



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number: **91234-407** Date of Issuance: **1/7/26**

NOTICE OF PESTICIDE:

Registration

Reregistration

(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

A3121.05

Name and Address of Registrant (include ZIP Code):

Atticus, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. You have 18 months from the date of registration to provide these data.

Continues page 2

Signature of Approving Official:


for

Kevin Ulrich (for)
Nathan Mellor, Chief
Fungicide Herbicide Branch, Registration Division (7505T)

Date:

1/7/26

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 91234-407."
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and 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) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your 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 our 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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 01/12/2024
- Alternate CSF 1 dated 01/12/2024

If you have any questions, please contact Hector Escobar at 202-566-1371 or at escobar.hector@epa.gov

Enclosure: Stamped Label

{Note to reviewer: [Text] in brackets denotes optional or explanatory language}

{Note to reviewer: {Text} in braces denotes where in the final label text will appear}

BOOKLET FRONT PANEL LANGUAGE}

A3121.05TM

[Alternate Brand Name: Cutzen]

[Contains imazapyr, the active ingredient used in Chopper® [Herbicide].]

ACTIVE INGREDIENT:

(% by weight)

Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid)* 27.6%

OTHER INGREDIENTS: 72.4%

TOTAL 100.0%

*Equivalent to 22.6% (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) or 2 pounds acid per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN

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 inside label booklet for First Aid, [additional] Precautionary Statements, and Directions for Use.]

[See below for additional Precautionary Statements]

[A3121.05 is not manufactured, or distributed by BASF Professional and Specialty Solutions, seller of Chopper® [Herbicide].]

EPA Reg. No.: 91234-XXX

EPA Est. No.:

Net Contents:

Manufactured for:

Atticus, LLC

940 NW Cary Parkway, Suite 200
Cary, NC 27513

A C C E P T E D

Jan 07, 2026

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 91234-407

{LANGUAGE INSIDE BOOKLET}

FIRST AID	
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
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 the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
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 mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
HOT LINE 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 SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

For Chemical Emergency:

Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTRAC Day or Night

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Follow 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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

ENGINEERING CONTROLS FOR AERIAL APPLICATION

Pilots must use an enclosed cockpit that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

USER SAFETY RECOMMENDATIONS

Users should:

- 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

This product is toxic to plants. Drift and run-off may be hazardous to plants in water adjacent to treated areas. **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. See **DIRECTIONS FOR USE** for additional precautions and requirements. This herbicide is phytotoxic at extremely low concentrations. Non-target plants may be adversely affected from drift.

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of **A3121.05** should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers. **DO NOT** mix, store, or apply **A3121.05** or spray solutions of **A3121.05** in unlined steel (except stainless steel) containers or spray tanks. Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Noncrop weed control is not within the scope of the Worker Protection Standard. See the **PRODUCT INFORMATION** section of this label for a description of noncrop sites.

DO NOT enter or allow others to enter treated areas until sprays have dried.

PRODUCT INFORMATION

A3121.05 is an aqueous solution intended to be mixed with water, diesel oil, or recommended seed oils and penetrating oils for various applications to control undesirable vegetation in forestry sites managed for timber production. It can be used along forestry roads, for site preparation, for conifer release from woody and herbaceous competition, and for stump and cut-stem treatment of unwanted woody vegetation. **A3121.05** may also be applied on forestry sites where temporary surface water may collect, such as in potholes, between planting beds, in equipment ruts, etc., created by forest management activities [except in the states of California and New York]. **A3121.05** may be used to control undesirable vegetation along non-irrigation ditch banks and for the establishment and maintenance of wildlife openings [except in the state of California].

A3121.05 may be used to treat drainage ditches, intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present [except in the states of California and New York]. If drainage ditches contain water, only the edges of the ditch may be treated. **A3121.05** may also be applied to marshes, swamps and bogs after water has receded, as well as seasonally dry flood deltas [except in the states of California and New York].

In addition, **A3121.05** aids in spot treatment control of brush found in grass pasture, rangeland and other non-cropland areas including fencerows, non-irrigation ditch banks, petroleum tank farms, pumping installations, rights of way (utility, highway, railroad and pipeline), storage areas, utility plants, and areas within these sites that are grazed or cut for hay. Weeds found on shoulders or in cracks and crevices of roads and beneath pavements can be controlled if **A3121.05** is applied with asphalt and asphalt slurries during paving operations or normal maintenance to prevent weeds from invading paved roadways.

DO NOT APPLY to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams, rivers and canals.

A3121.05 controls vegetation by absorption through foliage and roots, from which it is rapidly translocated throughout the plant, where it accumulates in rapidly-growing meristematic tissue. Treated plants stop growing soon after spray treatment. Chlorosis (yellowing of plant tissue) first appears in the newest leaves and necrosis spreads from this point. In perennials, **A3121.05** is translocated into and kills the roots and underground storage tissues to prevent most regrowth. Chlorosis and tissue necrosis may not be apparent in some plant species for several weeks after application and may take months for various woody plants, brush and trees.

RESTRICTIONS

- **DO NOT** use on food or feed crops.
- **DO NOT** use on Christmas trees.
- **DO NOT** apply to the inside of ditches used to transport irrigation water. Keep away from fertilizers, insecticides, fungicides, and seeds.
- **DO NOT** apply or drain or flush equipment on or near desirable plants, or onto areas where their roots may extend, or in locations where the chemical may be washed or moved into contact within their dripline.

Clean application equipment immediately after using this product. Flush tank, pump, hoses and booms with several charges of water after removing nozzle tips and screens. Clean nozzle tips and screens separately.

The use of treated waters on irrigated crops within 120 days of treatment is prohibited.

SPRAY DRIFT MANAGEMENT

The following information is provided as general guidance for managing spray drift. Specific use recommendations for **A3121.05** may differ, depending on the application technique used and the vegetation management objective.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-

and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Spray drift from applying this product may result in damage to sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to these and other adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, or non-target crops) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity, temperature inversions.

To minimize spray drift, the applicator should be familiar with and take into account the following drift reduction advisory information. Additional information may be available from state enforcement agencies or the Cooperative Extension on the application of this product.

The best drift management strategy and most effective way to reduce drift potential are to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **WIND, TEMPERATURE AND HUMIDITY**, and **TEMPERATURE INVERSIONS**, below). See additional restrictions below in the sections **Managing Spray Drift From Aerial Applications** and **Managing Spray Drift From Ground Boom Applications**.

CONTROLLING DROPLET SIZE

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

APPLICATION HEIGHT

Making applications at the lowest possible height (aircraft, ground driven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

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

WIND

Drift potential is lowest between wind speeds of 3 - 10 mph. Do not apply if wind speeds are less than 3 mph or greater than 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. See additional restrictions below in the sections **Managing Spray Drift From Aerial Applications** and **Managing Spray Drift From Ground Boom Applications**.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

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

WIND EROSION

Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

AERIAL APPLICATION METHODS AND EQUIPMENT

Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated areas and to avoid spray drift.

AERIAL APPLICATIONS

Applicators are required to use a Coarse or coarser droplet size (ASABE S641) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater for release heights below 10 feet; Applicators are required to use a Very Coarse or coarser droplet size or, if specifically using a spinning atomizer nozzle, applicators are required to use a VMD of 475 microns or greater for release heights above 10 feet; Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size.

Applicators are required to use upwind swath displacement.

The boom length must not exceed 60% of the wingspan or 90% of the rotor blade diameter to reduce spray drift.

Applications with wind speeds less than 3 mph and with speeds greater than 10 mph are prohibited.

Applications into temperature inversions are prohibited.

GROUND APPLICATION (BROADCAST)

Use 5 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

GROUND BOOM APPLICATIONS

Applicators are required to use a nozzle height below 4 feet above the ground or plant canopy and coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater.

Applications with wind speeds greater than 10 mph are prohibited.

Applications into temperature inversions are prohibited.

{NOTE TO REVIEWER: Registrant may add the following state-driven statements as required throughout.

[Not Registered for Use by (Insert State)] [Not Registered for Use on (Insert Commodity) by (Insert State)]
[Not Registered for Sale, Sale Into, Distribution and/or Use in (Insert County Name(s)) Counties of (Insert State)]}{

WEEDS CONTROLLED

A3121.05 provides postemergence control and some residual control of the following target weed species. Degree of control is both species and rate dependent.

GRASSES

The species of annual and perennial grasses controlled by **A3121.05** include the following:

Annual bluegrass (<i>Poa annua</i>)	Junglerice (<i>Echinochloa colonum</i>)
Bahiagrass (<i>Paspalum notatum</i>)	Kentucky bluegrass (<i>Poa pratensis</i>)
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Lovegrass (<i>Eragrostis</i> spp.)
Beardgrass (<i>Andropogon</i> spp.)	Orchardgrass (<i>Dactylis glomerata</i>)
Bermudagrass (<i>Cynodon dactylon</i>)	<i>Panicum</i> spp.
Big bluestem (<i>Andropogon gerardii</i>)	Paragrass (<i>Brachiaria mutica</i>)
Broadleaf signalgrass (<i>Urochloa platyphylla</i>)	Phragmites (<i>Phragmites australis</i>)
Canada bluegrass (<i>Poa compressa</i>)	Prairie cordgrass (<i>Spartina pectinata</i>)
Cattail (<i>Typha</i> spp.)	Prairie threeawn (<i>Aristida oligantha</i>)
Cheat (<i>Bromus secalinus</i>)	Quackgrass (<i>Agropyron repens</i>)
Cogongrass (<i>Imperata cylindrica</i>) ¹	Reed canary grass (<i>Phalaris arundinacea</i>)
Crabgrass (<i>Digitaria</i> spp.)	Saltgrass (<i>Distichlis stricta</i>)
Crowfootgrass (<i>Dactyloctenium aegyptium</i>)	Sand dropseed (<i>Sporobolus cryptandrus</i>)
Dallisgrass (<i>Paspalum dilatatum</i>)	Sandbur (<i>Cenchrus</i> spp.)
Downy brome (<i>Bromus tectorum</i>)	Smooth brome (<i>Bromus inermis</i>)
Fall panicum (<i>Panicum dichotomiflorum</i>)	Sprangletop (<i>Leptochloa</i> spp.)
Feathertop (<i>Pennisetum villosum</i>)	Timothy (<i>Phleum pratense</i>)
Fescue (<i>Festuca</i> spp.)	Torpedograss (<i>Panicum repens</i>)
Foxtail (<i>Setaria</i> spp.)	Vaseygrass (<i>Paspalum urvillei</i>)
Giant reed (<i>Arundo donax</i>)	Wild barley (<i>Hordeum</i> spp.)
Goosegrass (<i>Eleusine indica</i>)	Wild oats (<i>Avena fatua</i>)
Guineagrass (<i>Panicum maximum</i>)	Wirestem muhly (<i>Muhlenbergia frondosa</i>)
Italian ryegrass (<i>Lolium multiflorum</i>)	Witchgrass (<i>Panicum capillare</i>)
Itchgrass (<i>Rottboellia exaltata</i>)	Woolly cupgrass (<i>Eriochloa villosa</i>)
Johnsongrass (<i>Sorghum halepense</i>)	

¹Use minimum of 48 oz. per acre.

BROADLEAF WEEDS

The species of annual and perennial broadleaf weeds controlled by **A3121.05** include the following:

Arrowwood (<i>Pluchea sericea</i>)	Common chickweed (<i>Stellaria media</i>)
Broom snakeweed (<i>Gutierrezia sarothrae</i>)	Common ragweed (<i>Ambrosia artemisiifolia</i>)
Bull Thistle (<i>Cirsium vulgare</i>)	Cudweed (<i>Gnaphalium</i> spp.)
Burclover (<i>Medicago</i> spp.)	Dandelion (<i>Taraxacum officinale</i>)
Burdock (<i>Arctium</i> spp.)	Desert camelthorn (<i>Alhagi pseudalhagi</i>)
Camphorweed (<i>Heterotheca subaxillaris</i>)	Diffuse knapweed (<i>Centaurea diffusa</i>)
Carolina geranium (<i>Geranium carolinianum</i>)	Dock (<i>Rumex</i> spp.)
Carpetweed (<i>Mullugo verticillata</i>)	Dogfennel (<i>Eupatorium capillifolium</i>)
Chickweed, mouseear (<i>Cerastium vulgatum</i>)	Fiddleneck (<i>Amsinckia intermedia</i>)
Clover (<i>Trifolium</i> spp.)	Filaree (<i>Erodium</i> spp.)
Cocklebur (<i>Xanthium strumarium</i>)	Fleabane (<i>Erigeron</i> spp.)

Giant ragweed (<i>Ambrosia trifida</i>)	Rocket, London (<i>Sisymbrium irio</i>)
Goldenrod (<i>Solidago</i> spp.)	Rush skeletonweed (<i>Chondrilla juncea</i>)
Gray rabbitbrush (<i>Chrysothamnus nauseosus</i>)	Russian knapweed (<i>Centaurea repens</i>)
Henbit (<i>Lamium aplexicaule</i>)	Russian thistle (<i>Salsola kali</i>)
Hoary vervain (<i>Verbena stricta</i>)	Saltbush (<i>Atriplex</i> spp.)
Horseweed (<i>Conzya canadensis</i>)	Shepherd's purse (<i>Capsella bursa-pastoris</i>)
Indian mustard (<i>Brassica juncea</i>)	Silverleaf nightshade (<i>Solanum elaeagnifolium</i>)
Japanese bamboo/knotweed (<i>Polygonum cuspidatum</i>)	Smartweed (<i>Polygonum</i> spp.)
Knotweed, prostrate (<i>Polygonum aviculare</i>)	Sorrell (<i>Rumex</i> spp.)
Kochia (<i>Kochia scoparia</i>)	Sowthistle (<i>Sonchus</i> spp.)
Lambsquarters (<i>Chenopodium album</i>)	Spurge, annual (<i>Euphorbia</i> spp.)
Little mallow (<i>Malva parviflora</i>)	Stinging nettle (<i>Urtica dioica</i>)
Milkweed (<i>Asclepias</i> spp.)	Sunflower (<i>Helianthus</i> spp.)
Miners lettuce (<i>Montia perfoliata</i>)	Sweet clover (<i>Melilotus</i> spp.)
Mullein (<i>Verbascum</i> spp.)	Tansymustard (<i>Descurainia pinnata</i>)
Nettleleaf goosefoot (<i>Chenopodium murale</i>)	Texas thistle (<i>Cirsium texanum</i>)
Oxeye daisy (<i>Chrysanthemum leucanthemum</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
Pepperweed (<i>Lepidium</i> spp.)	Western ragweed (<i>Ambrosia psilostachya</i>)
Pigweed (<i>Amaranthus</i> spp.)	Wild carrot (<i>Daucus carota</i>)
Plantain (<i>Plantago</i> spp.)	Wild lettuce (<i>Lactuca</i> spp.)
Pokeweed (<i>Phytolacca americana</i>)	Wild parsnip (<i>Pastinaca sativa</i>)
Primrose (<i>Oenothera kunthiana</i>)	Wild turnip (<i>Brassica campestris</i>)
Puncturevine (<i>Tribulus terrestris</i>)	Woollyleaf bursage (<i>Ambrosia grayi</i>)
Purple loosestrife (<i>Lythrum salicaria</i>)	Yellow starthistle (<i>Centaurea solstitialis</i>)
Purslane (<i>Portulaca</i> spp.)	Yellow woodsorrel (<i>Oxalis stricta</i>)
Pusley, Florida (<i>Richardia scabra</i>)	

VINES AND BRAMBLES

A3121.05 controls the following species of vines and brambles:

Field bindweed (<i>Convolvulus arvensis</i>)	Trumpet creeper (<i>Campsis radicans</i>)
Greenbriar (<i>Smilax</i> spp.)	Virginia creeper (<i>Parthenocissus quinquefolia</i>)
Hedge bindweed (<i>Calystegia sequium</i>)	Wild buckwheat (<i>Polygonum convolvulus</i>)
Honeysuckle (<i>Lonicera</i> spp.) ¹	Wild grape (<i>Vitis</i> spp.)
Kudzu (<i>Pueraria lobata</i>) ^{1,2}	Wild rose (<i>Rosa</i> spp.) ¹ Including
Morning glory (<i>Ipomoea</i> spp.)	Multiflora rose (<i>Rosa multiflora</i>)
Poison ivy (<i>Rhus radicans</i>)	Macartney rose (<i>Rosa bracteata</i>)
Redvine (<i>Brunnichia cirrhosa</i>)	

¹Use higher labeled rates.

²Apply in a minimum of 75 GPA – More than one application may be required to control established stands.

WOODY BRUSH AND TREES

Woody brush and trees controlled by **A3121.05** include the following:

Alder (<i>Alnus</i> spp.)	Madrone (<i>Arbutus menziesii</i>)
American beech (<i>Fagus grandifolia</i>)	Manzanita, greenleaf (<i>Arctostaphylos patula</i>) ⁴
Ash (<i>Fraxinus</i> spp.) ¹	Maple (<i>Acer</i> spp.)
Aspen (<i>Populus</i> spp.)	Melaleuca (<i>Melaleuca quinquenervia</i>)
Australian pine (<i>Casuarina equisetifolia</i>) ⁵	Mulberry (<i>Morus</i> spp.) ^{1,3}
Autumn olive (<i>Elaeagnus umbellata</i>)	Oak (<i>Quercus</i> spp.) ^{1,3}
Bald cypress (<i>Taxodium distichum</i>) ⁴	Persimmon (<i>Diospyros virginiana</i>) ²
Bigleaf maple (<i>Acer macrophyllum</i>) ¹	Poison oak (<i>Rhus diversiloba</i>)
Birch (<i>Betula</i> spp.) ⁵	Popcorn-tree (<i>Sapium sebiferum</i>)
Black locust (<i>Robinia pseudoacacia</i>) ⁵	Poplar (<i>Populus</i> spp.) ²
Black oak (<i>Quercus kelloggii</i>)	Privet (<i>Ligustrum vulgare</i>)
Blackgum (<i>Nyssa sylvatica</i>) ²	Red alder (<i>Alnus rubra</i>)
Boxelder (<i>Acer negundo</i>)	Red maple (<i>Acer rubrum</i>)
Brazilian peppertree (<i>Schinus terebinthifolius</i>)	Russian olive (<i>Eleagnus angustifolia</i>)
Ceanothis (<i>Ceanothis</i> spp.)	Saltcedar (<i>Tamarix pentandra</i>)
Cherry (<i>Prunus</i> spp.) ^{1,2}	Sassafras (<i>Sassafras albidum</i>)
Chinaberry (<i>Melia azedarach</i>)	Scotch broom (<i>Cytisus scoparius</i>) ⁵
Chinese tallow-tree (<i>Sapium sebiferum</i>)	Sourwood (<i>Oxydendrum arboreum</i>) ²
Chinquapin (<i>Castanopsis chrysophylla</i>) ⁴	Sumac (<i>Rhus</i> spp.)
Cottonwood (<i>Populus</i> spp.)	Sweetbay magnolia (<i>Magnolia virginiana</i>) ^{4,5}
Cypress (<i>Taxodium</i> spp.)	Sweetgum (<i>Liquidambar styraciflua</i>)
Dogwood (<i>Cornus</i> spp.) ¹	Sycamore (<i>Platanus occidentalis</i>)
Elderberry (<i>Sambucus</i> spp.) ⁵	Tanoak (<i>Lithocarpus densiflorus</i>) ^{1,4,5}
Elm (<i>Ulmus</i>) ⁵	Titi (<i>Cyrilla racemiflora</i>) ^{1,4}
Eucalyptus (<i>Eucalyptus</i> spp.)	Tree of heaven (<i>Ailanthus altissima</i>) ⁵
Hawthorn (<i>Crataegus</i> spp.)	Vaccinium spp. Including
Hazel (<i>Corylus comuta</i>) ⁵	Blueberry (<i>Vaccinium</i> spp.)
Hickory (<i>Carya</i> spp.) ¹	Sparkleberry (<i>Vaccinium arboreum</i>)
Holly (<i>Ilex</i> spp.) ^{1,4} Including	Waxmyrtle (<i>Myrica californica</i>) ^{4,5}
Gallberry (<i>Ilex glabra</i>) ^{4,5}	(<i>Myrica cerifera</i>) ^{4,5}
Tall gallberry (<i>Ilex coriacea</i>) ⁴	Willow (<i>Salix</i> spp.)
Yaupon (<i>Ilex vomitoria</i>) ⁴	Yellow poplar (<i>Linodendron tulipifera</i>) ¹
Honeylocust (<i>Gleditsia triacanthos</i>) ⁵	
Huckleberry (<i>Gaylussacia</i> spp.)	
Lyonia spp. Including	
Fetterbush (<i>Lyonia lucida</i>)	
Staggerbush (<i>Lyonia mariana</i>)	

¹Use higher labeled rates

²Best control with applications prior to formation of fall leaf color

³The degree of control may be species dependent

⁴Oil emulsion carrier is recommended

⁵Tank-mix with an herbicide containing triclopyr [such as Garlon 4] as a basal or cut stump treatment

MIXING AND APPLICATION INSTRUCTIONS FOR SITE PREPARATION

Enhanced brownout for burning and improved control of brush and grasses may be achieved by applying **A3121.05** in an oil emulsion carrier containing 12% to 50% (by volume) recommended oil diluent. Methylated or ethylated seed oils containing at least 50% esterified seed oil by volume are also recommended. Thoroughly mix **A3121.05** into the water portion of the carrier, then add the oil and continue mixing to obtain a uniform emulsion. Use the higher label rates of **A3121.05** and higher spray volumes when applying to particularly dense or multi-layered canopies of hardwood stands, or difficult-to-control species. Make applications during the growing season, beginning in the spring after full leaf expansion of the target weed or brush has occurred and complete applications before leaf drop in the fall.

Tank mixes may be necessary for chemical control of conifers and other species that are tolerant to **A3121.05**. Observe all precautions and restrictions on the product labels. Always follow the most restrictive label. Combinations with other products labeled for forest site preparation may kill certain plants such as legumes and blackberry which are desirable for wildlife habitat. Before tank-mixing **A3121.05** with other products, herbicides, carrier oils, etc., always test compatibility in small containers first. Maintain adequate agitation with all **A3121.05** emulsion mixtures to prevent phase separation.

DO NOT plant seedlings of black spruce (*Picea mariana*) or white spruce (*Picea glauca*) on sites to which **A3121.05** has been broadcast for site preparation or into the treated zone of spot or banded treatments for three months following application or injury may occur.

HELICOPTER SPRAY EQUIPMENT

Thoroughly mix the listed amount of **A3121.05** in 5 to 20 gallons total spray carrier per acre and apply uniformly with properly calibrated helicopter equipment. Use a nonionic surfactant to improve weed control. A drift control agent may be used at its recommended label rate. An anti-foam agent may be added, if needed. Exercise all precautions to minimize or eliminate spray drift. Avoid applications during windy or gusty conditions. Use of a Microfoil™ boom, Thru-Valve™ boom, raindrop nozzles, controlled droplet booms and nozzle configurations is recommended. Maintain adequate buffer zones to minimize potential impacts to desirable vegetation.

IMPORTANT: DO NOT make applications by fixed wing aircraft.

Thoroughly clean mixing and application equipment by thoroughly flushing with water immediately after using this product. Prolonged exposure of uncoated/unpainted steel (except stainless steel) surfaces to this product may result in corrosion and failure of the exposed part. Maintaining painted surfaces may prevent corrosion.

GROUND EQUIPMENT

Thoroughly mix and apply the listed amount of **A3121.05** in 5 to 40 gallons total spray carrier per acre for mechanical or backpack applications. Use a nonionic surfactant to enhance weed control. A drift control agent and an anti-foam agent may also be added at the recommended label rates, if needed. If desired, a spray pattern indicator may be used at the recommended label rate. To minimize spray drift, select proper nozzles to avoid spraying a fine mist, use pressures less than 50 psi and **DO NOT** spray under gusty or windy conditions (also refer to **SPRAY DRIFT MANAGEMENT** section). Maintain adequate buffer zones to minimize potential impacts to desirable vegetation.

For best results, apply the spray solution to uniformly cover the foliage of the undesirable vegetation to be controlled.

Clean mixing and application equipment immediately after using this product by thoroughly flushing with water.

CONIFER SITE PREPARATION TREATMENTS

A3121.05 will control the grasses, broadleaf weeds, vines and brambles, and woody brush and trees listed above when applied as a forest site preparation treatment before planting the following conifer crop species:

Crop Species	Rate (fl. oz./A)
Loblolly Pine (<i>Pinus taeda</i>)	48 - 80 (0.75 – 1.25 lb. ae)
Loblolly X Pitch Hybrid	48 - 80 (0.75 – 1.25 lb. ae)
Longleaf Pine (<i>Pinus palustris</i>)	48 - 80 (0.75 – 1.25 lb. ae)
Shortleaf Pine (<i>Pinus echinata</i>)	48 - 80 (0.75 – 1.25 lb. ae)
Virginia Pine (<i>Pinus virginiana</i>)	48 - 80 (0.75 – 1.25 lb. ae)
Slash Pine (<i>Pinus elliottii</i>)	40 - 64 (0.63 – 1.00 lb. ae)
Douglas-Fir (<i>Pseudotsuga menziesii</i>)	24 - 48 (0.38 – 0.75 lb. ae)
Western Hemlock (<i>Tsuga heterophylla</i>)	24 - 48 (0.38 – 0.75 lb. ae)
Coastal Redwood (<i>Sequoia sempervirens</i>)	24 - 48 (0.38 – 0.75 lb. ae)
California Red Fir (<i>Abies magnifica</i>)	24 - 40 (0.38 – 1.00 lb. ae)
California White Fir (<i>Abies concolor</i>)	24 - 40 (0.38 – 1.00 lb. ae)
Jack Pine (<i>Pinus banksiana</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Lodgepole Pine (<i>Pinus contorta</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Pitch Pine (<i>Pinus rigida</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Ponderosa Pine (<i>Pinus ponderosa</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Sugar Pine (<i>Pinus lambertiana</i>)	24 - 32 (0.38 – 0.50 lb. ae)
White Pine (<i>Pinus strobus</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Black Spruce (<i>Picea mariana</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Red Spruce (<i>Picea rubens</i>)	24 - 32 (0.38 – 0.50 lb. ae)
White Spruce (<i>Picea glauca</i>)	24 - 32 (0.38 – 0.50 lb. ae)

Broadcast the listed rate of **A3121.05** per acre as a foliar spray for long-term control of the labeled woody plants and residual control of herbaceous weeds. Herbaceous grasses and broadleaf weeds will be controlled within 4 - 6 weeks after treatment and may provide fuel to facilitate a site preparation burn, if desired, to control conifers or other species tolerant to the herbicide.

For tracts to be planted with loblolly, loblolly x pitch hybrid, longleaf pine, shortleaf pine, Virginia pine and slash pine, apply **A3121.05** at 64 fl. oz./A (1.00 lb. ae/A) on areas that have little to no re-sprouting vegetation following recent management activities such as harvesting, mechanical shearing, burning, piling or bedding. Apply this treatment after September 1.

HARDWOOD SITE PREPARATION TREATMENTS

For site preparation before planting hardwood species in the southeast and gulf coast states (Virginia to Texas), apply **A3121.05** at 48 fl. oz./A (0.75 lb. ae/A) before the end of July. Application in an emulsion carrier with a minimum of 12% oil is recommended. To avoid injury to hardwood seedlings planted after the site preparation treatment, **DO NOT** plant hardwood seedlings before January of the year following site preparation.

DIRECTED FOLIAR APPLICATIONS FOR CONIFER RELEASE

Apply **A3121.05** as a directed spray using water or oil emulsion carrier to control and suppress the labeled brush and weed species. Directed sprays may be made using low carrier volumes (typically 10 gallons total finished spray per acre or less) in stands of conifers (see below) of all ages by targeting the unwanted vegetation and avoiding spray contact to the conifers. **DO NOT** exceed the maximum rates listed for the conifer species below.

Crop Species	Rate (fl. oz.)
Loblolly Pine (<i>Pinus taeda</i>)	24 - 40 (0.38 – 1.00 lb. ae)
Loblolly X Pitch Hybrid	24 - 40 (0.38 – 1.00 lb. ae)
Virginia Pine (<i>Pinus virginiana</i>)	24 - 40 (0.38 – 1.00 lb. ae)
Longleaf Pine (<i>Pinus palustris</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Pitch Pine (<i>Pinus rigida</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Shortleaf Pine (<i>Pinus echinata</i>)	24 - 32 (0.38 – 0.50 lb. ae)
Slash Pine (<i>Pinus elliottii</i>)	24 - 32 (0.38 – 0.50 lb. ae)
White Pine (<i>Pinus strobus</i>)	16 - 32 (0.25 – 0.50 lb. ae)
Lodgepole Pine (<i>Pinus contorta</i>)	16 - 24 (0.25 – 0.50 lb. ae)
Douglas-Fir (<i>Pseudotsuga menziesii</i>)	16 - 24 (0.25 – 0.50 lb. ae)
Jack Pine (<i>Pinus banksiana</i>)	12 - 24 (0.19 – 0.50 lb. ae)
Black Spruce (<i>Picea mariana</i>)	12 - 24 (0.19 – 0.50 lb. ae)
Red Spruce (<i>Picea rubens</i>)	12 - 24 (0.19 – 0.50 lb. ae)
White Spruce (<i>Picea glauca</i>)	12 - 24 (0.19 – 0.50 lb. ae)

Generally, for directed or spot spray foliar applications, use 10% **A3121.05** in water. For brush species with thick leaf cuticles or difficult-to-control species, apply **A3121.05** in an oil emulsion, using a recommended oil diluent at 12% - 50% by volume. Apply the spray solution to at least 2/3 of each hardwood crown using backpack sprayers or handheld equipment. **DO NOT** spray to the point of runoff and avoid overspray onto conifers. For low volume foliar applications to control big leaf maple, use a 5% (by volume) **A3121.05** solution or emulsion.

Some minor conifer growth inhibition (height) may be observed when release treatments are made during periods of active conifer growth. To minimize potential growth inhibition, apply conifer release treatments late in the growing season after formation of conifer resting buds. To avoid potential conifer injury, **DO NOT** apply **A3121.05** when conifers are under stress that may reduce plant vigor due to drought, diseases, animal or winter injury, etc. Avoid direct spray contact to desired plant species as injury may occur. Injury may occur to non-target or desirable hardwoods or conifers if they extend from the same root system or their root systems are grafted to those of treated trees or if their roots extend into the treated zone.

BAG AND BROADCAST APPLICATIONS FOR CONIFER RELEASE

In Douglas-fir and Ponderosa pine stands, broadcast **A3121.05** at up to 32 fl. oz./A (0.50 lb. ae/A) when the trees have been covered with bags before application to prevent overspray onto conifer foliage. For improved control of brush species, particularly evergreens, add a suitable seed oil at 5% - 12% (by volume) to the spray solution. **DO NOT** use this treatment on sites with coarse-textured soils (e.g., decomposed granite, pumice, sandy or rocky sites) or low levels of soil organic matter (generally 5% or less) unless substantial conifer growth inhibition and/or mortality is acceptable.

LATE ROTATION VEGETATION CONTROL IN WESTERN CONIFERS

In California, the Pacific Northwest and inland Northwest, **A3121.05** may be applied aerially at up to 48 fl. oz./A (0.75 lb. ae/A) in at least 15 GPA to conifer stands intended for harvesting the year following treatment. For improved control of brush species, particularly evergreens, add a suitable seed oil at 5% - 12% (by volume) to the spray solution. **DO NOT** use this treatment if conifer injury or mortality is unacceptable since substantial conifer injury or mortality can occur.

UNDERSTORY BROADCAST APPLICATIONS FOR MID-ROTATION RELEASE

A3121.05 may be broadcast by ground or handheld equipment to control understory brush and suppress undesirable trees below the conifer canopy within stands of the species listed below. Apply **A3121.05** in water or oil emulsion carrier so as to minimize spray contact to the crowns of crop trees. **DO NOT** exceed the maximum rates listed for the conifer species below.

Crop Species	Rate (fl. oz./A)
Loblolly Pine (<i>Pinus taeda</i>)	64 (1.00 lb. ae)
Loblolly X Pitch Hybrid	64 (1.00 lb. ae)
Virginia Pine (<i>Pinus virginiana</i>)	64 (1.00 lb. ae)
Longleaf Pine (<i>Pinus palustris</i>)	32 (0.50 lb. ae)
Pitch Pine (<i>Pinus rigida</i>)	32 (0.50 lb. ae)
Shortleaf Pine (<i>Pinus echinata</i>)	32 (0.50 lb. ae)
Slash Pine (<i>Pinus elliottii</i>)	32 (0.50 lb. ae)

CUT STUMP TREATMENTS

MIXING

Mix 8 - 16 fl. oz. (0.13 – 0.25 lb. ae) of **A3121.05** in one gallon of water, diesel oil, or penetrating oil. **A3121.05** may be tank-mixed with herbicides containing triclopyr [such as Garlon® 3A or Garlon 4], picloram [such as Tordon® K], metsulfuron methyl [such as Escort®], or glyphosate [such as Roundup®] to control labeled species. If temperatures are such that freezing of the spray mixture may occur, antifreeze may be added according to manufacturer's label to prevent freezing. The use of a surfactant or penetrating agent may improve uptake through partially callused cambium tissue.

APPLICATION

Spray or brush the **A3121.05** solution onto the cambium area of the freshly cut target stumps. Thoroughly wet the entire cambium area (the wood next to the bark of the stump). Applications can be made anytime during the year except during periods of heavy sap flow in the spring. **DO NOT** over apply so as to cause run-off or puddling of spray solution.

TREE INJECTION TREATMENTS

No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

MIXING

Mix 8 - 12 fl. oz. (0.13 – 0.19 lb. ae) of **A3121.05** in one gallon of water. If temperatures are such that freezing of the spray mixture may occur, antifreeze may be added according to manufacturer's label to prevent freezing.

APPLICATION

Use standard injection equipment to apply 1 mL of **A3121.05** solution at each injection site around the tree with no more than one inch intervals between cut edges. Insure that the injector completely penetrates the bark at each injection site.

FRILL OR GIRDLE TREATMENTS

MIXING

Mix 8 - 12 fl. oz. (0.13 – 0.19 lb. ae) of **A3121.05** in one gallon of water, diesel oil, or a penetrating oil. If temperatures are such that freezing of the spray mixture may occur, antifreeze may be added according to manufacturer's label to prevent freezing.

APPLICATION

Use a hatchet, machete, or similar implement to make cuts through the bark around the tree at intervals no more than two inches between cut edges. Spray or brush **A3121.05** solution into each cut until thoroughly wet.

CUT STUBBLE

MIXING

Mix 1 to 2 pints (0.25 – 0.50 lb. ae) of **A3121.05** in 2.5 gallons of basal or other penetrating oil and dilute with water to a total volume of 50 gallons. This amount of spray solution will treat 1 acre.

APPLICATION

Apply **A3121.05** to soil and brush stumps any time up to 14 days after mechanical mowing or cutting of brush has been completed. For optimum suppression or control from resprouting, allow some regrowth of brush to occur before application. A tank mix product may be added, provided that the product does not prohibit such mixing. When tank mixing, always follow all restrictions and precautions on the tank mix product labels, and follow the most restrictive label instructions for all products used. A tank mix of **A3121.05** with other brush control or suppression herbicides [(such as Garlon 4 or Tordon K)] should be mixed with penetrating oils (5% v/v) to improve absorption into bark and exposed roots.

NOTE: Temporary injury to vegetative ground cover and severe injury or death of desirable trees may occur from root uptake of this product after a direct soil application.

USE WITH ASPHALT AND PAVED SURFACES

MIXING

Use 3 quarts (1.50 lb. ae) **A3121.05** per acre with MC 30, MC 70, RC 70, and SC 70 asphalts. If other asphalt types are used, an emulsifier may be required to ensure adequate mixing of the asphalt with **A3121.05**. Ensure that the required amount of **A3121.05** is thoroughly mixed in with the asphalt immediately prior to application. Do not allow the mixture to exceed 150°C and do not allow the mixture to stand.

APPLICATION

Apply immediately after mixing to areas near shoulders of roads, along and under guardrails, and in cracks and crevices of paved roadways.

THINLINE BASAL AND STEM APPLICATIONS

MIXING

Mix 24 - 48 fl. oz. (0.38 – 0.75 lb. ae) of **A3121.05** in one gallon of diesel oil or penetrating oil. Maintain uniform mixtures with frequent agitation.

APPLICATION

Apply **A3121.05** as a thinline basal or arcing application to the stems of susceptible species such as big leaf maple (*Acer macrophyllum*), willow (*Salix* spp.) and Eucalyptus (*Eucalyptus* spp.) with a stem ground line diameter of 3 inches or less. Direct a thin line of **A3121.05** oil mixture to the stems beginning a few feet from the ground and descending toward the base of the tree making a zig-zag motion. **DO NOT** over-apply so as to cause run-off or puddling of spray solution.

LOW VOLUME BASAL BARK TREATMENTS

MIXING

Mix 8 - 12 fl. oz. (0.13 – 0.19 lb. ae) of **A3121.05** in one gallon of diesel oil or penetrating oil. Maintain uniform mixtures with frequent agitation.

APPLICATION

For mixed brush species with up to 4 inch stem diameter at breast height, apply **A3121.05** oil mixture to wet the lower 12 - 18 inches of stems, including the root collar area. **DO NOT** over-apply so as to cause run-off or puddling of spray solution.

LOW VOLUME FOLIAR APPLICATIONS

MIXING

Mix 3% - 5% **A3121.05** in water and adjuvant or in penetrating oil.

APPLICATION

For small brush, apply **A3121.05** down onto the crown to cover approximately 70% of the plant foliage. For larger brush apply **A3121.05** to thoroughly cover the crown and at least two sides of the plant. Use the higher rate of **A3121.05** (5%) in areas containing sassafras, oak, hickory, cherry, and maples or in the southern 2/3's of the U.S.A tank-mix of 3% **A3121.05** + an herbicide containing triclopyr [such as Garlon 4] is effective in the Northeastern U.S. To control black locust, honey locust, hackberry, elms and other species listed on both the **A3121.05** and the tank mix partner [(Garlon 4)] labels. Apply a tank-mix of 3% - 5% **A3121.05** plus 15% - 20% triclopyr containing herbicide [such as Garlon 4] in basal oil.

SPRAY SOLUTION MIXING GUIDE FOR LOW VOLUME FOLIAR APPLICATIONS

AMOUNT OF SPRAY SOLUTION BEING PREPARED (Gallons)	DESIRED CONCENTRATION (Fluid Volume)			
	A3121.05		Triclopyr-Containing Herbicide [(Garlon 4)]	
	3%	5%	15%	20%
1	3.8 fl. oz. (0.06 lb. ae)	6.4 fl. oz. (0.10 lb. ae)	19.2 fl. oz.	25.6 fl. oz.
3	11.5 fl. oz. (0.18 lb. ae)	19.2 fl. oz. (0.30 lb. ae)	57.6 fl. oz.	76.8 fl. oz.
4	15.4 fl. oz. (0.24 lb. ae)	25.6 fl. oz. (0.40 lb. ae)	76.8 fl. oz.	102.4 fl. oz.
5	19.2 fl. oz. (0.30 lb. ae)	32.0 fl. oz. (0.50 lb. ae)	96.0 fl. oz.	1.0 gallon
50	1.5 gallons (3.00 lb. ae)	2.5 gallons (5.00 lb. ae)	7.5 gallons	10.0 gallons
100	3.0 gallons (6.00 lb. ae)	5.0 gallons (10.00 lb. ae)	15.0 gallons	20.0 gallons

INVERT EMULSIONS

A3121.05 can be applied as an invert emulsion, a viscous water-in-oil emulsion intended to minimize spray drift and run-off and to enhance herbicide deposition onto the target foliage. The spray emulsion may be formed in a single tank (batch mixing) or injected (in-line mixing). Consult the invert chemical label for proper mixing directions. **DO NOT** apply more than 3 quarts (1.5 lb. ae) **A3121.05** per Acre.

GRASS PASTURE AND RANGELAND SPOT TREATMENT OF WEEDS

Make spot applications of **A3121.05** to undesirable vegetation in grass pasture and rangeland at rates up to 48 fl. oz. (0.75 lb. ae) product per treated acre. Use any of the ground application methods for vegetation control specified on this label. Do not apply more than one-tenth of the area to be grazed or cut for hay. **DO NOT** apply more than 48 fl. oz. (0.75 lb. ae) per acre per year.

GRAZING AND HAYING RESTRICTIONS

- Do not treat more than one tenth of the area to be cut for hay or grazed.
- **DO NOT** cut forage grass for hay until seven days after the **A3121.05** application.

INSTRUCTIONS FOR RANGELAND USE

A3121.05 will control undesirable vegetation on rangeland to meet the following vegetative management objectives:

1. Control of undesirable plant species such as those that are non-native, invasive and noxious.
2. Control of undesirable vegetation during establishment of desirable rangeland plant species.
3. Control of undesirable vegetation during re-establishment of desirable rangeland vegetation after a fire.
4. Control of undesirable vegetation for purposes of wildfire fuel reduction.
5. Release of existing desirable rangeland plant communities from the competition from undesirable plant species.
6. Control of undesirable vegetation to improve wildlife habitat.

To ensure the protection of threatened and endangered plants when applying **A3121.05** to rangeland:

1. Federal agencies must follow NEPA regulations to ensure protection of threatened and endangered plants.
2. State agencies must work with the Fish and Wildlife Service or the Service's designated state conservation agency to ensure protection of threatened and endangered plants.
3. Other organizations or individuals must operate under a Habitat Conservation Plan if threatened or endangered plants are known to be present on the land to be treated.

Refer to other sections of this label for specific use directions for the desired rangeland vegetation management objective.

Make applications of **A3121.05** only to a given rangeland acre when specific weeds become problematic. Long term control of undesirable weed species ultimately depends on the successful use of land management practices that promote the growth and sustainability of desirable rangeland plant species.

ROTATIONAL CROP RESTRICTIONS

Do not plant rotational crops until twelve months after the **A3121.05** application and only if a successful field bioassay has been conducted. To conduct a field bioassay, plant the intended rotational crop in a small section of a previously treated grass pasture/rangeland in which the grass was grown to maturity. When selecting the previously treated area in which to conduct the viability test, include low areas and knolls and sites with a range of soil types and pH. A successful field bioassay will result in no crop injury which means that the intended rotational crop may be planted the following year.

In most circumstances, **A3121.05**, used according to the label directions, will result in normal growth of rotational crops. Rotational crop injury is possible since a variety of factors (environmental and agronomic) exist that make it impossible to eliminate all risks associated with the use of **A3121.05**.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area. **DO NOT** store below 10°F.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

[For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse 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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

[For plastic containers > 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

[Refillable container (275 gallon & bulk): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. 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 percent 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.]

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

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{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

A3121.05TM

[Alternate Brand Name: Cutzen]

[Contains imazapyr, the active ingredient used in Chopper® [Herbicide].]

ACTIVE INGREDIENT: (% by weight)

Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid)* 27.6%

OTHER INGREDIENTS: 72.4%

TOTAL 100.0%

*Equivalent to 22.6% (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) or 2 pounds acid per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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.)

FIRST AID	
If in eyes:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If on skin or clothing:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
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 mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
HOT LINE 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 SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

For Chemical Emergency:

Spill, Leak, Fire, Exposure, or Accident, Call CHEMTRAC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS: This product is toxic to plants. Drift and run-off may be hazardous to plants in water adjacent to treated areas. **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. See Directions for Use for additional precautions and requirements. This herbicide is phytotoxic at extremely low concentrations. Non-target plants may be adversely affected from drift.

PHYSICAL OR CHEMICAL HAZARDS: Spray solutions of A3121.05 should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers. **DO NOT** mix, store, or apply A3121.05 or spray solutions of A3121.05 in unlined steel (except stainless steel) containers or spray tanks. Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area. **DO NOT** store below 10°F.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

[For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse 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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

[For plastic containers > 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

[Refillable container (275 gallon & bulk): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. 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 percent 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.]

See inside label booklet for additional Precautionary Statements and Directions for Use.

[A3121.05 is not manufactured, or distributed by BASF Professional and Specialty Solutions, seller of Chopper® [Herbicide].]

Manufactured for:

Atticus, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

EPA Reg. No.: 91234-XX

EPA Est. No.: _____

NET CONTENTS: _____

{Optional Marketing graphics}

