



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 15, 2022

Jeffrey H. Birk, Ph.D.
Regulatory Manager
BASF
26 Davis Drive
Research Triangle Park, NC 27709

Subject: Registration Amendment – Amended Terms and Conditions, Revised Labeling Including Revised Master and Collateral Labeling to Include Website Reference
Product Name: ENGENIA HERBICIDE
EPA Registration Number: 7969-472
Application Date: 1/12/2022
Decision Number: 581696

Dear Dr. Birk:

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided BASF complies with all terms and conditions listed below. The labeling associated with this approval supersedes the previously approved label. This amendment does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them. This includes the stipulation that this registration remains time-limited and will automatically expire on December 20, 2025 unless amended by EPA.

In response to dicamba-related incident reports received by EPA from the 2021 growing season, BASF submitted a label amendment pursuant to 40 C.F.R. § 152.44 to change the directions for use on this product to further restrict use of this product when used in Minnesota and Iowa. Subject to the additional terms and conditions of registration described in this letter, EPA approves the labeling proposed by BASF and has determined that the amendment meets the standard of registration. The amendment approved through this letter includes additional, state-specific application date (Iowa) and application date and temperature (Minnesota) restrictions intended to further reduce volatility to minimize off-field movement of the active ingredient dicamba.

The ecological risk assessment (available on www.regulations.gov in docket EPA-HQ-OPP-2020-0492) relied upon in the registration of the product on 10/27/2020 supports the use of measures to address offsite movement, such as application cut-off dates, to avoid applications of dicamba on days with temperatures favoring volatility. As discussed in that risk assessment, ambient temperature has been demonstrated to be directly related to the volatility of dicamba, with higher temperatures leading to increased volatility. Restricting the application to a time when temperature is reduced both at the day of application and in the days following application

is likely to reduce the potential for volatilization of dicamba. The previously approved label does not contain a temperature cut-off, but rather relies upon cut-off dates. A temperature cut-off could help to further reduce the number of days with temperatures that favor higher volatility.

Because this amendment approves application cut-off dates earlier or no later than the cut-off dates considered in the ecological risk assessment developed for the registration of the product on 10/27/2020, and because the temperature cut-off adds further restriction than what was considered in the aforementioned risk assessment, this amendment does not allow for exposures beyond what was considered in the ecological risk assessment, and thus does not require a new ecological risk assessment.

BASF must comply with all the following terms and conditions:

1. All product produced, packaged, and/or released for shipment beginning April 14, 2022 and thereafter must bear the new final printed labelling or be shipped along with approved collateral labelling referencing the website described in 2.b. BASF must ensure all production activities take place in an EPA-registered establishment and that all production is reported pursuant to FIFRA section 7.
2. Product labeling approved prior to March 15, 2022 is now superseded by the revised labeling. Therefore, to ensure that products are not misbranded or misused, and appropriate labeling is in the possession of users for the 2022 growing season, the following terms and conditions are required.
 - a. Any sale or distribution of this product by BASF after April 14, 2022 that is not labeled with the approved label or collateral labeling as described above will be considered a violation of FIFRA and may be subject to EPA enforcement. Some of these enforcement measures may include, but are not limited to, the issuance of Stop Sale, Use or Removal Orders (SSUROs) and/or the assessment of penalties.
 - b. For all existing product in the possession of BASF or released for shipment and are in the channels of trade prior to April 14, 2022, BASF must make the amended labeling available as described below.
 - i. By March 18, 2022, a new page on BASF's website must be created with the url(s) provided on the accepted new label where the user will be able to access additional labeling requirements for this registration in a downloadable format.
 - ii. By March 18, 2022, copies of the amended labeling must be announced and posted in a prominent location on all BASF websites that are part of labeling and be retained until the expiration date of this registration unless superseded by subsequent approved labeling.

- iii. By March 18, 2022, a non-closeable banner containing the following must be prominently displayed at the top of all BASF websites that are part of labeling. This banner must be posted until the expiration date of this registration unless superseded by subsequent approved labeling.
 - 1. “ATTENTION: YOU MUST HAVE ALL LABELING APPLICABLE TO YOUR LOCATION IN YOUR POSSESSION FOR ENGENIA HERBICIDE TO BE LAWFULLY APPLIED AFTER March 15, 2022.”
 - 2. A copy or link to a copy of the amended labeling with approval date unless prominent label links are visible upon reading banner.
 - 3. “BASF has provided amended labeling for this product and users are under legal obligation to follow amended labeling.”
 - 4. “It is a violation of FIFRA Section 12 to use a registered pesticide in a manner inconsistent with its labeling.”
- c. BASF must communicate the availability of and requirement for users to follow the amended labeling when using products that were sold or distributed prior to April 14, 2022 in the annual ENGENIA HERBICIDE education and training program, including in written educational communications. This information must be incorporated into the training as of March 15, 2022. The training course must provide users with the amended labeling and must discuss the requirement to visit the listed website. Materials must emphasize that:
 - i. Users must obtain a copy of the amended labeling (which includes the approved collateral labeling referenced above and labeling downloaded from the listed website, as applicable), which must be in possession of the user at the time of application.
 - ii. After March 15, 2022, users of this product must follow the amended labeling they receive during training.
- d. BASF must take the following actions to contact all users who have already completed the 2022 training in states where there are EPA-approved state-specific restrictions to communicate the amended labeling. This will be done by sending all users who have already completed the 2022 training either (1) an email containing an ask for them to respond with a certification statement acknowledging that they have read and understood the new requirements or (2) a physical letter containing a reply postcard acknowledging receipt stating they have read and understood the new labeling requirements. If BASF does not receive the email response or reply postcard within two weeks, BASF must contact that user two additional times. The second contact attempt must be made by repeating the initial method of contact. Next, if no reply is received one week after the second contact attempt, the BASF must follow-up another time with an alternative reasonable means of contact to receive documentation from the user

acknowledging that they have read and understood the new labelling requirements. If a valid phone number is used as the method for making the third contact attempt, BASF must solicit the user during that phone call to either mail or email them an acknowledgement that they have read and understand the new labeling requirements. Records of these contact attempts and replies must be kept by BASF and shared upon request.

- e. BASF must send a report to EPA by April 29, 2022 detailing its efforts to accomplish all of the above. A copy or a link to the copy of the training materials must be included with this report. BASF must maintain copies of any correspondence it sends to all sellers, distributors, and purchasers and make them available to EPA upon request.
3. BASF must communicate the availability and requirement to adhere to the amended labeling.
- a. BASF must add the amended labeling to their training and educational materials and have website links to copies of the current approved labeling.
 - b. The educational and training materials supporting this labeling change must be disseminated to state pesticide authorities and state agricultural extension services to support those authorities in assisting users in their local area.
 - c. Registrant will send, either to a valid and appropriate e-mail address and/or via mail, correspondence to all known sellers and distributors of this product to notify them of these changes. Registrant will send a copy of this correspondence to EPA prior to distribution of these materials. This draft correspondence will be sent to EPA by March 22, 2022. EPA will be offered at least seven days to review and EPA comments must be incorporated into the final materials.

References to the company's website on the label becomes labeling under FIFRA and therefore the website is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA Section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on the product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to EPA's attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of the labeling is enclosed. This labeling supersedes all previously accepted labeling. BASF must submit one copy of the final printed labeling for the record before releasing this product for shipment with the revised labeling.

In addition to BASF's prior written acceptance of these terms, release of this product for shipment further confirms BASF's acceptance of all terms and conditions listed above. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA Section 6, including cancellation under FIFRA 6(e).

If you have any questions, please contact Margaret Hathaway by phone at (202) 566-2730, or via email at hathaway.margaret@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Lindsay M.", with a stylized flourish at the end.

Lindsay Roe, Chief
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

RESTRICTED USE PESTICIDE

To be used by certified applicators only; NOT to be used by uncertified persons working under the supervision of a certified applicator, except that uncertified persons may transport containers.

This EPA registration expires December 20, 2025, **DO NOT** use or distribute this product after December 20, 2025.



We create chemistry

Dicamba	Group	4	Herbicide
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Engenia®

Herbicide

For weed control in Dicamba-tolerant (DT) cotton†; Dicamba-tolerant (DT) soybean†

† Only for use in states listed as US EPA approved in the **Dicamba-tolerant (DT) Crops**.

Active Ingredient*:

dicamba: N,N-Bis-(3-aminopropyl)methylamine salt of 3,6-

dichloro-*o*-anisic acid 60.8%

Other Ingredients: 39.2%

Total: 100.0%

* Contains 48.38% dicamba (5 pounds acid equivalent per gallon or 600 grams per liter)

EPA Reg. No. 7969-472

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See full label for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

ACCEPTED

Mar 15, 2022

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 7969-472

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by a poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed or inhaled. Avoid breathing vapor or spray mist. Remove and wash contaminated clothing before reuse. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

All mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves
- A NIOSH-approved dust/mist filtering respirator with any R, P, or HE filter. Examples include a filtering facepiece respirator with approval number prefix TC-84A and an R or P designation, or a full-face or half-mask respirator with R, P, or HE cartridges.

See **Engineering Controls** for additional requirements. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

When handlers use closed systems or enclosed cabs 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 after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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 disposing of equipment washwater or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into groundwater 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 groundwater contamination.

Ground and Surface Water Protection

Point-source Contamination

To prevent point-source contamination, **DO NOT** mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. **DO NOT** apply pesticide product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be

maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment washwater, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent:

- Back-siphoning into wells
- Spills
- Improper disposal of excess pesticide, spray mixtures, or rinsate

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

Movement by Surface Runoff or Through Soil

DO NOT apply under conditions which favor runoff.
DO NOT apply if soil is saturated with water or when rainfall that may exceed soil field capacity is forecast to occur within 48 hours.

Under some conditions, dicamba has the potential for runoff several days after application. Poorly draining, wet, or erodible soils with readily visible slopes toward adjacent sensitive areas are more prone to produce runoff. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Soil Conservation Service for recommendations in your use area.

DO NOT apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for groundwater contamination. Groundwater contamination may occur in areas where soils are permeable or coarse and groundwater is near the surface. **DO NOT** apply to soils classified as sand with less than 3% organic matter and where groundwater depth is shallow. To minimize the possibility of groundwater contamination, carefully follow the specified rates as affected by soil type in the **Crop-specific Information** section of this label.

Movement by Water Erosion of Treated Soil

Ensure treated areas have received at least 1/2-inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

DO NOT apply this product through any type of irrigation system including sprinkler, drip, flood, or furrow irrigation.

Endangered Species

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law. Use of this product in a manner inconsistent with the label may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the

Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product. Please Note: Additional endangered or threatened species obligations are listed under **Endangered Species** on this label. See **Crop-specific Information – Dicamba-tolerant (DT) Crops** section for more details regarding protection of endangered species.

Directions For Use

RESTRICTED USE PESTICIDE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the user's possession during application. The user must check www.EngeniaHerbicide.com/labels no more than 7 days before application of this product for additional labeling, including state restrictions. Where applicable, users must comply with additional requirements found on this website. To be used by certified applicators only; NOT to be used by uncertified persons working under the supervision of a certified applicator, except that uncertified persons may transport containers.

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.

Observe all precautions, restrictions, and limitations in this label and the labels of products used in combination with this product. Keep containers closed to avoid spills and contamination.

All applicable directions, restrictions, precautions, and **Conditions of Sale and Warranty** are to be followed.

**RESTRICTED USE PESTICIDE
RECORD KEEPING REQUIREMENTS**

Users must keep the following records for a period of two years; records must be generated within 72 hours after application and a record must be kept for every individual application. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. The following information must be recorded and kept as required by the Federal Pesticide Record Keeping Program, 7 CFR Part 110:

1. **Full name of the certified applicator**
2. **Certification number of the certified applicator**
3. **Product name**
4. **EPA registration number**
5. **Total amount applied of this product**
6. **Application month, day, and year**
7. **Start and Finish Times:** the time the applicator begins and the time the applicator completes applications of this product.

(continued)

RESTRICTED USE PESTICIDE
RECORD KEEPING REQUIREMENTS
(continued)

8. **Location of the application**
9. **Crop or site receiving the application**
10. **Size of area treated**
11. **Training Requirement:** proof that the applicator completed dicamba-specific training described in this section.
12. **Application Timing:** whether the applicator applied this product preemergence or postemergence.
13. **Receipts of purchase:** receipts for the purchase of this product, and for the purchase of the required pH buffering adjuvant and any required drift reduction adjuvant.
14. **Product Label:** A copy of the product label and any labeling that supplements the product label.
15. **Sensitive Areas, Sensitive Crops, and Residential Awareness (see Downwind Spray Buffer Areas and Sensitive Crops, Areas and Residential Areas):** Document/record that the applicator checked an applicable sensitive crop/specialty crop registry; and document that the applicator surveyed all adjacent fields for any sensitive areas, sensitive crops, or residential areas surrounding the field prior to application. At a minimum, records must include the date the applicator consulted the sensitive crop registry/specialty crop registry and the date the applicator surveyed within the required spray buffer distance **Downwind Spray Buffer Areas** and **Sensitive Crops, Areas and Residential Areas** adjacent fields, and the name of the sensitive crop registry/specialty crop registry the applicator consulted. The applicator must be aware that **WIND DIRECTION** may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent sensitive crops or residential areas, **STOP** the application.
16. **Spray Buffer Requirement:** Record of the required downwind buffer distance (240 feet or required Endangered Species County requirements) determination and any areas included within the buffer distance determination.
17. **Spray System Cleanout:** Document that the applicator complied with the section of this label titled: **"Spray System Equipment Clean-out"**. At a minimum, records must include the date the applicator performed the required cleanout, and cleanout method that the applicator followed.
18. **Tank Mix Products:** a list of all products (pesticides, adjuvants, and other products) that the applicator tank mixed with this product for each application. Include EPA registration numbers in the case of any pesticides.
19. **Required Tank Mix Buffering Adjuvant:** list the Buffering Adjuvant and use rate that was tank mixed with **Engenia® herbicide**.

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RESTRICTED USE PESTICIDE
RECORD KEEPING REQUIREMENTS
(continued)

20. **Nozzle Selection:** which spray nozzle the applicator used to apply this product, and the nozzle pressure the applicator set the sprayer to.
21. **Air Temperature:** the air temperature at boom height at the time the applicator starts and finishes applications of this product.
22. **Wind Speed and Direction:** the wind speed at boom height at the time the applicator starts and finishes applications of this product, and the wind direction at the time the applicator starts and finishes applications of this product.

Training Requirements

Prior to applying this product, all applicators must complete dicamba-specific training on an annual basis; NOT to be used by uncertified persons working under the supervision of a certified applicator, except that uncertified persons may transport containers. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training before applying this product in-crop. If your state does not require dicamba-specific training, then the applicator must complete dicamba specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

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 intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

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 worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

Store in original container in a well-ventilated area separately from fertilizer, feed, and foodstuffs. Avoid cross-contamination with other pesticides. **Engenia® herbicide** freezes around 15° F and is stable under conditions of freezing and thawing. Product that has been frozen should be thawed and recirculated prior to use.

Pesticide Disposal

Wastes resulting from this product must be disposed of on-site or at an approved waste disposal facility. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures under **Subtitle C of the Resource Conservation and Recovery Act**. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

(continued)

STORAGE AND DISPOSAL (continued)

Container Handling (continued)

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. 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 transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Engenia® herbicide is a water-soluble herbicide that provides postemergence and moderate rate-dependent residual control of many annual broadleaf weeds. **Engenia** is also active on many biennial and perennial broadleaf weeds as well as woody brush and vines (refer to **Table 1** for weeds controlled or suppressed).

Engenia may be applied preplant, at-planting, pre-emergence, and postemergence (in-crop) for weed control in dicamba-tolerant cotton and dicamba-tolerant soybeans. The use in dicamba-tolerant crops is only allowed in the following states:

Alabama, Arizona, Arkansas, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

Engenia does not control grass weeds and must be used sequentially or tank mixed with a grass herbicide for a complete weed control program. See **Tank Mixing Information** section for important information on herbicide tank mixes or **Crop-specific Information** section(s) for recommendations on sequential programs.

Summary of Label Requirements – See Label Section for Details

Label Requirements Summary	Label Sections
Mandatory Training: <ul style="list-style-type: none"> • Prior to applying, applicator must complete dicamba-specific training. Only certified applicators may apply this product. 	<ul style="list-style-type: none"> • Training Requirements
Record Keeping: <ul style="list-style-type: none"> • Certified applicators must complete their application records within 72 hour after the application and keep records for a period of two years. 	<ul style="list-style-type: none"> • Restricted Use Pesticide Record Keeping Requirements
Application: <ul style="list-style-type: none"> • For EVERY application of Engenia® herbicide an approved pH Buffering Adjuvant must be included in the spray mixture. Refer to www.engeniatankmix.com for a list of approved pH Buffering Adjuvants. • Rate and Timing: Apply 12.8 fl ozs per acre (0.5 lb. ae dicamba) for any single application: <ul style="list-style-type: none"> - Applications to DT Cotton may only occur through July 30. DO NOT apply after July 30. A total of four applications (51.2 fl ozs per acre, 2.0 lbs ae dicamba per acre) may be made with a maximum of 12.8 fl ozs per acre per application. A maximum of two applications preemergence and two applications postemergence may be made per year. - Applications to DT Soybean may only occur through June 30. DO NOT apply after June 30. A total of four applications (51.2 fl ozs per acre, 2.0 lbs ae dicamba per acre) may be made with a maximum of 12.8 fl ozs per acre per application. A maximum of two applications preemergence and two applications postemergence may be made per year. - For details see crop-specific use directions. • Spray volume: Apply in a minimum of 15 gallons of spray solution per acre. • Tank mixing: Use only approved tank-mix products found at www.engeniatankmix.com. <ul style="list-style-type: none"> - Refer to all product labels to determine mix order or perform a mix compatibility test. 	<ul style="list-style-type: none"> • Tank Mixing Information • Specific Use Directions • Dicamba Tolerant (DT) Cotton • Dicamba Tolerant (DT) Soybean • Specific Crop Use Directions • Application Methods and Equipment • Tank Mixing Information
Application Equipment: <ul style="list-style-type: none"> • Spray system equipment cleanout: Ensure entire sprayer system is properly cleaned before and after application. • Nozzles: Use only approved nozzles and pressure as listed on www.engeniatankmix.com. • Spray boom height: Use manufacturer's recommendation for boom height or 24 inches above the target pest/crop height, whichever is smaller. • Ground speed: DO NOT exceed 15 mph. 	<ul style="list-style-type: none"> • Spray System Equipment Cleanout • Spray Drift Management
Environmental Conditions: <ul style="list-style-type: none"> • Wind speed: Apply when wind speed, measured at boom height, is 3 to 10 mph. • Inversions: DO NOT spray during an inversion; only spray between one hour after sunrise and two hours before sunset. • Rainfall: DO NOT apply this product if rain that may exceed soil field capacity and result in soil runoff is expected in the next 48 hours. 	<ul style="list-style-type: none"> • Spray Drift Management • Use Restrictions
Downwind Requirements: <ul style="list-style-type: none"> • Sensitive areas, crops and residential areas downwind: DO NOT apply if sensitive areas, crops and residential areas, as defined in this label (see Downwind Spray Buffer Areas and Sensitive Crops, Areas and Residential Areas), are adjacent downwind to the application site. • Downwind buffer: After determining that no sensitive areas, crops or residential areas are adjacent downwind, maintain a 240-ft downwind spray buffer (see Hooded Spray Booms section). 	<ul style="list-style-type: none"> • Sensitive Crops, Areas and Residential Areas • Downwind Spray Buffer Areas
Endangered Species: <ul style="list-style-type: none"> • You must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult http://www.epa.gov/espp/ or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product. 	<ul style="list-style-type: none"> • Endangered Species

Table 1. Weeds Controlled or Suppressed

Engenia® herbicide will control or suppress the following weeds when used at rates described in **Table 2**. See additional information about weeds which are known to be resistant to dicamba at **www.Resistance-Information.BASF.US**.

Common Name	Scientific Name
Annuals	
Alkanet	<i>Lithospermum arvense</i>
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Powell	<i>Amaranthus powellii</i>
Amaranth, spiny	<i>Amaranthus spinosus</i>
Aster, slender	<i>Aster subulatus</i>
Bedstraw, catchweed	<i>Galium aparine</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Broomweed, common	<i>Gutierrezia dracunculoides</i>
Buckwheat, tartary	<i>Fagopyrum tataricum</i>
Buckwheat, wild	<i>Polygonum convolvulus</i>
Buffalobur	<i>Solanum rostratum</i>
Burclover, California	<i>Medicago polymorpha</i>
Burcucumber	<i>Sicyos angulatus</i>
Buttercup, corn	<i>Ranunculus arvensis</i>
Buttercup, creeping	<i>Ranunculus repens</i>
Buttercup, roughseed	<i>Ranunculus muricatus</i>
Buttercup, western field	<i>Ranunculus occidentalis</i>
Carpetweed	<i>Mollugo verticillata</i>
Catchfly, nightflowering	<i>Silene noctiflorum</i>
Chamomile, corn	<i>Anthemis arvensis</i>
Chervil, bur	<i>Anthriscus caucalis</i>
Chickweed, common	<i>Stellaria media</i>
Clover	<i>Trifolium</i> spp.
Cockle, corn	<i>Agrostemma githago</i>
Cockle, cow	<i>Vaccaria pyramidata</i>
Cocklebur, common	<i>Xanthium strumarium</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>
Cornflower	<i>Centaurea cyanus</i>
Croton, tropic	<i>Croton glandulosus</i>
Croton, woolly	<i>Croton capitatus</i>
Daisy, English	<i>Bellis perennis</i>
Dragonhead, American	<i>Dracocephalum parviflorum</i>
Eveningprimrose, cutleaf	<i>Oenothera laciniata</i>
Falseflax, smallseed	<i>Camelina microcarpa</i>
Fleabane, hairy	<i>Conyza bonariensis</i>

(continued)

Table 1. Weeds Controlled or Suppressed (continued)

Common Name	Scientific Name
Annuals (continued)	
Flixweed	<i>Descurainia sophia</i>
Fumitory	<i>Fumaria officinalis</i>
Goosefoot, nettleleaf	<i>Chenopodium murale</i>
Hempnettle	<i>Galeopsis tetrahit</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed (Marestail)	<i>Conyza canadensis</i>
Jacob's-ladder	<i>Polemonium caeruleum</i>
Jimsonweed	<i>Datura stramonium</i>
Knawel (German moss)	<i>Scleranthus annuus</i>
Knotweed, prostrate	<i>Polygonum aviculare</i>
Kochia ²	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, common	<i>Chenopodium album</i>
Lettuce, miner's	<i>Claytonia perfoliata</i>
Lettuce, prickly	<i>Lactuca serriola</i>
Mallow, common	<i>Malva neglecta</i>
Mallow, Venice	<i>Hibiscus trionum</i>
Mayweed	<i>Anthemis cotula</i>
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>
Morningglory, tall	<i>Ipomoea purpurea</i>
Mustard, black	<i>Brassica nigra</i>
Mustard, blue	<i>Chorispora tenella</i>
Mustard, tansy	<i>Descurainia pinnata</i>
Mustard, treacle	<i>Erysimum repandum</i>
Mustard, tumble	<i>Sisymbrium altissimum</i>
Mustard, wild	<i>Sinapis arvensis</i>
Mustard, yellowtop	<i>Sinapis</i> spp.
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, cutleaf	<i>Solanum triflorum</i>
Pennycress, field	<i>Thlaspi arvense</i>
Pepperweed, Virginia	<i>Lepidium virginicum</i>
Pigweed, prostrate	<i>Amaranthus blitoides</i>
Pigweed, redroot (rough)	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Pigweed, tumble	<i>Amaranthus albus</i>
Pineappleweed	<i>Matricaria matricarioides</i>
Poorjoe	<i>Diodia teres</i>
Poppy, red horn	<i>Glaucium corniculatum</i>

(continued)

Table 1. Weeds Controlled or Suppressed (continued)

Common Name	Scientific Name
Annuals (continued)	
Puncturevine	<i>Tribulus terrestris</i>
Purslane, common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Radish, wild	<i>Raphanus raphanistrum</i>
Ragweed, common	<i>Ambrosia artemisiifolia</i>
Ragweed, giant	<i>Ambrosia trifida</i>
Ragweed, lanceleaf	<i>Ambrosia bidentata</i>
Rocket, London	<i>Sisymbrium irio</i>
Rocket, yellow	<i>Barbarea vulgaris</i>
Rubberweed, bitter	<i>Hymenoxys odorata</i>
Salsify	<i>Tragopogon porrifolius</i>
Senna, coffee	<i>Senna occidentalis</i>
Sesbania, hemp	<i>Sesbania exaltata</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
Sicklepod	<i>Cassia obtusifolia</i>
Sida, prickly (Teaweed)	<i>Sida spinosa</i>
Smartweed, green	<i>Polygonum scabrum</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Sneezeweed, bitter	<i>Helenium amarum</i>
Sowthistle, annual	<i>Sonchus oleraceus</i>
Sowthistle, spiny	<i>Sonchus asper</i>
Spanish needles	<i>Bidens bipinnata</i>
Spikeweed, common	<i>Hemizonia pungens</i>
Spurge, prostrate	<i>Chamaesyce humistrata</i>
Spurry, corn	<i>Spergula arvensis</i>
Starbur, bristly	<i>Acanthospermum hispidum</i>
Starwort, little	<i>Stellaria graminea</i>
Sumpweed, rough	<i>Iva ciliata</i>
Sunflower, common (wild)	<i>Helianthus annuus</i>
Thistle, Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp	<i>Amaranthus tuberculatus</i>
Waterprimrose, winged	<i>Ludwigia decurrens</i>
Wormwood	<i>Artemisia annua</i>
Biennials	
Burdock, common	<i>Arctium minus</i>
Carrot, wild	<i>Daucus carota</i>
Cockle, white	<i>Melandrium album</i>

(continued)

Table 1. Weeds Controlled or Suppressed (continued)

Common Name	Scientific Name
Biennials (continued)	
Eveningprimrose, common	<i>Oenothera biennis</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Gromwell	<i>Lithospermum</i> spp.
Knapweed, diffuse	<i>Centaurea diffusa</i>
Knapweed, spotted	<i>Centaurea maculosa</i>
Mallow, dwarf	<i>Malva borealis</i>
Plantain, bracted	<i>Plantago aristata</i>
Ragwort, tansy	<i>Senecio jacobaea</i>
Starthistle, yellow	<i>Centaurea solstitialis</i>
Sweetclover	<i>Melilotus</i> spp.
Teasel	<i>Dipsacus sativus</i>
Thistle, bull	<i>Cirsium vulgare</i>
Thistle, musk	<i>Carduus nutans</i>
Thistle, plumeless	<i>Carduus acanthoides</i>
Thistle, variegated (milk)	<i>Silybum marianum</i>
Perennials¹	
Alfalfa	<i>Medicago sativa</i>
Apple, tropical soda	<i>Solanum viarum</i>
Artichoke, Jerusalem	<i>Helianthus tuberosus</i>
Aster, spiny	<i>Aster spinosus</i>
Aster, whiteheath	<i>Aster pilosus</i>
Bedstraw, smooth	<i>Gallium mollugo</i>
Bindweed, field	<i>Convolvulus arvensis</i>
Bindweed, hedge	<i>Calystegia sepium</i>
Blueweed, Texas	<i>Helianthus ciliaris</i>
Bursage, woollyleaf	<i>Ambrosia grayi</i>
Buttercup, tall	<i>Ranunculus acris</i>
Campion, bladder	<i>Silene vulgaris</i>
Chickweed, field	<i>Cerastium arvense</i>
Chickweed, mouseear	<i>Cerastium vulgatum</i>
Chicory	<i>Cichorium intybus</i>
Clover, hop	<i>Trifolium aureum</i>
Dandelion, common	<i>Taraxacum officinale</i>
Dock, broadleaf (Bitterdock)	<i>Rumex obtusifolius</i>
Dock, curly	<i>Rumex crispus</i>
Dogbane, hemp	<i>Apocynum cannabinum</i>
Dogfennel (Cypressweed)	<i>Eupatorium capillifolium</i>
Fern, bracken	<i>Pteridium aquilinum</i>

(continued)

Table 1. Weeds Controlled or Suppressed (continued)

Common Name	Scientific Name
Perennials¹ (continued)	
Garlic, wild	<i>Allium vineale</i>
Goldenrod, Canada	<i>Solidago canadensis</i>
Goldenrod, Missouri	<i>Solidago missouriensis</i>
Goldenweed, common	<i>Isocoma coronopifolia</i>
Hawkweed	<i>Hieracium</i> spp.
Henbane, black	<i>Hyoscyamus niger</i>
Horsenettle, Carolina	<i>Solanum carolinense</i>
Ironweed	<i>Vernonia</i> spp.
Knapweed, black	<i>Centaurea nigra</i>
Knapweed, Russian	<i>Centaurea repens</i>
Lespedeza, sericea	<i>Lespedeza cuneata</i>
Milkweed, climbing	<i>Sarcostemma cyanchoides</i>
Milkweed, common	<i>Asclepias syriaca</i>
Milkweed, honeyvine	<i>Ampelamus albidus</i>
Milkweed, western whorled	<i>Asclepias subverticillata</i>
Nettle, stinging	<i>Urtica dioica</i>
Nightshade, silverleaf	<i>Solanum elaeagnifolium</i>
Onion, wild	<i>Allium canadense</i>
Plantain, broadleaf	<i>Plantago major</i>
Plantain, buckhorn	<i>Plantago lanceolata</i>
Pokeweed	<i>Phytolacca americana</i>
Ragweed, western	<i>Ambrosia psilostachya</i>
Redvine	<i>Brunnichia ovata</i>
Smartweed, swamp	<i>Polygonum coccineum</i>
Snakeweed, broom	<i>Gutierrezia sarothrae</i>
Sorrel, red (Sheep sorrel)	<i>Rumex acetosella</i>
Sowthistle, perennial	<i>Sonchus arvensis</i>
Spurge, leafy	<i>Euphorbia esula</i>
Sundrop	<i>Oenothera perennis</i>
Thistle, Canada	<i>Cirsium arvense</i>
Thistle, Scotch	<i>Onopordum acanthium</i>
Toadflax, Dalmatian	<i>Linaria genistifolia</i>
Trumpet creeper	<i>Campsis radicans</i>
Vetch	<i>Vicia</i> spp.
Waterhemlock, spotted	<i>Cicuta maculata</i>
Waterprimrose, creeping	<i>Ludwigia peploides</i>
Woodsorrel, creeping	<i>Oxalis corniculata</i>
Woodsorrel, yellow	<i>Oxalis stricta</i>

(continued)

Table 1. Weeds Controlled or Suppressed (continued)

Common Name	Scientific Name
Perennials¹ (continued)	
Wormwood, Louisiana	<i>Artemisia ludoviciana</i>
Yankee weed	<i>Eupatorium compositifolium</i>
Yarrow, common	<i>Achillea millefolium</i>

¹ Suppression only.² Except dicamba resistant.

Product Stewardship Recommendations

- Apply **Engenia® herbicide** to weeds 4 inches or less in size for best performance.
- Apply **Engenia** at the labeled rate to minimize the likelihood of weed resistance occurring. See **Crop-specific Information** for labeled rates by crop.
- Use **Engenia** as part of a herbicide program that includes the use of residual herbicides and herbicides with alternate sites of action to reduce resistance selection pressure.

Product Stewardship Requirements

- Select only approved nozzles that produce **extremely coarse to ultra-coarse** spray droplets. See www.engeniatankmix.com for the list of nozzles approved for use with this product.
- Use manufacturer's recommendation for boom height or 24 inches above the target pest/crop height, whichever is smaller.
- Identify areas of sensitive nontarget crops/plants and maintain proper setback distance from these areas (see **Downwind Spray Buffer Areas** and **Sensitive Crops, Areas and Residential Areas** sections for **Spray Buffer** requirements). Sensitive crops in agricultural and/or residential settings can include, but are not limited to:
 - non-DT soybeans
 - cucumber and melons (EPA **Crop Group 9**)
 - flowers
 - fruit trees
 - grapes
 - ornamentals including greenhouse-grown and shade house-grown broadleaf plants
 - peanuts
 - peas and beans (EPA **Crop Group 6**)
 - peppers, tomatoes, and other fruiting vegetables (EPA **Crop Group 8**)
 - potato
 - sweet potato
 - tobacco
- Thoroughly clean spray equipment before and after application.

Mode of Action

Dicamba, the active ingredient in **Engenia**, is a **Group 4** (WSSA) herbicide. Herbicides in this group mimic auxin (a plant hormone) resulting in a hormone imbalance in

sensitive plants that interferes with normal plant growth (e.g. cell division, cell enlargement, and protein synthesis). **Engenia® herbicide** is readily absorbed by leaves, roots, and shoots; translocates throughout the plant; and accumulates in areas of active growth to provide postemergence control of emerged weeds as well as moderate residual control of germinating weed seeds.

Any weed population may contain plants naturally resistant to **Group 4** herbicides. Weeds resistant to **Group 4** herbicides may be effectively managed using herbicide(s) from a different group and/or by using cultural or mechanical practices. Report any incidence of non-performance of this product against a particular weed species at www.EngeniaQuestions.com. Consult your local BASF representative, state cooperative extension service, professional consultants, or other qualified authority to determine appropriate actions if you suspect resistant weeds. Additional information about weeds which are known to be resistant to dicamba can be found at www.Resistance-Information.BASF.US.

Resistance Management

While weed resistance to **Group 4** herbicides is infrequent, populations of resistant biotypes are known to exist. Resistance management should be part of a diversified weed control strategy that integrates multiple options including chemical, cultural, and mechanical (tillage) control tactics. Cultural control tactics include crop rotation, proper fertilizer placement, optimum seeding rate/row spacing, and timely tillage.

To aid in the prevention of developing weeds resistant to this product, the following steps should be followed where practical:

- Start clean with tillage or an effective burndown herbicide program.
- **DO NOT** rely on a single herbicide site of action for weed control during the growing season.
- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Apply full labeled rates of **Engenia** for the most difficult-to-control weed in the field at the specified time (correct weed size) to minimize weed escapes. See **Crop-specific Information** for labeled rates by crop.
- Use of preemergence herbicides that provide soil residual control of broadleaf and grass weeds is recommended to reduce early season weed competition and allow for more timely in-crop postemergence herbicide applications.
- Avoid application of herbicides with the same site of action more than twice a season.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Indicators of possible herbicide resistance include:
 - (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - (2) a spreading patch of non-controlled plants of a particular weed species;
 - (3) surviving plants mixed with controlled individuals of the same species.

- Report any incidence of non-performance of this product against a particular weed species to your BASF retailer, representative or online at www.EngeniaQuestions.com.
- If resistance is suspected, treat weed escapes with a herbicide having a mode of action other than **Group 4** and/or use non-chemical methods to remove escapes, as is practical, with the goal of preventing further seed production.
- For more information about weeds that are known to be resistant to dicamba go to www.Resistance-Information.BASF.US.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other modes of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-**Group 4** herbicides.
- Avoid making more than two applications of **Engenia** and any other **Group 4** herbicides within a single growing season unless mixed with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Thoroughly clean plant residues from equipment before and after leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields during and after harvest to reduce weed seed production.
- Contact the local agricultural extension service, BASF representative, ag retailer or crop consultant for further guidance on weed control practices as needed.

Crop Tolerance

Crops growing under normal environmental conditions are tolerant to **Engenia** when applied according to label directions. Crop injury may occur under stressful growing conditions (e.g. low soil fertility, seedling disease, extreme hot or cold weather, excessive moisture, high soil pH, high soil salt concentration, drought).

Application Instructions

Apply **Engenia** by ground to actively growing weeds as a band or broadcast spray application for postemergence control of emerged weeds as well as moderate residual control of germinating weed seeds.

Make postemergence applications of **Engenia** when broadleaf weeds are small and actively growing. An adjuvant is recommended with **Engenia** for best postemergence activity; refer to **Tank Mixing Information** section and **Crop-specific Information** sections for details. Postemergence activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions, or when weeds are growing under drought or other stress conditions. When

targeting dense weed populations and/or larger broadleaf weeds, use higher spray volumes and a higher application rate within an application rate range.

Cultivation should be delayed until 7 days after applying **Engenia® herbicide** or a reduction in weed control may occur.

Use extreme care when applying **Engenia** to prevent injury to desirable plants. **Engenia** may cause injury to desirable sensitive plants when contacting their roots, stems, or foliage.

Application Rates

Always read and follow crop-specific use directions.

Table 2. Application Rate to Control or Suppress Target Weed by Weed Type and Growth Stage

Weed Type and Growth Stage	Rate/Acre ² (fl ozs)
Annual	
Small, actively growing (less than 4-inches tall)	12.8
Small, actively growing (less than 4-inches tall) plus moderate residual control	12.8
Biennial	
Rosette diameter 1 to 3 inches	12.8
Rosette diameter more than 3 inches	12.8
Perennial¹	
Top growth suppression	12.8
Top growth control and root suppression	12.8
¹ Engenia will suppress the top growth of herbaceous perennials and can be combined with other approved herbicides to improve control. ² DO NOT broadcast-apply more than 12.8 fl ozs/A per application. Retreatment or tank mixes may be necessary for best control of some weeds. However, sequential applications must not exceed a maximum cumulative total of 51.2 fl ozs/A of Engenia (2 lbs dicamba ae/A) per year.	

Application Methods and Equipment

Apply **Engenia** by ground. Thorough spray coverage is important for best broadleaf weed control and can be improved with adjuvant, nozzle, and spray volume selection.

Calibrate application equipment for accurate target spray volume and application rate to ensure uniform distribution of spray and to avoid spray drift to nontarget areas. Adjust equipment to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above the labeled use rates.

Engenia may be applied using water; consult crop-specific information sections of this label for other spray carrier options.

Ground Application

Banding Applications

When applying **Engenia** by banding, use the following formula to calculate the amount of herbicide and water volume needed:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \frac{\text{Broadcast rate per acre}}{\text{rate per acre}} = \frac{\text{Banding herbicide rate per acre}}{\text{rate per acre}}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \frac{\text{Broadcast volume per acre}}{\text{volume per acre}} = \frac{\text{Banding water volume per acre}}{\text{volume per acre}}$$

Broadcast Applications

Use a spray volume of 15 gallons of water or more per treated acre. Thorough coverage of existing vegetation is essential for postemergence applications; higher spray volumes may be necessary for optimum performance.

Spray System Equipment Clean-out

The applicator must ensure that the spray system used to apply **Engenia** is clean before application. Small amounts of residual ammonium sulfate (AMS) that may remain in the sprayer from uses other than dicamba applications in DT crops can increase the volatility potential of **Engenia**. Severe crop injury may occur if any **Engenia** remains in the spray equipment following application and is subsequently applied to sensitive crops. After using **Engenia**, clean all mixing and spray equipment (including tanks, pumps, lines, filters, screens, and nozzles) with a strong detergent based sprayer cleaner. Dispose of rinsate in compliance with local, state, and federal guidelines.

1. After spraying, drain the sprayer (including boom and lines). Avoid allowing the spray solution to remain in the spray boom lines overnight or for extended periods of time.
2. Flush tank, hoses, boom, and nozzles with clean water. Open boom ends and flush if so equipped.
3. Inspect and clean all strainers, screens, and filters.
4. Use commercial sprayer cleaner containing strong detergents according to the manufacturer's directions.
5. Wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines, and nozzles with the cleaning solution for at least 1 minute. Remove nozzles, screens, and strainers, and clean separately in the cleaning solution after completing the above procedure.
7. Drain pump, filter, and lines.
8. Triple rinse the complete spraying system with clean water.
9. Clean and rinse the exterior of the sprayer.
10. Appropriately dispose of all rinsate in compliance with local, state, and federal requirements.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The spray system and weather-related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making application decisions to avoid spray drift onto nontarget areas.

Applicators must follow application requirements to avoid spray drift hazards, including those found in this labeling and applicable state and local regulations and ordinances. Where states have more stringent regulations, they must be observed.

All application equipment must be properly maintained and calibrated using appropriate carriers.

DO NOT allow herbicide solution to drip, physically drift, or splash onto desirable vegetation because injury to desirable broadleaf plants could result. The following physical spray drift management requirements must be followed.

Controlling Droplets

Drift potential may be reduced by applying large droplets that provide sufficient coverage and control. Applying larger droplets can reduce drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **Temperature Inversions** and the **Wind Speed and Direction Requirements** sections).

- **Nozzle Type** - Use only approved nozzles when applying **Engenia® herbicide**. To find a list of approved nozzles visit www.engeniatankmix.com no more than seven days prior to applying **Engenia**.
- **Pressure** - **DO NOT** exceed the nozzle manufacturer's specified pressures or maximum pressures as listed for specific nozzles on www.engeniatankmix.com. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate (large orifice) nozzles instead of increasing pressure. Ensure sprayer rate controller hardware (if so equipped) does not allow pressure increases above the desired range.
- **Spray Volume** - Apply this product in a minimum of 15 gallons of spray solution per acre. Use a higher spray volume when treating dense vegetation. Higher spray volumes may also allow the use of larger nozzle orifices (sizes) which produce coarser spray droplets.
- **Equipment Ground Speed** - Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but **DO NOT** exceed a ground speed of 15 miles per hour. Slower speeds generally result in better spray coverage and deposition on the target area. It is recommended that ground speed be reduced to 5 miles per hour when making applications to the edge of the treatment area.
- **Spray Boom Height** - Use manufacturer's recommendation for boom height or 24 inches above the target pest/crop height, whichever is smaller. Automated boom height controllers are recommended with large booms to better

maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.

- **Hooded Spray Booms** - Hooded spray booms are another tool that can be used to minimize spray drift potential. **Engenia** may be applied using a hooded spray boom in combination with approved nozzles; however, the applicator must ensure the configuration is compatible with equipment used. See Hooded Spray Boom section at www.engeniatankmix.com for additional options for using an approved hooded spray boom with **Engenia**. When using an approved hooded spray boom, listed on the www.engeniatankmix.com website, the required down wind spray buffer distance in DT soybeans may be reduced to 110 feet.

Temperature Inversions

- **DO NOT** apply **Engenia** when temperature inversions exist at the field level.
- **Apply only during the following period: DO NOT** make applications at night. Applications are only permitted beginning one hour after sunrise, and ending two hours before sunset.

Temperature inversions increase drift potential by reducing atmospheric mixing and dispersion of any suspended spray mixture. Suspended spray residues can move in unpredictable directions because of 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.

Inversions begin to form as the sun sets and often continue into the morning before surface warming. Their presence can be indicated by ground fog, smoke not rising, dust hanging over a road, or presence of dew or frost. Smoke that layers and moves laterally (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Inversion conditions typically dissipate with increased winds (above 3 MPH) or when surface air begins to warm (3° F from morning low).

Downwind Spray Buffer Areas

Apply **Engenia** only when there is low potential for drift to sensitive areas (see **Definitions**). Only apply when the wind is blowing away from adjacent sensitive areas.

Spray Buffer Requirement: Applicator must always maintain a 240 foot buffer when applying this product from the downwind outer edges of the field (see **Hooded Spray Booms** section).

To maintain the required buffer zone:

- No application swath containing **Engenia** can be initiated in, or into an area that is within the applicable buffer distance.
- **Nonsensitive Crops and Areas** (see **Definitions**) - May be included in the buffer distance determination when within 240 feet of field edges (see **Hooded Spray Booms** section).

Sensitive Crops, Areas and Residential Areas

- **DO NOT** apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.
- During application and sprayer clean-out, **DO NOT** allow contact of herbicide with foliage, green stems, exposed non-woody roots of crops, and desirable plants.
- **Downwind and Shifting Winds**
 - **DO NOT** apply when wind is blowing in the direction of adjacent sensitive crops or residential areas.
 - The applicator also must be aware that **WIND DIRECTION** may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent sensitive crops or residential areas, **STOP** the application.

Survey the area before spraying: Small amounts of spray drift that may not be visible may injure sensitive broad-leaf plants. Before making an application, the applicator must survey the application site for adjacent sensitive crops and residential areas. **The applicator must consult sensitive crop registries where available.** Refer to **Sensitive Crops Awareness** section for record keeping requirements within the **RESTRICTED USE PESTICIDE RECORD KEEPING REQUIREMENTS** section.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide drift regulations.

Definitions

- **Sensitive Areas** - Bodies of water and nonresidential, uncultivated areas that may harbor sensitive plant species.
- **Sensitive Crops and Residential Areas** - Food, forage, or other plantings grown for sale, use or consumption. Sensitive crops/plants also can be present in nonagricultural settings, such as residential areas. Examples include, but are not limited to:
 - non-DT soybeans
 - cucumber and melons (EPA **Crop Group 9**)
 - flowers
 - fruit trees
 - grapes
 - ornamentals including greenhouse-grown and shade house-grown broadleaf plants
 - peanuts
 - peas and beans (EPA **Crop Group 6**)
 - peppers, tomatoes, and other fruiting vegetables (EPA **Crop Group 8**)
 - potato
 - sweet potato
 - tobacco

Plant injury could occur if contact between this product and these crops/plants occurs. See www.driftwatch.org or other sensitive crop registry websites for more information on possible sensitive sites near your application location.

• Nonsensitive Crops and Areas

1. Roads, paved or gravel surfaces, adjacent to the field.
2. Mowed grassy areas adjacent to the field.
3. Agricultural fields that have been prepared for planting.
4. Areas of bare ground from recent plowing or grading that are contiguous with the treated field.
5. Planted agricultural fields containing asparagus, corn, DT cotton, DT soybeans, sorghum, proso millet, small grains, sugarcane and other crops approved for postemergence dicamba use. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
6. Areas covered by the footprint of a building, shade house, silo, feed crib, or other man-made structure with walls and or roof.

Additional restrictions for the protection of specific sensitive areas may be required when making applications to DT cotton and DT soybeans. Use of this product in a manner inconsistent with the label may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product. Please Note: Additional endangered or threatened species obligations are listed under **Endangered Species** on this label. See **Crop-specific Information – Dicamba-tolerant (DT) Crops** section for more details regarding protection of endangered species.

Wind Speed and Direction Requirements

- **Wind Speed** - 3 to 10 mph
- **Wind Direction** - Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect drift.

Tank Mixing Information

Engenia® herbicide may only be tank mixed with products that have been tested and found by the EPA not to have an unreasonable adverse effect on the spray drift properties of **Engenia**. A list of those EPA approved products may be found at www.engeniatankmix.com.

DO NOT tank mix any product with **Engenia** unless:

1. You check the list of EPA approved products for use with **Engenia** at www.engeniatankmix.com no more than 7 days before applying **Engenia**; and

2. The intended product tank mix with **Engenia® herbicide** is identified on that list of tested and approved products; and
3. The intended product to be tank mixed with **Engenia** is not prohibited on this label.
4. **Mandatory Use** of an approved pH buffering adjuvant product and minimum use rate, such as **Sentris™ Buffering Technology** is required. A list of EPA approved pH buffering adjuvants and required minimum use rates may be found at **www.engeniatankmix.com**.
5. Some COC, HSOC and MSO adjuvants may cause a temporary crop response.
6. **DO NOT** tank mix products containing ammonium salts such as ammonium sulfate and urea ammonium nitrate (UAN) unless specifically approved for use with **Engenia** at **www.engeniatankmix.com**.
7. Hard water does not usually affect the activity of **Engenia**. Use of an approved conditioning agent should be considered when hard water (i.e. total calcium, magnesium, and iron content above 500 ppm) is used as a spray carrier.
8. Drift reduction adjuvants listed on the website above can minimize the percentage of driftable fines. However, the applicator must check with the DRA manufacturer to determine if the approved DRA will work effectively with the spray nozzle, the spray pressure, and the desired spray solution.

For an up to date and complete list of approved tank mix options with **Engenia**, visit **www.engeniatankmix.com**.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Mixing **Engenia** with postemergence grass (graminicide) herbicides may reduce the effectiveness of those products. Follow graminicide label when mixing with **Engenia** to ensure optimum weed control. Physical incompatibility, reduced weed control, or crop injury may result from mixing **Engenia** with other pesticides, additives, nutritionals, etc.

Adjuvants. BASF recommends the use of quality adjuvants with **Engenia** such as **Astonish™**, **Class Act®**, **Ridion®**, **Grounded®**, **Iconic®**, **Jackhammer™ Elite**, **R-11®**, **Strike Force®**, and **Verifact**.

Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

1. For 20 gallons per acre spray volume, use 3.3 cups (800 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
2. Add components in the sequence indicated in the following **Mixing Order** instructions using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.

3. Cap the jar and invert 10 cycles between component additions.
4. When the components have all been added to the jar, let the solution stand for 15 minutes.
5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

Mixing Order

Make sure each component is thoroughly mixed and suspended before adding tank mix partners. Except when mixing products in PVA bags, maintain constant agitation during mixing and application.

1. **Water** - Begin by agitating a thoroughly clean sprayer tank 1/2 to 3/4 full of clean water.
2. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
3. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
4. **Water-soluble products and additives (Engenia, Sentris)**
5. **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
6. **Emulsifiable concentrates** (including NIS and oil concentrate)
7. Remaining quantity of water

Maintain continuous and constant agitation throughout mixing and application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

Use Precautions

- **Stress** - Application to crops under stress because of lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures may result in crop injury.
- Use caution when tank mixing **Engenia** with approved emulsifiable concentrates (EC) or oil-based products that may increase the potential for crop injury.
- **Rainfast Period - Engenia** is rainfast 4 hours after application and weed control performance should not be reduced if unexpected rain or unintended irrigation occurs within 4 hours after application. **DO NOT** apply **Engenia** if rain is expected within 48 hours after application.

Use Restrictions

Applicator MUST ALSO follow restrictions under Crop-specific Information section(s).

- **DO NOT** apply if you have not checked www.EngeniaHerbicide.com/labels no more than 7 days before application of this product for additional labeling, including state restrictions. Where applicable, users must comply with additional requirements found on this website.
- **DO NOT** apply more than 12.8 fl ozs/A (0.5 lb dicamba ae/A) per application. **DO NOT** apply more than 25.6 fl ozs/A (1.0 lb dicamba ae/A) preplant and pre-emergence and 25.6 fl ozs/A (1.0 lb dicamba ae/A) postemergence. **DO NOT** apply more than a total of 51.2 fl ozs/A (2.0 lbs dicamba ae/A) in all applications combined per year.
- **DO NOT** apply this product aerially.
- **DO NOT** apply **Engenia** with ammonium-containing additives, conditioners, or fertilizers (e.g. AMS, UAN). Small quantities of AMS can greatly increase the volatility potential of dicamba.
- **DO NOT** apply **Engenia** if expected rainfall amount may exceed soil field capacity and result in soil runoff in the next 48 hours.
- **DO NOT** apply **Engenia** if wind speed is less than 3 mph or greater than 10 mph.
- **DO NOT** apply **Engenia** at night. **DO NOT** apply earlier than one hour after sunrise or later than two hours before sunset.
- **DO NOT** contaminate irrigation ditches or water used for domestic purposes.
- **DO NOT** apply **Engenia** through any type of irrigation system (e.g. chemigation).
- **DO NOT** tank mix **Engenia** with any product not found in the approved list at www.engeniatankmix.com.
- In DT cotton, **DO NOT** apply **Engenia** later than July 30.
- In DT soybeans, **DO NOT** apply **Engenia** later than June 30.
- **DO NOT** apply DT cotton harvest aid application of **Engenia** within 7 days of harvest.

Crop Rotation Restrictions

Use the following information to determine the required interval between **Engenia® herbicide** application and rotational crop planting as well as replanting after crop failure because of environmental factors such as drought, frost, or hail. Determine the rotational crop interval for tank mix products and use the most restrictive interval of all products applied.

Table 3. Crop Rotation Restrictions by Application Rate

Crop	Engenia (fl ozs/A)		
	≤ 6.4	9.6	12.8
	Rotational Crop Interval ¹ (days after application)		
Corn	0	0	0
Cotton, non-DT ²	21 [†]	28	42
Cotton, DT	0	0	0
Sorghum	14	21	28
Soybean, non-DT ²	14	21	28
Soybean, DT	0	0	0
Grasses ³ 30 inches or more annual precipitation	14	21	28
Grasses ³ less than 30-inches annual precipitation	21	28	42
All other crops	120	120	120

¹ **DO NOT** include time when the soil is frozen and days before receiving any required rainfall or overhead irrigation.

² Following application of **Engenia** and a minimum accumulation of 1 inch of rainfall or overhead irrigation, observe the indicated waiting interval.

³ Includes barley, oats, wheat, and other grass crops. Small grains may be planted with no waiting interval following **Engenia** applied at 3.2 fl ozs/A.

[†] **Missouri and Tennessee Only.** Following application of **Engenia**, wait until an accumulation of 1 inch of rainfall or irrigation followed by an interval of **14 days** per 6.4 fl ozs/A or less before planting cotton. This interval must be observed before planting cotton or severe crop injury may occur.

Crop-specific Information – Dicamba-tolerant (DT) Crops

Dicamba-tolerant (DT) Crops

Engenia® herbicide is EPA approved for use in DT crops in the following states:

Alabama, Arizona, Arkansas, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Within the above listed states, **Engenia** is subject to area-specific restrictions as required by <http://www.epa.gov/espp/> that must be consulted prior to making an **Engenia** application in DT cotton and DT soybeans. Prior to making an **Engenia** application in DT cotton or DT soybeans, an applicator must visit <http://www.epa.gov/espp/> to determine if there are any additional restrictions on **Engenia** use within the area to be sprayed. Nonsensitive areas defined below may be included as part of the required buffer distance.

Nonsensitive areas - The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

1. Roads, paved or gravel surfaces, adjacent to the field.
2. Mowed grassy areas adjacent to the field.
3. Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains, sugarcane and other crops approved for postemergence dicamba use. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
4. Agricultural fields that have been prepared for planting.
5. Areas of bare ground from recent plowing or grading that are contiguous with the treated field.
6. Areas covered by the footprint of a building, shade house, silo, feed crib, or other man-made structure with walls and or roof.

The following directions are specific for Engenia use in DT cotton and DT soybeans.

Depending on specific crop application directions, **Engenia** may be applied for postemergence control of emerged broadleaf weeds and/or residual control of germinating broadleaf weed seeds before crop planting (preplant and/or preseed) and after planting (preemergence, postemergence). Refer to **Table 1** for list of weeds controlled or suppressed.

Engenia may be applied preplant, at-planting, pre-emergence, and postemergence (in-crop) for weed control in DT cotton and DT soybeans.

Dicamba-tolerant (DT) Cotton

Engenia may be applied preplant surface, preemergence, or postemergence (over the top) by ground only to control or suppress many annual, biennial, and perennial broad-leaf weeds (see **Table 1**) in dicamba-tolerant (DT) cotton. If **Engenia** is applied to non-dicamba-tolerant cotton other than as directed, severe crop injury will result. For non-dicamba-tolerant cotton information, see **Cotton** section in **Crop-specific Information** section.

Cotton gin byproducts may be fed to livestock.

Application Rates and Timings

Maximum Application Rates in DT Cotton

Application Timing	Amount (fl ozs/A)
Single Preplant Preemergence Postemergence	12.8 (0.5 lb dicamba ae/A)
Total Preplant and Preemergence	25.6 (1 lb dicamba ae/A)
Total Postemergence	25.6 (1 lb dicamba ae/A)
All Applications Combined Total per Year	51.2 (2 lbs dicamba ae/A)

Application of **Engenia** may be made before and after cotton emergence. Separate sequential applications by 7 days or more. For best performance, apply **Engenia** when weeds are less than 4 inches in height and rosettes are less than 2-inches across. Timely application will improve control and reduce weed competition. Apply pre-plant, preemergence, and postemergence to DT cotton only by ground. **DO NOT** apply more than 51.2 fl ozs/A of **Engenia** per year (single growing season).

Preplant and Preemergence Applications

Engenia can be applied at 12.8 fl ozs/A before, during, or after planting DT cotton. **Engenia** will provide burndown of emerged weeds. Apply as a sequential application with other preemergence herbicides to control emerged grass weeds and other broadleaf weeds, and with a pre-emergence residual herbicide to control germinating weed seeds. Early season weed control is critical for minimizing weed competition and protecting crop yield potential.

Postemergence Applications

Apply **Engenia**® herbicide postemergence at 12.8 fl ozs/A from cotton emergence through July 30.

DO NOT apply more than 12.8 fl ozs/A in a single postemergence over-the-top application of **Engenia**. A total of two postemergence applications can be made in cotton.

For best weed control, **Engenia** applications should be made early in the season to small (less than 4-inches tall), actively growing weeds. Sequential postemergence applications may be necessary to control new weed flushes. Allow at least 7 days between applications. **DO NOT** apply **Engenia** postemergence more than twice in a year. Apply **Engenia** in a herbicide program that includes sequential application of herbicides with a different mechanism of action to control new weed regrowth.

Postemergence applications of **Engenia** mixed with some adjuvants may cause injury to DT cotton (see **Tank Mixing Information** section for details). Injury symptoms usually appear as necrotic spots on leaves. Potential for injury may be reduced when applications are made with spray volumes of at least 15 GPA and lower adjuvant rates. Symptomology is temporary with cotton recovering quickly after application.

Use with Other Herbicides

Broad-spectrum control of grass weeds or additional broadleaf weeds may require a sequential herbicide application. Before considering the use of one or more of the below recommended herbicides in a tank mix with **Engenia**, please confirm at www.engeniatankmix.com that the product is on the approved list. **Engenia** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Outlook**® herbicide
- **Prowl**® H2O herbicide
- glyphosate (e.g. **Roundup**® herbicide)

For approved tank mix options see www.engeniatankmix.com.

DT Cotton Restrictions

- **DO NOT** apply **Engenia** to non-dicamba-tolerant cotton varieties other than as directed or severe cotton injury will occur.
- **DO NOT** make more than two applications preplant or preemergence per year.
- **DO NOT** apply more than 12.8 fl ozs/A (0.5 lb ae/A) per preplant or preemergence application.
- **DO NOT** make more than two applications postemergence per year.

- **DO NOT** apply more than 12.8 fl ozs/A (0.5 lb ae/A) per postemergence application.
- **DO NOT** apply **Engenia** later than July 30.
- **DO NOT** apply more than 51.2 fl ozs/A (2 lbs ae/A) per year.
- **DO NOT** apply DT cotton harvest aid application of **Engenia** within 7 days of harvest.

Dicamba-tolerant (DT) Soybean

Engenia may be applied preplant surface, preemergence, or postemergence (over the top) by ground only to control or suppress many annual, biennial, and perennial broadleaf weeds (see **Table 1**) in dicamba-tolerant (DT) soybean.

Application Rates and Timings

Maximum Application Rates in DT Soybean

Application Timing	Amount (fl ozs/A)
Single Preplant Preemergence Postemergence	12.8 (0.5 lb dicamba ae/A)
Total Preplant and Preemergence	25.6 (1 lb dicamba ae/A)
Total Postemergence	25.6 (1 lb dicamba ae/A)
All Applications Combined Total per Year	51.2 (2 lbs dicamba ae/A)

Application of **Engenia** plus specified adjuvants (refer to **Tank Mixing Information** section for details) may be made before and after soybean emergence. Separate sequential applications by 7 days or more. For best performance, apply **Engenia** when weeds are less than 4 inches in height and rosettes are less than 2-inches across. Timely application will improve control and reduce weed competition. Apply preplant, preemergence, and postemergence to DT soybean only by ground.

Preplant and Preemergence Applications

Engenia can be applied at 12.8 fl ozs/A before, during, or after planting dicamba-tolerant soybean. **Engenia** will provide burndown of emerged weeds and moderate residual activity. Apply as a sequential application with other labeled herbicides to control emerged grass weeds and other broadleaf weeds, and with a preemergence residual herbicide to control germinating weed seeds. Early season weed control is critical for minimizing weed competition and protecting crop yield potential.

Postemergence Applications

Up to two postemergence applications using 12.8 fl ozs/A of **Engenia® herbicide** per application may be made through June 30. Allow at least 7 days between applications. **DO NOT** apply more than a maximum cumulative total of 25.6 fl ozs/A of **Engenia** postemergence.

Engenia applications should be made to small (less than 4-inches tall), actively growing weeds. Sequential postemergence applications may be necessary to control new weed flushes. For best results, apply **Engenia** in a herbicide program that includes sequential application of herbicides with a different mechanism of action to control new weed growth.

Postemergence applications of **Engenia** may cause dicamba-tolerant soybeans to wilt or droop shortly after application. Symptomology is transient, and soybeans recover quickly after application.

Use with Other Herbicides

Broad-spectrum control of grass weeds or additional broadleaf weeds may require a sequential herbicide application. Before considering the use of one or more of the below recommended herbicides in a tank mix with **Engenia**, please confirm at www.engeniatankmix.com that the product is on the approved list. **Engenia** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Optill® powered by Kixor® herbicide**
- **Outlook® herbicide**
- **Prowl® H2O herbicide**
- **Pursuit® herbicide**
- **Raptor® herbicide**
- **Sharpen® powered by Kixor® herbicide**
- **Varisto® herbicide**
- **Verdict® powered by Kixor® herbicide**
- **Zidua® herbicide**
- **Zidua® PRO powered by Kixor® herbicide**
- clethodim (e.g. **Select Max® herbicide**)
- glyphosate (e.g. **Roundup® herbicide**)

For approved tank mix options see www.engeniatankmix.com.

DT Soybean Restrictions

- **DO NOT** apply **Engenia** to non-dicamba-tolerant soybean varieties other than as directed or severe soybean injury will occur.
- **DO NOT** make more than two applications preplant or preemergence per year.
- **DO NOT** apply more than 12.8 fl ozs/A (0.5 lb ae/A) per preplant or preemergence application.
- **DO NOT** make more than two applications postemergence per year.
- **DO NOT** apply more than 12.8 fl ozs/A (0.5 lb ae/A) per postemergence application.
- **DO NOT** apply **Engenia** later than June 30.
- **DO NOT** apply more than 51.2 fl ozs/A (2 lbs ae/A) per year.
- **Soybean Forage:** Allow at least 7 days between final application and harvest or feeding of soybean forage.
- **Soybean Hay:** Allow at least 14 days between final application and harvest or feeding of soybean hay.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

1108

Referenced Herbicides (tradename, EPA Reg. No., ai):

Outlook® herbicide, 7969-156, dimethenamid
Prowl® H2O herbicide, 241-418, pendimethalin
Optill® powered by Kixor® herbicide, 7969-280, imazethapyr/saflufenacil
Pursuit® herbicide, 241-310, imazethapyr
Raptor® herbicide, 241-379, imazamox
Sharpen® powered by Kixor® herbicide, 7969-278, saflufenacil
Varisto® herbicide, 241-447, bentazon/imazamox
Verdict® powered by Kixor® herbicide, 7969-279, dimethenamid/saflufenacil
Zidua® herbicide, 7969-338, pyroxasulfone
Zidua® PRO powered by Kixor® herbicide, 7969-365, saflufenacil/pyroxasulfone
Roundup® herbicide, 524-549, glyphosate
Select Max® herbicide, 59639-132, clethodim

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Class Act, Iconic, and Ridion are registered trademarks of Winfield Solutions, LLC.

Grounded is a registered trademark of Helena Chemical Company.

Jackhammer is a trademark of West Central, Inc.

R-11 is a registered trademark of Wilbur-Ellis Holdings, Inc.

Roundup is a registered trademark of Monsanto Technology LLC.

Select Max is a registered trademark of Valent U.S.A. Corporation.

Strike Force is a registered trademark of Loveland Products, Inc.

Verifact is a registered trademark of Invictis Crop Care, LLC.

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APPENDIX

RESTRICTED USE PESTICIDE

To be used by certified applicators only; NOT to be used by uncertified persons working under the supervision of a certified applicator, except that uncertified persons may transport containers.

Dicamba	Group	4	Herbicide
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Engenia®

Herbicide

For use in Dicamba-tolerant cotton and Dicamba-tolerant soybeans

This labeling expires December 20, 2025, and must not be used or distributed after this date.

Active Ingredient*:

N,N-Bis-(3-aminopropyl)methylamine salt of 3,6-dichloro-*o*-anisic acid 60.8%

Other Ingredients: 39.2%

Total: 100.0%

* Contains 48.38% dicamba (5 pounds acid equivalent per gallon or 600 grams per liter)

EPA Reg. No. 7969-472

CAUTION/PRECAUCION

KEEP OUT OF REACH OF CHILDREN

Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- **Refer to the Engenia® herbicide container label, EPA Reg. No. 7969-472, for complete Directions For Use and all applicable restrictions and precautions. This label and the Engenia container label must be in the possession of the user at the time of pesticide application.**
- **In the event that there are any inconsistencies with the directions for use between this and any other labeling for this product, follow the directions for use on this labeling.**

Use Restrictions

- **DO NOT** apply if you have not checked **www.EngeniaHerbicide.com/labels** no more than 7 days before application of this product for additional labeling, including state restrictions. Where applicable, users must comply with additional requirements found on this website.
- Record Keeping Requirement: Maintain a copy of the product label and any labeling that supplements the product label.

RESTRICTED USE PESTICIDE

The user must check **EngeniaHerbicide.com/labels** no more than 7 days before application of this product for additional labeling, including state restrictions. Where applicable, users must comply with additional requirements found on this website.

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

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Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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RESTRICTED USE PESTICIDE

To be used by certified applicators only; NOT to be used by uncertified persons working under the supervision of a certified applicator, except that uncertified persons may transport containers.

Additional Iowa-specific restrictions as found on
EngeniaHerbicide.com/labels

For Distribution and Use Only in the State of Iowa

Engenia®

Herbicide

This labeling expires December 20, 2025, and must not be used or distributed after this date.

Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- **Refer to the Engenia® herbicide container label, EPA Reg. No. 7969-472, for complete Directions For Use and all applicable restrictions and precautions. Use of Engenia according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for Engenia. Read the label affixed to the Engenia container before applying. This labeling and the Engenia container label must be in the possession of the user at the time of pesticide application.**
- In the event that there are any inconsistencies with the directions for use between this and any other labeling for this product, follow the directions for use on this labeling.

Application Directions

In order to apply **Engenia** in Iowa, the following requirement applies:

- **DO NOT** apply after June 20.

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RESTRICTED USE PESTICIDE

To be used by certified applicators only; NOT to be used by uncertified persons working under the supervision of a certified applicator, except that uncertified persons may transport containers.

Additional Minnesota-specific restrictions as found on
EngeniaHerbicide.com/labels

For Distribution and Use Only in the State of Minnesota

Engenia[®]

Herbicide

This labeling expires December 20, 2025, and must not be used or distributed after this date.

Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- **Refer to the Engenia[®] herbicide container label, EPA Reg. No. 7969-472, for complete Directions For Use and all applicable restrictions and precautions. Use of Engenia according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for Engenia. Read the label affixed to the Engenia container before applying. This labeling and the Engenia container label must be in the possession of the user at the time of pesticide application.**
- In the event that there are any inconsistencies with the directions for use between this and any other labeling for this product, follow the directions for use on this labeling.

Application Directions

In order to apply **Engenia** in Minnesota, the following requirements apply:

- **DO NOT** apply south of interstate 94 after June 12.
- **DO NOT** apply north of interstate 94 after June 30.
- **Statewide Restriction: DO NOT** apply if the air temperature of the field at the time of application is over 85 degrees Fahrenheit or if the National Weather Service's forecasted high temperature for the nearest available location for the day exceeds 85 degrees Fahrenheit. Forecasted temperature must be recorded at the start of the application.

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007969-00472.20220104d.**NVA 2021-04-0385-0248**

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