is known to lead under certain conditions to a population of resistant weeds. Certain weed control practices reduce the likelihood that resistant weed populations will develop. See Syngenta's recommendations for **Best Weed Management** practices below.

Glyphosate and *S*-metolachlor are the active ingredients in the herbicide Sequence. The primary mode of action of glyphosate applied to aerial portions of target weeds involves inactivation of the target enzyme 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS). This enzyme is involved in the synthesis of several essential amino acids, which are the building blocks for proteins needed for plant growth and development. In susceptible weeds glyphosate binds tightly to EPSPS rendering the enzyme inactive. With the inactivation of EPSPS, the plant is unable to produce certain essential amino acids resulting in plant death. Initial studies on the mechanistic basis of resistance to glyphosate in various weed species have to date, revealed EPSPS target site resistance, and involvement of differences in translocation as important. Other mechanisms by which plants can become resistant to herbicides include differences in uptake, metabolism and sequestration. Within the USA specific biotypes of horseweed/marestail, *Coryza canadensis* and rigid ryegrass, *Lolium rigidum* have become resistant to glyphosate. The first incident reported to the Herbicide Resistance Action Committee (HRAC) of glyphosate resistance was in 1998 on rigid ryegrass. Horseweed resistance was subsequently confirmed in 2000.

*S*-metolachlor is in the chloroacetamide class of herbicides and inhibits cell development and plant growth. The primary mechanism of action involves blocking elongase enzymes and thus the formation of very long chain fatty acids. This results in cessation of weed seedling growth shortly after germination following absorption through the root and shoot. Production of lipids and waxes required for plant growth as well as cell membrane formation is stopped.

There are presently no known weed biotypes confirmed resistant to *S*-metolachlor in the USA.

Combining glyphosate with *S*-metolachlor provides for two different herbicide modes of action (MOA) in a single product. Glyphosate is a broad-spectrum foliar active herbicide with essentially no soil activity while *S*-metolachlor is primarily soil active and can provide residual control of certain weeds.

Following is a list of Syngenta recommendations for **Best Weed Management** practices in glyphosate-based programs.

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- a. Rotate glyphosate with herbicides with a different MOA
- b. Rotate glyphosate tolerant, i.e. Roundup Ready (RR™) crops with conventional crops to reduce resistant crop volunteers
- c. Use alternative burndown herbicides and/or residual herbicides for RR crops likely to require more than one application of glyphosate
- d. Do not use more than two applications of a glyphosate-based herbicide over a two year period in RR soybean production. No more than three in crop applications are recommended for use in RR cotton per year. Glyphosate applications should be rotated with another herbicide with a different MOA or rotated with an in-crop cultivation.
- e. Use the rates shown in the **WEED CONTROL** section, Tables 1-3 for the target weeds and/or tank mix with other herbicides that are effective on the weeds to minimize the possibility of resistant weeds producing seeds or vegetative propagules.

Sequence will not control weeds which have developed resistance to glyphosate.

### **ROTATIONAL CROPS**

Do not rotate to food or feed crops other than those listed below.

**Sequence Alone:** (1) If crop treated with Sequence alone is lost, ~~corn, cotton, peanuts, pod crops, sorghum, and soybeans~~ may be replanted immediately. (2) Barley, oats, rye, or wheat may be planted 4 1/2 months following treatment; alfalfa may be planted 4 months following application. Tomatoes may be planted 6 months following application. (3) ~~Corn, cotton, peanuts, pod crops, sorghum, and soybeans~~ in addition to root crops, tobacco, barley, buckwheat, milo, oats, rice, rye, wheat, cabbage, peppers, stone fruits, or tree nuts may be planted in the spring following treatment. Clover may be seeded 9 months following application.

**Sequence Tank Mixtures:** For **Rotational Crops** restrictions for Sequence used in tank mixtures, refer to the restrictions above for Sequence and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

## WEED CONTROL

Table 1: Annual Weed Control – Sequence Rates

WEED SPECIES	SCIENTIFIC NAME	SEQUENCE PINTS PER ACRE			
		MAXIMUM WEED (HEIGHT/LENGTH)			
		3"	6"	12"	18"
Anoda, spurred	<i>Anoda cristata</i>	2.5	3		
Barley	<i>Hordeum vulgare</i>				2.5
Barnyardgrass	<i>Echinochloa crus-galli</i>		2.5	3.5	
Bassia, fivehook	<i>Bassia hyssopifolia</i>		2.5		
Bittercress	<i>Cardamine</i> spp.				2.5
Bluegrass, annual	<i>Poa annua</i>			2.5	
Bluegrass, bulbous	<i>Poa bulbosa</i>			2.5	
Bristly starbur	<i>Ancanthosporium hispidum</i>		2.5	2.5	
Brome, downy	<i>Bromus tectorum</i>			2.5	
Brome, Japanese	<i>Bromus japonicus</i>			2.5	2.5
Browntop panicum	<i>Panicum fasciculatum</i>		2.5	2.5	3.5
Buckwheat, wild <sup>1</sup>	<i>Polygonum convolvulus</i>	3			
Buffalobur	<i>Solanum rostratum</i>	2.5		3.5	
Burcucumber	<i>Sicyos angulatus</i>		2.5	2.5	
Burgherkin	<i>Cucumis anguria</i>	2.5	3.5		
Buttercup <sup>2</sup>	<i>Ranunculus</i> spp.				2.5
Camphorweed	<i>Heterotheca subaxillaris</i>		3.5		
Canarygrass	<i>Phalaris canariensis</i>		2.5		
Carolina geranium	<i>Geranium carolinianum</i>	2.5	3.5		
Carpetweed	<i>Mullugo verticillata</i>		2.5	2.5	
Cheat	<i>Bromus secalinus</i>				2.5
Chervil	<i>Anthriscus cerefolium</i>				2.5

WEED SPECIES	SCIENTIFIC NAME	SEQUENCE PINTS PER ACRE			
		MAXIMUM WEED (HEIGHT/LENGTH)			
		3"	6"	12"	18"
Chickweed, common	<i>Stellaria media</i>			2.5	2.5
Chickweed, mouseear	<i>Cerastium vulgatum</i>			2.5	2.5
Citronmelon	<i>Citrullus lanatus</i>	2.5	3.5		
Cocklebur, common	<i>Xanthium strumarium</i>			2.5	2.5
Coffee senna	<i>Cassia occidentalis</i>	2.5	3.5		
Corn <sup>3</sup>	<i>Zea mays</i>			2.5	2.5
Corn speedwell	<i>Veronica arvensis</i>			2.5	
Cowpea	<i>Vigna unguiculata</i>	2.5	3.5		
Crabgrass	<i>Digitaria spp.</i>		2.5	2.5	
Crotalaria, showy	<i>Crotalaria spectabilis</i>	2.5	2.5	3.5	
Croton, tropic	<i>Croton glandulosus</i>	2.5	3.5		
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2.5	2.5	4	
Cutleaf eveningprimrose	<i>Oenothera laciniata</i>	2.5	4		
Devil's-claw (unicorn plant)	<i>Proboscidea louisianica</i>	2.5	3		
Dwarf dandelion	<i>Krigia cespitosa</i>				2.5
Eastern mannagrass				2.5	
Eclipta	<i>Eclipta prostrata</i>	2.5	2.5	3.5	
Fall panicum	<i>Panicum dichotomiflorum</i>	2.5	2.5	3.5	3.5
Falsedandelion	<i>Pyrrhopappus carolinianus</i>				2.5
Falseflax, smallseed	<i>Camelina microcarpa</i>			2.5	
Fiddleneck	<i>Amsinckia spp.</i>		2.5	3.5	
Filaree	<i>Erodium spp.</i>		2.5	3.5	
Fleabane, annual	<i>Erigeron annuus</i>				2.5
Fleabane, hairy	<i>Conyza bonariensis</i>		2.5	3.5	
Fleabane, rough	<i>Erigeron strigosus</i>		2.5	2.5	
Florida beggarweed <sup>1</sup>	<i>Desmodium tortuosum</i>		2.5	2.5	

WEED SPECIES	SCIENTIFIC NAME	SEQUENCE PINTS PER ACRE			
		MAXIMUM WEED (HEIGHT/LENGTH)			
		3"	6"	12"	18"
Florida pusley	<i>Richardia scabra</i>	2.5	3.5		
Foxtails	<i>Setaria</i> spp.			2.5	2.5
Goatgrass, jointed	<i>Aegilops cylindrica</i>			2.5	
Goosefoot, neettleleaf	<i>Chenopodium murale</i>		3.5		
Goosegrass	<i>Eleusine indica</i>	2.5	2.5	3.5	
Grain sorghum (milo)	<i>Sorghum bicolor</i>			2.5	2.5
Groundcherry	<i>Physalis</i> spp.		3.5		
Groundsel, common	<i>Senecio vulgaris</i>		2.5		
Hemp sesbania	<i>Sesbania exaltata</i>	2.5		3.5	
Henbit	<i>Lamium amplexicaule</i>		2.5	4	
Hophornbeam copperleaf	<i>Acalypha ostryifolia</i>	2.5	4		
Horseweed/Marestail <sup>9</sup>	<i>Conyza canadensis</i>		2.5	2.5	3.5
Itchgrass	<i>Rottboellia cochinchinensis</i>		2.5	2.5	3.5
Jimsonweed	<i>Datura stramonium</i>			2.5	3.5
Johnsongrass, seedling	<i>Sorghum halepense</i>			2.5	2.5
Junglerice	<i>Echinochloa colona</i>	2.5	2.5	3.5	
Knotweed	<i>Polygonum aviculare</i>		2.5	3.5	
Kochia	<i>Kochia scoparia</i>		2.5	2.5	
Lambsquarters, common	<i>Chenopodium album</i>			3.0	3.5
Lettuce, prickly	<i>Lactuca serriola</i>		2.5	2.5	
Little barley	<i>Hordeum pussillum</i>			2.5	
London rocket	<i>Sisymbrium irio</i>		2.5		2.5
Mayweed	<i>Anthemis cotula</i>	2.5	2.5		3.5
Morningglory <sup>4</sup>	<i>Ipomoea</i> spp.	2.5	3.5		
Mustard, blue	<i>Chorispora tenella</i>			2.5	2.5
Mustard, tansy	<i>Descurainia pinnata</i>			2.5	2.5

WEED SPECIES	SCIENTIFIC NAME	SEQUENCE PINTS PER ACRE			
		MAXIMUM WEED (HEIGHT/LENGTH)			
		3"	6"	12"	18"
Mustard, tumble	<i>Sisymbrium altissimum</i>			2.5	2.5
Mustard, wild	<i>Brassica kaber</i>			2.5	2.5
Nightshade, black	<i>Solanum nigrum</i>	2.5	2.5	3.5	
Nightshade, hairy	<i>Solanum sarrachoides</i> <i>Sendtner</i>	2.5	2.5	3.5	
Oats	<i>Avena sativa</i>		2.5		2.5
Oats, wild	<i>Avena fatua</i>		2.5		2.5
Panicum, Texas	<i>Panicum texanum</i>			2.5	3.5
Pennycress, field	<i>Thlaspi arvense</i>			2.5	
Pigweed	<i>Amaranthus</i> spp.			2.5	3
Poinsettia, wild	<i>Euphorbia heterophylla</i>	2.5	3.5		
Prickly sida (Teaweed) <sup>4</sup> .	<i>Sida spinosa</i>	2.5	3.5		
Puncturevine	<i>Tribulus terrestris</i>	2.5	3.5		
Purslane, common	<i>Portulaca oleracea</i>	2.5	3.5		
Rabbitfootgrass	<i>Polypogon monspeliensis</i>		2.5		
Ragweed, common	<i>Ambrosia artemisiifolia</i>		2.5	2.5	3.5
Ragweed, giant	<i>Ambrosia trifida</i>		2.5	2.5	3.5
Red rice	<i>Oryza sativa</i>	2.5			
Redweed	<i>Melochia corchorifolia</i>	2.5	3.5		
Rockpurslane Redmaids	<i>Calandrinia</i> spp.		2.5		
Rye	<i>Secale cereale</i>				2.5
Ryegrass, Italian	<i>Lolium multiflorum</i>		2.5	3.5	
Sandbur, field	<i>Cenchrus incertus</i>			2.5	
Sandbur, southern	<i>Cenchrus echinatus</i>		2.5	2.5	
Shattercane	<i>Sorghum bicolor</i>			2.5	2.5
Shepherdspurse	<i>Capsella bursa-pastoris</i>			2.5	
Sicklepod	<i>Cassia obtusifolia</i>	2.5	3.5		
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	2.5	2.5	3.5	✓
Smartweed (ladysthumb)	<i>Polygonum persicaria</i>		2.5	3.5	

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WEED SPECIES	SCIENTIFIC NAME	SEQUENCE PINTS PER ACRE			
		MAXIMUM WEED (HEIGHT/LENGTH)			
		3"	6"	12"	18"
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>		2.5	3.5	
Sowthistle, annual	<i>Sonchus oleraceus</i>		2.5	3.5	
Spanishneedles	<i>Bidens bipinnata</i>		2.5	3.5	
Speedwell, purslane	<i>Veronica peregrina</i>				
Sprangletop	<i>Leptochloa</i> spp.			2.5	2.5
Spurge, prostrate	<i>Euphorbia</i> spp.		2.5	2.5	
Spurge, spotted	<i>Euphorbia maculata</i>		2.5	2.5	
Spurry, umbrella	<i>Holosteum umbellatum</i>		2.5		
Stinkgrass	<i>Eragrostis cilianensis</i>			2.5	
Sunflower, common	<i>Helianthus annuus</i>				2.5
Thistle, Russian	<i>Salsola iberica</i>		2.5	3.5	
Velvetleaf	<i>Abutilon theophrasti</i>		2.5	3.5	
Virginia copperleaf	<i>Acalypha virginica</i>	2.5	3.5		
Virginia pepperweed	<i>Lepidium virginicum</i>				2.5
Waterhemp	<i>Amaranthus</i> spp.		2.5	3.5	
Wheat	<i>Triticum aestivum</i>			2.5	2.5
Wild Buckwheat	<i>Polygonum convolvulus</i>		2.5	3.5	
Wild-proso millet	<i>Panicum miliaceum</i>		2.5	3	3.5
Witchgrass	<i>Panicum capillare</i>			2.5	
Woolly cupgrass	<i>Eriochloa villosa</i>		2.5	2.5	
Yellow rocket	<i>Barbarea vulgaris</i>			2.5	2.5

<sup>1</sup> Partial control.

<sup>2</sup> Control will be reduced at the button stage.

<sup>3</sup> Will not control glyphosate-tolerant volunteer corn.

<sup>4</sup> Multiple applications may be required.

<sup>5</sup> Will not control glyphosate-tolerant horseweed/(marestail) ryegrass.

Table 2: Annual Weed Control – Sequence Rates in a Tank Mix with 0.25 lb. a.i./A of Dicamba or 0.5 lb. a.i./A of 2,4-D

WEED SPECIES	SCIENTIFIC NAME	MAXIMUM HEIGHT/ LENGTH	SEQUENCE PINTS PER ACRE
Kochia (dicamba only) Lettuce, prickly Morningglory Ragweed, common Ragweed, giant Smartweed, Pennsylvania Velvetleaf	<i>Kochia scoparia</i> <i>Lactuca serriola</i> <i>Ipomoea</i> spp. <i>Ambrosia artemisiifolia</i> <i>Ambrosia trifida</i> <i>Polygonum pennsylvanicum</i> <i>Abutilon theophrasti</i>	6"	2-2.5
Cocklebur, common Fleabane, rough Horseweed/Marestail* Kochia Lambsquarters, common Pigweed Sunflower, common Thistle, Russian	<i>Xanthium strumarium</i> <i>Erigeron strigosus</i> <i>Conyza canadensis</i> <i>Kochia scoparia</i> <i>Chenopodium album</i> <i>Amaranthus</i> spp. <i>Helianthus annuus</i> <i>Salsola iberica</i>	12"	

Read and follow dicamba and 2,4-D labels

\*Glyphosate-tolerant biotypes will not be controlled. Do not use on known glyphosate-tolerant biotypes of horseweed or ryegrass.

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**Table 3: Perennial Weed Control and Weed Management – Sequence Rates Used Alone or in Tank Mix with 0.25 lb. a.i./A of Dicamba or 0.5 lb. a.i./A of 2,4-D**

WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Alfalfa	<i>Medicago sativa</i>	3-4		At 6-8 inch stage or more after final cutting in fall. Deep till 7 days after treatment.
Artichoke, Jerusalem	<i>Helianthus tuberosus</i>	3-4		At or after flowering.
Balsam-apple	<i>Momordica charantia</i>	3-4		Apply at or beyond bloom.
Bahiagrass	<i>Paspalum notatum</i>	3-4		Early seedhead stage.
Barley, foxtail	<i>Hordeum jubatum</i>	2.5-4		4-6 inch stage.
Bentgrass	<i>Agrostis</i> spp.	3-4		Should have at least 3 inches of growth. Ensure entire crown area has resumed growth prior to fall application. Till 7-10 days after application.
Bermudagrass	<i>Cynodon dactylon</i>	3-4		Seedheads may require retreatment.
Bermudagrass, water (knotgrass)		3-4		Apply when water bermudagrass is 12-18 inches in length. Allow 7 days before flushing or flooding the field. Not registered for use in California on this weed.
Bindweed, field	<i>Convolvulus arvensis</i>	3-4		At or after flowering, west of Mississippi River, in late summer for best results.
		3-4		At or after flowering, east of Mississippi River, in late summer for best results
		3-4	Yes	At or after flowering for control, multiple applications may be required. Do not apply by air.
		2.5-4	Yes	For suppression on irrigated agricultural land, by ground equipment only. Apply in fall or following harvest on runners 12 inches or more in length.

WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Bindweed, field (continued)	<i>Convolvulus arvensis</i>	2-3	Yes	For suppression by ground or aerial applications. Apply by air in fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6-18 inches in length.
		2.5-4		<b>In California:</b> Apply at 12 inches or greater runner length. Use high end of rate range where dense populations exist. For suppression on land which is irrigated and tilled, use 2.5 pints/A.
Bluegrass, Kentucky	<i>Poa pratensis</i>	2.5-4		Apply at boot to early seedhead stage.
		2-3.5		For partial control in pasture or hay crop renovation, apply when plants are 4-12 inches.
Bluweed, Texas	<i>Helianthus ciliaris</i>	3-4		Apply at or beyond bloom west of the Mississippi River. For best results, apply in late summer or fall, but before a killing frost.
		2.5-4		Apply at or beyond bloom east of the Mississippi River. For best results, apply in late summer or fall, but before a killing frost.
Brackenfern	<i>Pteridium aquilinum</i>	3-4		Fronds fully expanded and at least 18 inches long.
Bromegrass, smooth	<i>Bromus inermis</i>	2.5-4		Apply when most plants are at the boot to early seedhead stage.
		2-4		For partial control in pasture or hay crop renovation, apply to actively growing plants 4-12 inches in height.

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WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Bursage, woollyleaf	<i>Ambrosia grayi</i>	3-4	Yes	Apply to actively growing plants at or beyond flowering.
		2-3	Yes	Apply to actively growing plants at or beyond flowering.
Canarygrass, reed	<i>Phalaris arundinacea</i>	3-4		Boot to head.
Cattail	<i>Typha</i> spp.	3-4		Early head to early bud.
Clover, red	<i>Trifolium pratense</i>	3-4		Early head to early bud.
Clover, white	<i>Trifolium repens</i>			May require retreatment.
Cogongrass	<i>Imperata cylindrica</i>	3-4		Late summer/fall, greater than 18 inches in height. May require retreatment.
Dallisgrass	<i>Paspalum dilatatum</i>	3-4		Early head to early bud.
Dandelion	<i>Taraxacum officinale</i>	3-4		Early bud.
		2-2.5	Yes	Early bud.
Dayflower <sup>1</sup>	<i>Commelina</i> spp.	3-4		Less than 4 inches in height.
Dock, curly <sup>1</sup>	<i>Rumex crispus</i>	3-4		Early bud.
		2-2.5	Yes	Early bud.
Dogbane, hemp	<i>Apocynum cannabinum</i>	3-4		Late bud to flower. May require retreatment.
		2-2.5	Yes	Actively growing at 6-12 inch stage for suppression.
Dogfennel	<i>Eupatorium capillifolium</i>	3-4		Actively growing, less than 12 inches in height.
Fescue	<i>Festuca</i> spp.	3-4		Apply when most plants have reached the early head stage.
Fescue, tall	<i>Festuca arundinacea</i>	2.5-4		Apply 4 pints/A when most plants have reached boot to early seedhead stage. Fall applications only: Apply 2.5 pints/A when plants are 6-12 inches in height. A spring applied sequential treatment of 2 pints/A will improve long term control.
Goatweed	<i>Scoparia dulcis</i>	3-4		Less than 8 inch stage.
Guineagrass	<i>Panicum maximum</i>	3-4		7-10 leaf stage.
Horsenettle	<i>Solanum carolinense</i>	3-4		Early bud stage
Horseradish	<i>Armoracia rusticana</i>	3-4		Apply when most plants have reached the late bud to early flower stage in late summer or fall.

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WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Iceplant	<i>Mesembryanthemum crystallinum</i>	3-4		At or beyond the early bud stage.
Johnsongrass	<i>Sorghum halepense</i>	2-4		Apply at boot to head stage and in the fall prior to frost. Use 2.5 to 4 pints/A for annual tillage systems. Use 3 to 4 pints/A on no-till acres. Allow 3-7 days before tillage.
		2-3		For burndown, apply when plants are 12 inches in height and allow 3 days before tillage.
Kikuyugrass	<i>Pennisetum clandestinum</i>	3-4		Spray when most kikuyugrass is at least 8 inches in height. Allow 3 or more days after application before tillage.
Knapweed	<i>Centaurea</i> spp.	3-4		Apply in fall at late bud to flower stage.
Lantana, largeleaf <sup>1</sup>	<i>Lantana camara</i>	3-4		Apply at or beyond bloom stage.
Lespedeza	<i>Lespedeza</i> spp.	3-4		Apply when most plants have reached the early bud stage.
Milkweed, common	<i>Asclepias syriaca</i>	3-4	Yes	Apply when most plants have reached the early bud stage.
Milkweed, honeyvine	<i>Ampelamus albidus</i>	3-4	Yes	Late bud to early flower. May require retreatment.
Muhly, wirestem	<i>Muhlenbergia frondosa</i>	3-4		Use 2.5 to 4 pints/A in pasture, sod, or noncrop areas. Spray plants 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.
Mullein, common	<i>Verbascum thapsus</i>	3-4		Early bud.
Napiergrass	<i>Pennisetum purpureum</i>	3-4		Early head stage.

WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Nightshade, silverleaf	<i>Solanum eleagnifolium</i>	3-4		Apply when 60% of plants have berries. Apply fall treatments before a killing frost.
Nutsedge, purple Nutsedge, yellow	<i>Cyperus rotundus</i> <i>Cyperus esculentus</i>	2-4		Apply 3 to 4 pints/A for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. For partial control: apply 2 to 3 pints per acre. Treat when plants have 3-5 leaves or less than 6 inches tall. Repeat treatments at this stage for long term control.
Orchardgrass	<i>Dactylis glomerata</i>	2.5-4		Apply 4 pints/A on plants at early boot to seedhead stage. For partial control in pasture or hay crop renovation, apply 2.5-3.5 pints/A. Apply to actively growing plants 4-12 inches in height.  In orchardgrass sods rotated to no-till corn: Apply 2.5-3.5 pints. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be required for optimum results.
Pampasgrass <sup>1</sup>	<i>Erianthus ravennae</i>	3-4		Apply at or beyond boot stage.

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WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Paragrass	<i>Brachiaria mutica</i>	3-4		Early seedhead stage.
Phaseybean <sup>1</sup>	<i>Phaseolus lathyroides</i>	3-4		Less than 8 inches tall.
Phragmites <sup>1</sup>	<i>Phragmites</i> spp.	3-4		For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Repeat treatments may be necessary. Visual control symptoms will be slow to develop.
Poison hemlock	<i>Conium maculatum</i>	3-4		Apply as a spray to wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Pokeweed, common	<i>Phytolacca americana</i>	3-4		Apply to actively growing plants up to 24 inches in height.
Quackgrass	<i>Agropyron repens</i>	2.5-4		Apply 2.5-4 pints/A in annual cropping systems, or in pastures and sods where deep tillage is used. Do not tank mix with a residual herbicide at the 2.5 pint rate. Spray when quackgrass is 6-8 inches in height. Do not till between harvest and fall applications or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage.
		3-4		Apply in pastures, sod, or noncrop areas where deep tillage will not follow the application. Spray when quackgrass is at least 8 inches in height.

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WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Redvine <sup>1</sup>	<i>Brunnichia ovata</i>	2-4		For suppression, apply 2 pints/A at each of two applications 7-14 days apart or a single application of 4 pints/A. Apply to plants greater than 18 inches tall in September/October to plants which have been growing 45-60 days since the last tillage. Make application at least 1 week prior to killing frost.
Ryegrass, perennial	<i>Lolium perenne</i>	2-4		Apply 2.5-4 pints/A when most plants are in the boot to head stage or prior to frost. In noncrop or areas where no tillage is practiced, use 3-4 pints/A. Do not tank mix with residual herbicides when using the 2.5 pint/A per acre rate.
Smallflowered Alexandergrass	<i>Brachiaria subquadripara</i>	3-4		Less than 4 inches in height, actively growing.
Smartweed, swamp	<i>Polygonum coccineum</i>	3-4		Early bud, 12 inch stage.
		2-3	Yes	Early bud, 12 inch stage.
Sowthistle, perennial <sup>1</sup>	<i>Sonchus arvensis</i>	3-4		Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing, or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to application. Fall treatments must be applied before a killing frost. Allow 3 or more days before tillage.
Spurge, leafy	<i>Euphorbia esula</i>	2-3	Yes	For suppression: greater than 12 inches tall.

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WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Sweet potato, wild <sup>1</sup>	<i>Ipomea pandurata</i>	3-4		Most effective at or beyond flowering stage.
Switchgrass	<i>Panicum virgatum</i>	3-4		Most effective at boot to head stage.
Thistle, artichoke <sup>1</sup>	<i>Cynara cardunculus</i>	3-4		Apply when plants are beyond the bloom stage.
Thistle, Canada <sup>1</sup>	<i>Cirsium arvense</i>	3-4		Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing, or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to application. Fall treatments must be applied before a killing frost. Allow 3 or more days before tillage. For fall applications or following mowing, allow a minimum of 6-8 inches rosette development.
		2-3	Yes	For suppression: Apply in late summer or fall after harvest, mowing, or tillage. Allow rosette regrowth to be a minimum of 6 inches in diameter before treating. Allow 3 or more days before tillage.
Timothy	<i>Phleum pratense</i>	3-4		Boot to head; wait 3 days before tillage.
Torpedograss <sup>1</sup>	<i>Panicum repens</i>	2.25-3		At or beyond seedhead. Repeat applications will be required to maintain control. Fall treatments must be made prior to a killing frost.
Trumpetcreeper <sup>1</sup>	<i>Campsis radicans</i>	3-4		Late September/October applications on actively growing plants at least 18 inches in height; retreatment may be required. Make applications at least one week before killing frost.

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WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE	TANK MIX WITH 2,4-D OR DICAMBA	APPLICATION TIMING AND REMARKS
Vaseygrass <sup>1</sup>	<i>Paspalum urvillei</i>	3-4		Apply at early head stage.
Vetch	<i>Vicia spp.</i>	3-4		Boot to head.
Virginia creeper	<i>Parthenocissus quinquefolia</i>	3-4		Full leaf expansion.
Velvetgrass	<i>Holcus spp.</i>	3-4		Early head stage
Wheatgrass, western	<i>Agropyron smithii</i>	3-4		Boot to head.

<sup>1</sup> Partial control.

## APPLICATION AND MIXING PROCEDURES

### APPLICATION TIMING

Sequence should be applied to actively growing emerged weeds. Annual weeds of 6 inches or less in height are typically the easiest to control. Refer to the **WEED CONTROL** section (Tables 1 and 2) for recommended application timings and rates for specific weeds. Sequence can be applied alone or in combination with other herbicides (labeled for the same use). Follow all applicable directions on this label and on the tank mix partner's label when tank mixing. Application timing may be restricted to specific crop stages. Refer to the **CROP USE DIRECTIONS** section of this label for instructions on applications at crop stages.

When annual weeds have been mowed or grazed prior to application, wait for 3-4 inches of new growth to appear prior to application. When perennial weeds have been mowed or grazed, allow new growth to reach recommended stage prior to application.

Visible effects on annual weeds occur within 2-4 days after application; effects on perennial weeds may take 7 days or longer. Extremely cool or cloudy weather following treatment may slow activity.

**Preplant:** Especially for minimum-tillage or no-tillage systems, Sequence alone and some Sequence tank mixtures may be applied up to 30 days before planting crops listed on this label. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Preemergence:** Apply Sequence during planting (behind the planter) or after planting, but before the crop emerges.

**Postemergence:** Sequence may be applied postemergence alone or in tank mixtures with other herbicides. See the **CROP USE DIRECTIONS** section of this label for crops and approved tank mix herbicides.

## RATES

Follow recommended rates for Sequence listed in Tables 1-3. Use the higher rates when weeds are dense or large. Also, use higher application volumes and pressures when weed vegetation is dense.

## SPRAY ADDITIVES

**Ammonium Sulfate (AMS)** – Control of annual and perennial weeds with Sequence may be improved by adding dry ammonium sulfate at 1 to 2% by weight or 8.5-17 pounds/100 gallons of water. In areas where the water sources contain Ca, Mg, Mn levels exceeding 150 ppm (such as parts of the Texas High Plains), use a minimum of 8.5 pounds AMS per 100 gallons of spray mixture unless the specific crop directions prohibit such use. Liquid formulations of AMS may be used at an equivalent rate. Do not reduce use rates of Sequence when using AMS.

**Drift Control Agents** – Drift control agents may be used with Sequence.

## TANK MIXES WITH RESIDUAL HERBICIDES

Refer to crop sections for recommended tank mixes. Tank mixes of Sequence with other pesticides, fertilizers, or any other additives except as specified on this label or other EPA approved Syngenta supplemental labeling may result in tank mix incompatibility or unsatisfactory performance (i.e., by deactivating glyphosate). It is recommended that the compatibility of any tank mix combination be tested on a small scale such as a jar test before actual tank mixing. The following test assumes a spray volume of 25 gallons/acre. For other volumes make the appropriate changes to the ingredients:

1. Add 1.0 pt. of water to each of two 1 qt. jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add ¼ tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (1/4 tsp. is equivalent to 2.0 pts./100 gals. of spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of herbicide(s) in their relative proportions based on recommended label rates. If more than one herbicide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be

remixed easily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) Slurry the dry pesticide(s) in water before addition, or (b) add ½ the compatibility agent to the water and the other ½ to the emulsifiable concentrate or flowable herbicide before addition to the mixture.

5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **STORAGE AND DISPOSAL** section of this label.
6. Do not mix intended tank mixture if the test mixture is not compatible as indicated by separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility.

Refer to the label of the tank mix partner for mixing directions and precautions that may differ from those outlined here. Use in accordance with the directions for use of the tank mix partner.

#### **Tank Mixing Recommendations:**

1. Fill spray tank ½ full with clean water.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add AMS (if used).
4. Add dry formulations to tank.
5. Add liquid formulations to tank.
6. Add Sequence.
7. Fill remainder of spray tank.

#### **APPLICATION EQUIPMENT AND METHODS**

- Avoid drift. Applications should not be made in low level inversion conditions, when winds are gusty or under any other conditions which favor drift. Inversions are characterized by stable air and increasing temperatures with height above the ground. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer. Drift may cause damage to any non target vegetation.
- All equipment must be properly maintained and washed to remove product residues after use. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

## **Broadcast Applications**

### **Ground Application**

Apply Sequence alone or in tank mixtures by ground equipment in 10-40 gallons of spray mixture per acre, unless otherwise specified. Use sprayers that provide accurate and uniform application. For Sequence tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

When foliage is dense, spray volume should be increased to ensure coverage of the target weeds. Flat-fan nozzles will result in the most effective application of Sequence. Spray boom and nozzle heights must be adjusted to provide coverage of target weed. Flood nozzles may result in reduced weed control due to inadequate coverage.

### **Aerial Application**

Applications should be made in 3-15 gallons of water per acre. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 feet, using low-drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph.

For aerial application in California, refer to the Federal Supplemental Label for aerial application for specific instructions, restrictions, and requirements. For aerial application, consult with State or local authorities regarding any additional requirements for aerial treatments. Banvel tank mixtures may not be applied by air in California.

Avoid direct application to any body of water.

### **Aerial Drift Management**

The interactions of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

- The distance of the outermost nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory** section below.

## **Aerial Drift Reduction Advisory Information**

### **Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity, and Temperature Inversions**).

### **Controlling Droplet Size**

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **Application Height**

Applications should not be made at a height greater than 10 feet above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

## Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

## Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns.

## Temperature Inversions

Application should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## Sensitive Areas

Sequence should only be applied when the potential for drift to sensitive areas is (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive area). Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

For best results, each specific aerial application vehicle used should be quantifiably pattern tested for aerial application of Sequence initially and every year thereafter. To minimize drift, it is suggested aerial application equipment produce the following minimum spray deposition characteristics:

Volume Median Diameter (VMD) > 400 microns  
Volume Diameter (VD) {0.9} > 200 microns

Prolonged exposure of Sequence to uncoated steel surfaces may result in corrosion and possible failure of the part. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of Sequence accumulated during spraying or from spills. Landing gear are most susceptible.

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## **CROP USE DIRECTIONS**

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### **CORN**

Sequence can be applied to corn preplant and preemergence. It can also be applied postemergence over-the-top to glyphosate tolerant corn, including Roundup Ready varieties only. Read and follow all directions for use for corn.

#### **Preplant and Preemergence Applications for Corn (Including Glyphosate Tolerant Corn Such as Roundup Ready Corn)**

**When to Apply:** Apply before, during, or after planting, but before crop emergence.

Follow directions in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND METHODS** sections. Refer to **WEED CONTROL** section (Tables 1-3) for weeds controlled and application rates.

#### **Use Precautions for Preplant and Preemergence Applications in Corn**

- On coarse soils apply a maximum of 3.5 pints/A of Sequence.
- On medium or fine soils apply a maximum of 4.0 pints/A of Sequence.
- Do not exceed 4.0 pints/A of Sequence per year as a preplant or preemergence application.
- Do not apply Sequence to emerged conventional corn, as severe crop injury will occur.
- In preplant or preemergence applications, control of weeds may be improved by adding dry ammonium sulfate at 8.5-17.0 pounds/100 gallons of water.

## Tank Mixtures for Corn (Preplant and Preemerge Applications Only)

Sequence can be tank mixed with the following herbicides and insecticides:

AAtrex® (atrazine)	Dual II MAGNUM®
Aim™	Frontier®
Ambush®	Guardman®
Axiom®	Harness®
Balance® Pro	Harness® Xtra
Basis®	Hornet™
Bicep MAGNUM®	Karate® Insecticide with Zeon™ Technology
Bicep II MAGNUM®	Lasso®
Bicep Lite II MAGNUM®	Lightning®
Bullet®	Lexar™
Callisto®	Lumax™
Camix®	Marksman®
Clarity®	Micro-Tech®
Degree™	Princep®
Degree Xtra™	Prowl®
Dicamba	Touchdown®
Distinct®	Warrior® Insecticide with Zeon™ Technology
Dual MAGNUM®	2,4-D

Refer to this label and the labels of tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds controlled.

### Postemergence Over-the-Top Applications for Glyphosate Tolerant Corn, Including Roundup Ready Varieties

**When to Apply:** Postemergence in Roundup Ready corn.

Follow directions in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND METHODS** sections. Refer to **WEED CONTROL** section (Tables 1-3) for weeds controlled and application rates.

### Use Precautions for Postemergence Over-the-Top Use on Glyphosate Tolerant Corn, Including Roundup Ready Varieties

- Sequence may be applied postemergence to glyphosate tolerant corn from emergence until the corn plants reach 30 inches in height.
- Do not exceed 2.5 pints/A of Sequence in a single application.
- Do not exceed 5.0 pints/A of Sequence per season.

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- Do not exceed 3.9 pints/A per season from this product and Dual MAGNUM. Each pint of Sequence contains approximately 0.4 pint of Dual MAGNUM.
- Do not exceed 1.5 lbs. on an acid equivalent basis per acre of glyphosate per season from all postemergence applications. Each pint of Sequence contains approximately 0.3 lb. glyphosate acid.
- Apply in water as the carrier for postemergence applications in glyphosate tolerant corn.
- Make postemergence applications at least 50 days before harvest.
- Do not graze or feed forage from treated areas for 30 days after application. Do not harvest sweet corn ears from treated areas for 30 days following application.
- Sequence treated corn leaves may exhibit necrotic spotting. This does not affect normal plant growth and crop yield.
- Do not use Sequence postemergence on glyphosate tolerant corn if plants are under any type of stress including but not limited to drought, insect, disease, or injury from cultivation.

Sequence can be tank mixed with the following herbicides and insecticides:

AAtrex	Lexar
Bicep II MAGNUM	Lumax
Callisto	Princep
Clarity	Touchdown
Dual MAGNUM	Warrior Insecticide with Zeon Technology
Karate Insecticide with Zeon Technology	2,4-D

### COTTON

Sequence can be applied to cotton preplant and preemergence. It can also be applied postemergence over-the-top and post directed to Roundup Ready cotton. Read and follow all directions for use below.

#### **Preplant and Preemergence Applications for Cotton (Including Roundup Ready Cotton)**

**When to Apply:** Apply before, during, or after planting, but **before** crop emergence.

Follow directions listed in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES,** and **APPLICATION EQUIPMENT AND METHODS** sections of this label.

Refer to **WEED CONTROL** sections (Tables 1-3) for weeds controlled and application rates.

**Use Precautions for Preplant and Preemergence Applications in Cotton**

- Preplant and preemergence applications of Sequence are limited to use in AR, KS, LA, MS, NM, OK, TN, TX and the Boot Heel of MO.
- Do not use Sequence preplant or preemergence on sand or loamy sand soils.
- For preplant or preemergence applications, do not exceed 2.5 pints of Sequence per acre on sandy loam soils.
- For preplant or preemergence applications, do not exceed 3.5 pints of Sequence per acre on medium and fine soils.
- Do not incorporate Sequence if applied prior to planting, or crop injury may result.
- If heavy rainfall occurs soon after application, crop injury may occur. Injury will be more severe in poorly drained areas where water stands for several hours or days, or where the seeding slit has not been properly closed.
- Do not graze or feed forage or fodder from Sequence treated cotton to livestock.
- In preplant or preemergence applications, control of weeds may be improved by adding dry ammonium sulfate at 8.5-17 pounds/100 gallons of water.
- Do not use in Gaines County, TX.
- Do not apply to Taloka silt loam.
- Do not apply Sequence to emerged **conventional** cotton, as severe crop injury will occur.

**Tank Mixtures for Cotton (Preplant and Preemergence Applications Only)**

Sequence can be tank mixed with the following herbicides:

Caparol®	Direx®	Prowl
Command®	Dual MAGNUM	Staple®
Cotoran®	Karmex®	Touchdown
Cotton-Pro®	Meturon	Zorial®
Cy-Pro®		2-4,D

Refer to this label and the labels of tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds controlled.

**Postemergence Over-the-Top Applications for Roundup Ready Cotton Only (For Use In AL, AR, AZ, CA, FL, GA, KS, KY, LA, MD, MO, MS, NC, NM, OK, SC, TN, TX, and VA Only)**

**When to Apply:** Postemergence, post-directed or hooded sprayer applications in Roundup Ready cotton only.

Follow directions in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND METHODS** sections. Refer to **WEED CONTROL** sections (Tables 1-3), for weeds controlled and application rates.

**Use Precautions for Postemergence Over-the-Top Use on Roundup Ready Cotton**

- Make postemergence applications from 3 inch tall cotton up to the 4-leaf stage of cotton development (until the fifth true leaf reaches the size of a quarter). Do not apply later as severe injury including yield loss could occur.
- Do not exceed 2.5 pints of Sequence per acre in a single application.
- Do not exceed 3.5 pints of Sequence per acre per season.
- Apply in water as the carrier for postemergence and post-directed applications in Round-up Ready cotton.
- Do not use Sequence postemergence if cotton plants are under any type of stress including, but not limited to drought, insect, disease, or injury from cultivation. Cotton leaves may exhibit necrotic spotting that will not affect normal plant development or cotton yield.
- Do not harvest within 100 days of postemergence over-the-top application of Sequence.
- Do not include AMS or other adjuvants when applications are made postemergence to the cotton.
- Do not graze or feed forage or fodder from cotton to livestock.
- Do not use in Gaines County, TX.
- Do not apply to Taloka silt loam.
- Do not apply Sequence to emerged **conventional** cotton, as severe crop injury will occur.

- If tank mixing or used in sequence with other S-metolachlor products, do not exceed 1.9 lbs. S-metolachlor a.i./A per season on coarse textured soils or 2.47 lb. S-metolachlor a.i./A per season on medium or fine textured soils. Sequence contains 0.375 lbs. a.i./A of S-metolachlor per pint.

**Post-Directed Applications in Roundup Ready Cotton (For Use in AL, AR, AZ, CA, FL, GA, KS, KY, LA, MD, MO, MS, NC, NM, OK, SC, TN, TX, AND VA Only)**

**When to Apply:** Sequence may be used through precision post-directed sprayers through the lay-by stage of cotton (<12 inch cotton). After the 5<sup>th</sup> cotton leaf is the size of a quarter, applications that contact the cotton leaves may result in boll loss, delayed maturity, and/or loss of yield. Crop injury may occur when the foliage of treated weeds comes in direct contact with the leaves of the crop.

Apply in 10 to 20 gallons of water per acre and do not exceed 30 psi spray pressure. Refer to **WEED CONTROL** sections (Tables 1-3) for weeds controlled and application rates.

**Use Precautions for Post-Directed Applications in Roundup Ready Cotton**

- Apply as a directed spray to the base of the cotton plant. For best results, apply to weeds less than 3 inches tall being careful to minimize contact of the spray with cotton leaves.
- Only water should be used as carrier for postemergence and post-directed applications in Roundup Ready cotton.
- Maximum allowable application speed is 5 mph.
- Maximum allowable wind speed at application is 10 mph.
- Use low drift nozzles.
- Do not harvest cotton within 80 days of a post-directed application of Sequence.

### Tank Mixtures for Roundup Ready Cotton (Postemergence Over-the-Top or Post-Directed)

Sequence can be tank mixed with the following herbicides and insecticides:

Bidrin®	Karate Insecticide with Zeon Technology
Capture®	Mustang Max™
Centric®	Orthene®
Dimethoate	Staple
Dual MAGNUM	Trimax
Intruder™	Touchdown

Refer to this label and the labels of tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds controlled.

### PEANUT (PREPLANT OR PREEMERGENCE ONLY)

**When to Apply:** Before, during, or after planting, but **before** crop emergence.

Follow directions listed in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND METHODS** sections. Refer to the **WEED CONTROL** sections (Tables 1-3) for weeds controlled and rates.

#### Use Precautions for Peanut

- In peanuts, do not exceed 2.5 pints/A on sandy loam soils or 3.5 pints/A on medium and fine soils.
- Do not exceed 3.5 pints/A of Sequence per preplant or preemergence application. Do not exceed a total of 2.67 lbs. a.i. of S-metolachlor per crop year. Sequence contains 0.375 lbs. a.i. of S-metolachlor per pint.
- If heavy rainfall occurs soon after application, crop injury may occur, especially in poorly drained areas where water stands for several hours or days, or where the seeding slit has not been properly closed.
- Postemergence applications of Sequence to peanut will result in severe crop injury and reduced yields. Do not apply Sequence after peanut emergence. Preemergence applications must be made before ground cracking.
- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Do not harvest peanuts within 90 days of treating with Sequence.

## **POD CROPS (PREPLANT OR PREEMERGENCE ONLY)**

Sequence can be used for weed control in pod crops, such as garbanzo, great northern beans, kidney beans, lima beans, mung beans, navy beans, peas (English\*; southern peas, such as blackeye, pinkeye, crowder, etc.), pinto beans, snap beans (green, wax, string), and lupines (sweet, white, white sweet, and grain).

**When to Apply:** Broadcast application before, during, or after planting but prior to crop emergence.

Follow directions listed in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND METHODS** sections of this label. Refer to **WEED CONTROL** section (Tables 1-3) for weeds controlled and application rates.

### **General Use Precautions for Pod Crops**

- **California Only** - Apply Sequence in pod crops preemergence (after planting) and water with sprinkler or flood irrigation within 7-10 days.
- Control of weeds may be improved by adding dry ammonium sulfate 8.5-17 pounds/100 gallons of spray.
- Do not use on English peas in northeastern U.S.
- Do not exceed 3.5 pints/A of Sequence on coarse soils.
- Do not exceed 4.0 pints/A on medium and fine soils with less than 3% organic matter content (OM).
- Do not exceed 4.0 pints/A on fine soils with greater than 3% OM.
- If heavy rainfall occurs soon after application, crop injury may occur. Injury will be greatest in poorly drained areas where water stands for several hours or days, or where the seeding slit has not been properly closed.
- Do not cut Sequence treated pod crops for hay within 120 days following a Sequence application.
- For control of emerged weeds at application, apply to actively growing weeds.
- Apply only one application per crop year.

### Tank Mixtures for Pod Crops (Preplant or Preemergence)

Sequence can be tank mixed with the following herbicides for control or suppression of annual and perennial weeds provided that the tank mix product label allows use of the product. Refer to the **WEED CONTROL** section (Tables 1-3) for weeds controlled and application rates.

Dual MAGNUM  
Prowl

Sencor®  
Touchdown

Refer to this label and the labels of tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds controlled.

### **SORGHUM – GRAIN SOGHUM (MILO) OR FORAGE SORGHUM (SEED TREATED WITH CONCEP® ONLY) – PREPLANT OR PREEMERGENCE APPLICATIONS ONLY**

**When to Apply:** Before, during, or after planting, but before crop emergence  
Follow directions listed in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND METHODS** sections. Refer to **WEED CONTROL** section (Tables 1-3) for weeds controlled and application rates.

#### **Use Precautions for Sorghum**

- Only apply Sequence to seed commercially treated with Concep safener.
- Control of weeds may be improved by adding dry ammonium sulfate at 8.5-17 pounds/100 gallons of water.
- Do not exceed 3.5 pints of Sequence per acre on coarse soils.
- Do not exceed 3.75 pints of Sequence per acre on medium soils with less than 3% organic matter content (OM).
- Do not exceed 4.0 pints of Sequence per acre on fine soils with greater than 3% OM.
- Contact with sorghum foliage will result in crop injury.
- When applying to emerged weeds, weeds must be actively growing.

### Tank Mixtures for Sorghum (Preplant or Preemergence Applications)

Sequence can be tank mixed with the following herbicides:

AAtrex (atrazine)	Bicep Lite II MAGNUM	Dual II MAGNUM
Bicep MAGNUM	Dicamba	Touchdown
Bicep II MAGNUM	Dual MAGNUM	2,4-D

Refer to this label and the labels of tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds controlled.

### SOYBEAN

Sequence can be applied to soybean preplant and preemergence. It can also be applied postemergence over-the-top to Roundup Ready soybeans. Read and follow all directions for use below.

#### Preplant and Preemergence Applications for Soybean (Including Roundup Ready Soybean)

**When to Apply:** Before, during, or after planting, but **before** crop emergence.

Follow directions listed in **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND METHODS** sections of this label.

Refer to **WEED CONTROL** section (Tables 1-3) for weeds controlled and application rates.

#### Use Precautions for Preplant and Preemergence Applications in Soybean

- On coarse soils apply 2.5-3.5 pints/A of Sequence if organic matter is less than 3% or 3.5 pints/A of Sequence if organic matter is 3% or greater.
- On medium soils apply 3.5-4.0 pints/A of Sequence.
- On fine soils apply 3.5-4.0 pints/A of Sequence if organic matter is less than 3% and 4.0 pints/A of Sequence if organic matter is 3% or greater.
- Do not exceed 4.0 pints/A of Sequence per year as a preplant or preemergence application.
- Do not feed Sequence treated soybean forage or hay for 30 days after application.
- Do not apply products containing S-metolachlor or metolachlor to soybeans after emergence if Sequence is applied preemergence.

### Tank Mixtures for Preplant and Preemergence Applications in Soybean

Sequence may be tank mixed with one or more of the following herbicides and insecticides:

Authority®	Linex®
Authority™ Broadleaf	Lorox®
Boundary®	Lorox Plus
Canopy®	Prowl
Canopy XL®	Pursuit®
Command	Pursuit® Plus
Dual MAGNUM	Reflex®
Dual II MAGNUM	Scepter®
FirstRate™	Sencor
Flexstar®	Squadron®
Frontier	Steel™
Fusilade® DX	Warrior Insecticide with Zeon Technology
Fusion®	2,4-D
Karate Insecticide with Zeon Technology	2,4-DB
Lexone	

Refer to this label and labels of tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds controlled.

### Postemergence Over-the-Top Applications for Roundup Ready Soybeans

**When to Apply:** Postemergence in Roundup Ready soybeans.

Follow directions in the **APPLICATION AND MIXING PROCEDURES, SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT METHODS** sections. Refer to **WEED CONTROL** section (Tables 1-3) for weeds controlled and application rates.

### Use Precautions for Postemergence Over-the-Top Use on Roundup Ready Soybeans

- Make postemergence applications on Roundup Ready soybeans from cracking up through the third trifoliate.
- A postemergence application on Roundup Ready soybeans may not be made if a preemergence application of an S-metolachlor product such as Dual MAGNUM or Dual II MAGNUM has already been applied.
- Do not exceed 3.5 pints/A of Sequence in a single application.
- Do not exceed 3.5 pints/A of Sequence per season.

- Apply in water as the carrier for postemergence applications in Roundup Ready soybeans.
- Make postemergence applications at least 90 days before harvest.
- Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of Sequence.
- Sequence treated soybean leaves may exhibit necrotic spotting, leaf crinkling/curling and stunting. This does not affect normal plant growth and crop yield.
- Do not use Sequence postemergence on Roundup Ready soybeans if plants are under any type of stress including but not limited to drought, insect, disease, or injury from cultivation.

**Tank Mixtures for Postemergence Applications in Roundup Ready Soybeans**

Sequence may be tank mixed with one or more of the following herbicides and insecticides:

Classic®	Karate Insecticide with Zeon Technology
Dual MAGNUM	Python™
FirstRate	Reflex
Flexstar	Storm™
Frontrow™	Touchdown HiTech™
Fusilade DX	Touchdown® Total
Fusion	Warrior Insecticide with Zeon Technology

Refer to this label and the labels of the tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds or insects controlled.

This product is sold only for uses stated on its label.

AAtrex®, Bicep MAGNUM®, Bicep Lite II MAGNUM®, Bicep II MAGNUM®, Boundary™, Callisto®, Caparok®, Centric®, Concep®, Dual MAGNUM®, Dual II MAGNUM®, Flexstar®, Fusilade®, Fusion®, Karate®, Lexar™, Lumax™, Princep®, Reflex®, Sequence™, Touchdown®, Warrior®, Zorial®, and the Syngenta logo trademarks of a Syngenta Group Company

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Cotoran® trademark of Makhteshim Agan of North America

Cotton-Pro trademark of Griffin LLC

FirstRate™, FrontRow®, Hornet™, and Python™ trademarks of Dow AgroSciences

Intruder™ trademark of Nippon Soda Co., Ltd.

Orthene® trademark of OMS Investments, Inc.

Storm™ trademark of United Phosphorus, Inc.

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For non-emergency (e.g., current product information), call  
Syngenta Crop Protection at 1-800-334-9481.

Syngenta Crop Protection, Inc.  
Greensboro, North Carolina 27409  
[www.syngenta-us.com](http://www.syngenta-us.com)

SCP 1185 MAS

SEQUENCE 1185 MAS NOTIF ROTATION - pd- 11-11-04

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Container Label  
(2.5, 30, 120 gallon, Bulk)

Sequence™

Herbicide

Foliar systemic herbicide with residual weed control for corn, cotton, peanuts, pod crops, sorghum, and soybeans

*Active Ingredient:*

*Glyphosate: N-(phosphonomethyl) glycine.....	21.8%
**S-metolachlor (CAS No. 87392-12-9) .....	29.0%
<i>Other Ingredients:</i> .....	49.2%
<i>Total:</i>	100.0%

\*Contains 2.25 pounds of glyphosate acid per U.S. gallon.

\*\*Contains 3 pounds of S-metolachlor per U.S. gallon.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use in attached booklet

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-1185

EPA Est. 100-LA-001

\_\_\_\_\_ gallons  
Net Contents

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### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### CAUTION

Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with skin, eyes, or clothing.

<b>FIRST AID</b>	
<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, 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>
<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 a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>	

#### Environmental Hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

### **Physical and Chemical Hazards**

Do not store, mix or apply this product or spray solutions of this product in unlined steel (except stainless steel), aluminum, galvanized steel containers, or sprayer tanks. This product or spray solutions of this product will react with these containers and tanks and produce hydrogen gas that may form a highly combustible mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by spark, open flame, lighted cigarette, welder torch, or other ignition source.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

### **Ground Water Advisory**

One of the active ingredients in Sequence, S-metolachlor, has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

### **Surface Water Advisory**

One of the active ingredients in Sequence, S-metolachlor, has the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredient may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing equipment.

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This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

## **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Keep container closed to prevent spills and contamination.

### **Pesticide Disposal**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

### **Container Disposal [2.5 gallon]**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### **For Recyclable/Refillable Containers [30 gallon, 120 gallon, Bulk]**

Container Disposal: When this container is empty, replace the cap and seal all openings that have been opened during use and return the container to the point of purchase or to a designated location named at time of purchase of this product. This container must only be refilled with this pesticide product. **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** Prior to refilling inspect carefully for

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damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact Syngenta Crop Protection, Inc. at 1-800-888-8372. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER!**

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[30, 120, Bulk]

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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SCP 1185 MAS

SEQUENCE 1185 MAS NOTIF ROTATION - pd - 11-11-04

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Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, NC 27419-8300  
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**FEDERAL EXPRESS**

November 11, 2004

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (H7504C)  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2  
1801 Bell Street  
Arlington, VA 22202

Attention: Ms. Joyce Edwards

Dear Ms. Edwards:

**SUBJECT: SEQUENCE™ HERBICIDE  
EPA REG. NO. 100-1185  
NOTIFICATION TO CLARIFY ROTATIONAL CROPS**

Syngenta Crop Protection, Inc. is submitting Notification for Sequence Herbicide to clarify the **Rotational Crops** section of the label. We have listed all of the crops that can be replanted versus "any crop on this label may be replanted" to the label. This change has been highlighted on the attached copies (3 copies attached) of the Sequence Herbicide label.

To complete this notification, EPA Form 8570-1 is enclosed. Also enclosed is a self-addressed, return postcard indicating your acceptance/rejection of this Notification. Thank you in advance for approving this request. If you have any questions, please contact me at 336-632-2494.

Sincerely,

Pat Dinnen  
Regulatory Specialist

Enclosures

cc: Ms. Joanne Miller, PM 23  
Mr. Eugene Wilson, Team 23  
Dr. Jerry Wells