

11000

13 Nov 87

From:

To:

Via: AC/S Training and Operations

Subj: CONTROL OF VEGETATION IN IMPACT AREA



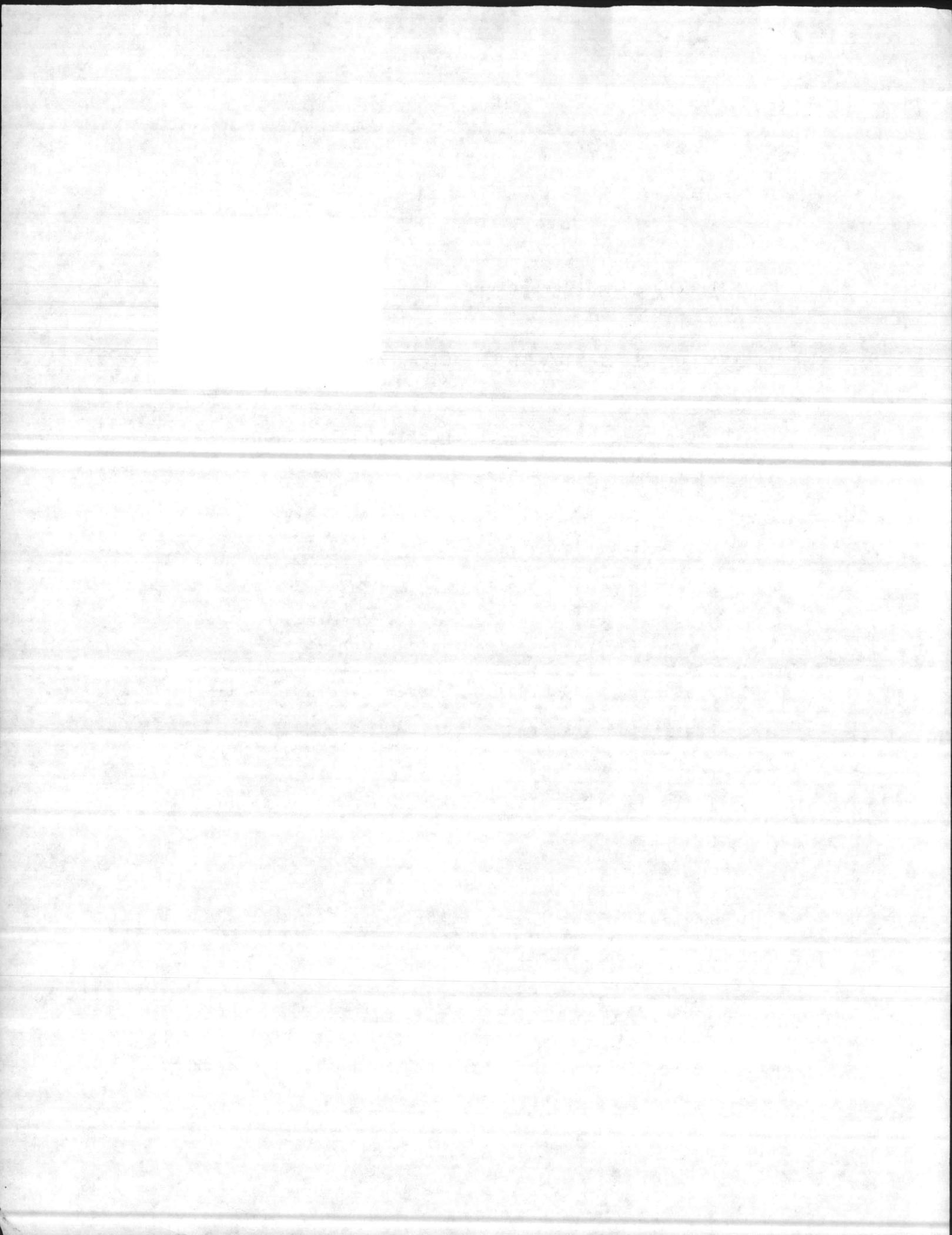
Ref: (a) CO, Lant Div, Nav Fac Eng Com ltr 2032ET:HCE:357C
over 11000 dtd 25 Apr 84

Encl: (1) CO, Lant Div, Nav Fac Eng Com ltr 2032ET:HCE:357C
over 11000 dtd 25 Apr 84
(2) U.S. Fish and Wildlife Service Recommended Habitat
Protection Area G-10
(3) U.S. Fish and Wildlife Service Recommended Habitat
Protection Area K-2

1. The Vegetation in the impact areas aboard the base is causing
(3) major problems:

A. It obscures vision for artillery forward observers
calling in fire on targets.

B. It prevents reasonable safe access for EOD personnel to
conduct Range Clearance and Ordnance Disposal Operations.



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Encl: (1) CO, Lant Div, Nav Fac Eng Com ltr 2032ET:HCE:357C
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(2) U.S. Fish and Wildlife Service Recommended Habitat
Protection Area G-10

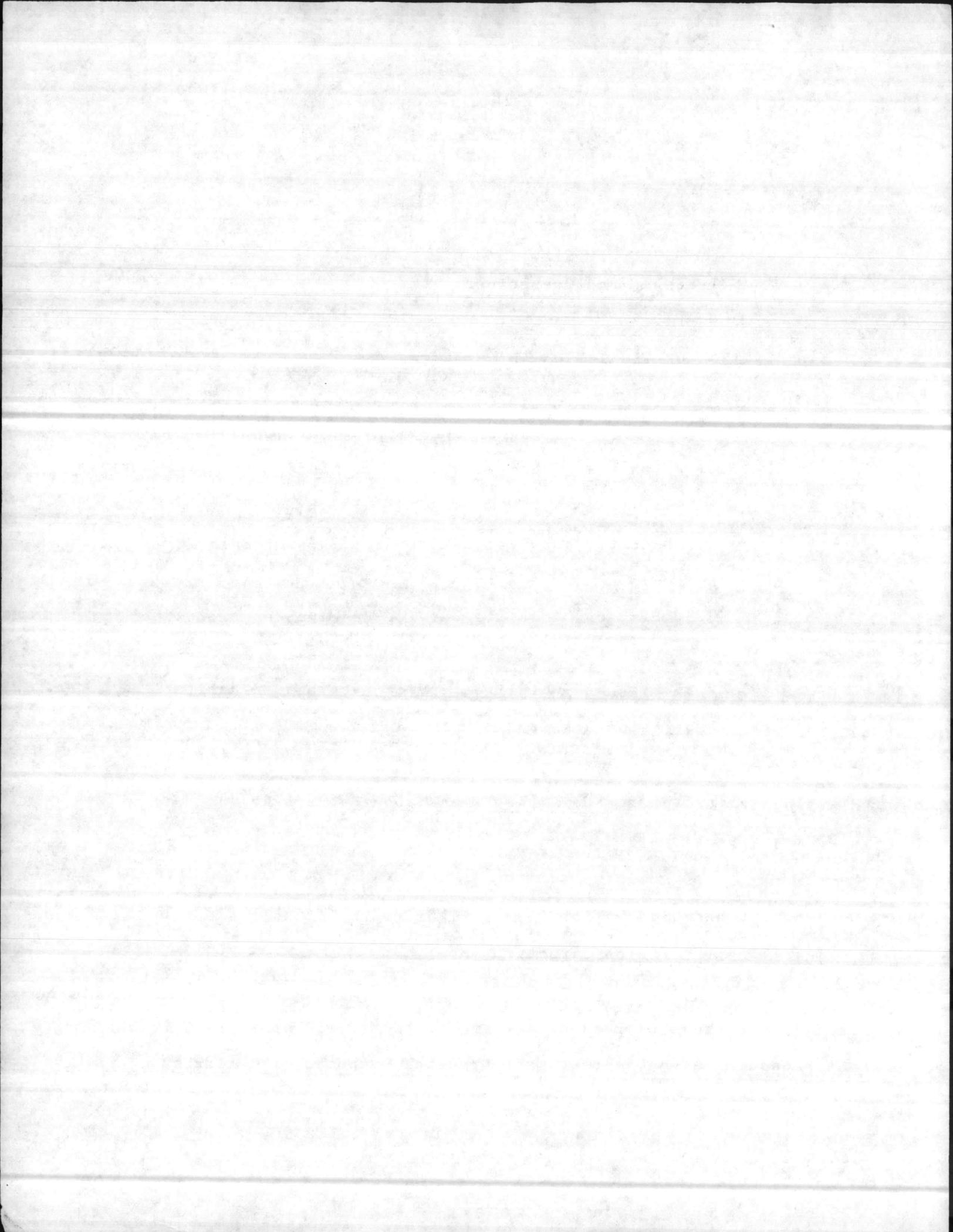
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Protection Area K-2

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(3) major problems:

A. It obscures vision for artillery forward observers
calling in fire on targets.

B. It prevents reasonable safe access for EOD personnel to
conduct Range Clearance and Ordnance Disposal Operations.



C. It prevents maintenance personnel from repairing or replacing targets.

2. During FY85, approximately (1,300) acres were cleared in G-10, for \$41,948. In K-2 approximately (1,600) acres were cleared for \$83,591. There was an additional cost of \$10,000, expended to bring in Explosive Ordnance Disposal (EOD) personnel from other U.S.M.C. units and other services to conduct extensive ordnance clearance operations. These operations were conducted over a (7) month period, resulting in extended periods of closure for both G-10 and K-2.

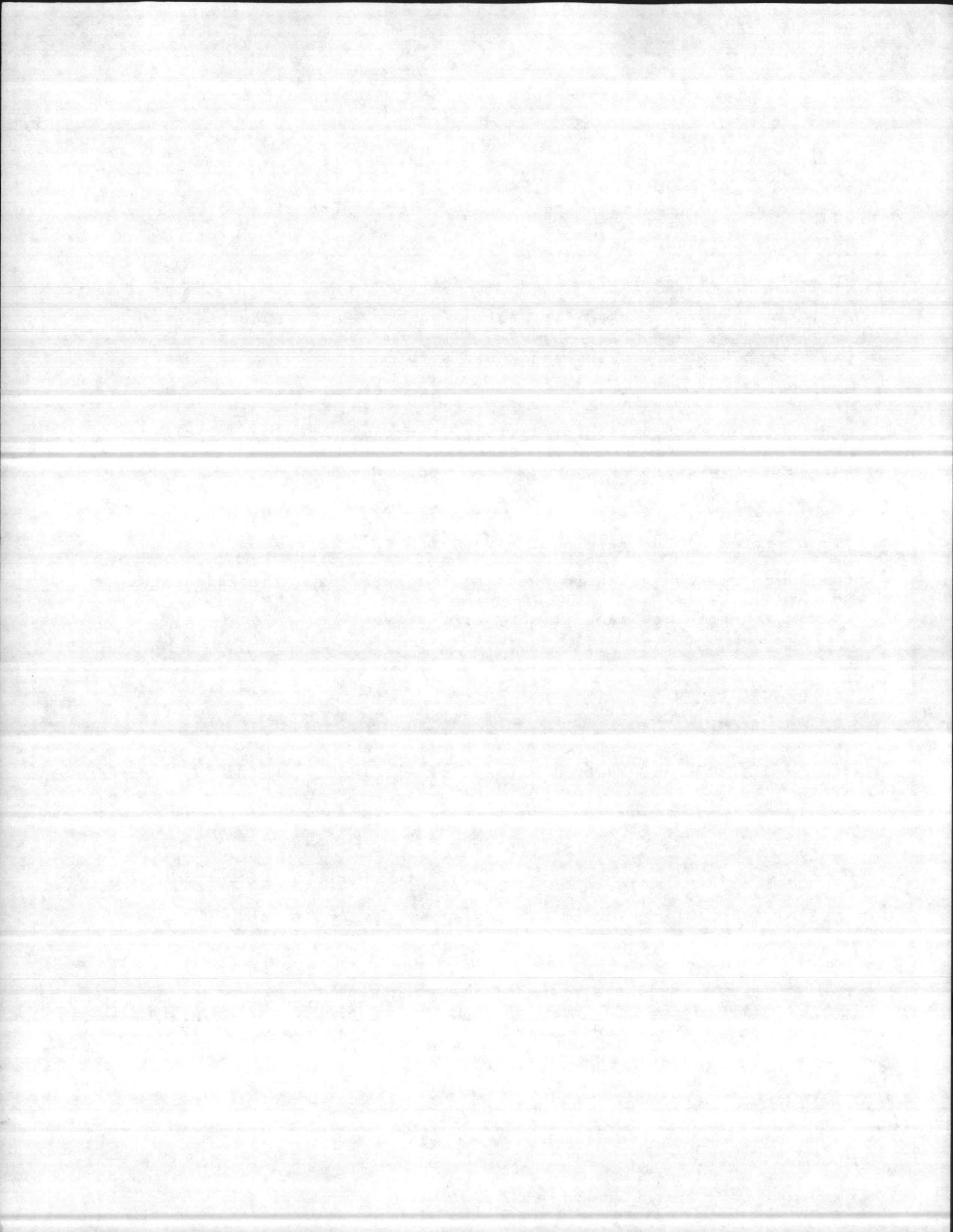
3. A review of the reference reveals that, at one time, serious consideration was given to the use of herbicides. The advantages to using herbicides make it very attractive.

A. Minimum down time for ranges

B. Personnel need not work in impact areas - Increased Safety.

C. Provides a manageable solution to this problem.

4. It is requested that your office determine the necessary courses of action to obtain approval and apply herbicides to control vegetation.



5. The following areas are listed for consideration:

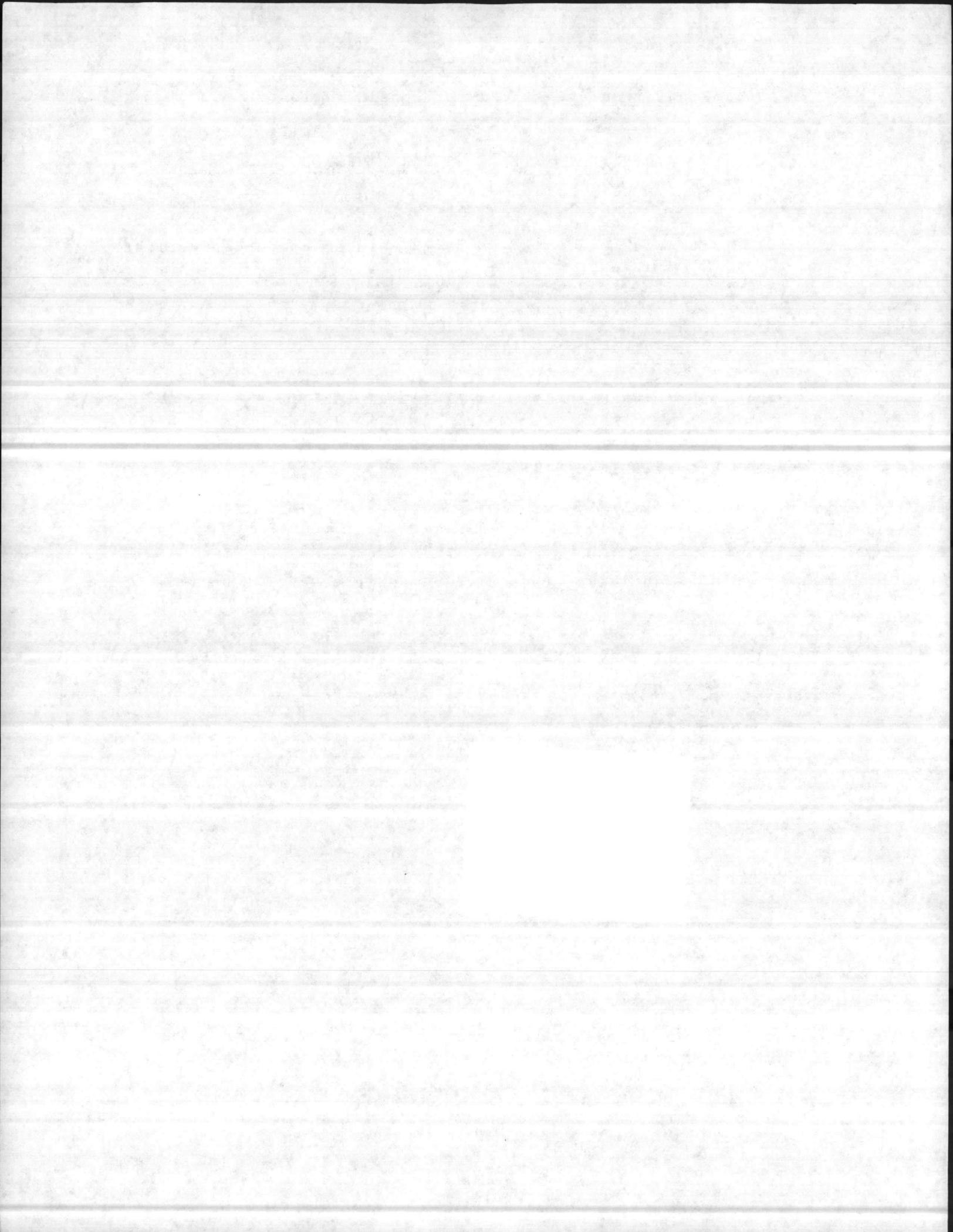
<u>AREA</u>	<u>SQUARE ACREAGE</u>
G-10 Impact Area	5,779 Minus Woodpecker Habitat*
K-2 Impact Area	3,470 Minus Woodpecker Habitat**
G-5, 6, and 7 Impact Areas	1,321
Freeman's Creek Minefield	18

Note: * See enclosure (2); circles indicate exclusion Area

** See enclosure (3); circles indicate exclusion area

6. In order to provide some immediate relief from the trees in the southern area of G-10. It is requested that approval be obtained to cut down approximately () acres of trees, to increase visibility.

How many acres
Do you want to
cut?

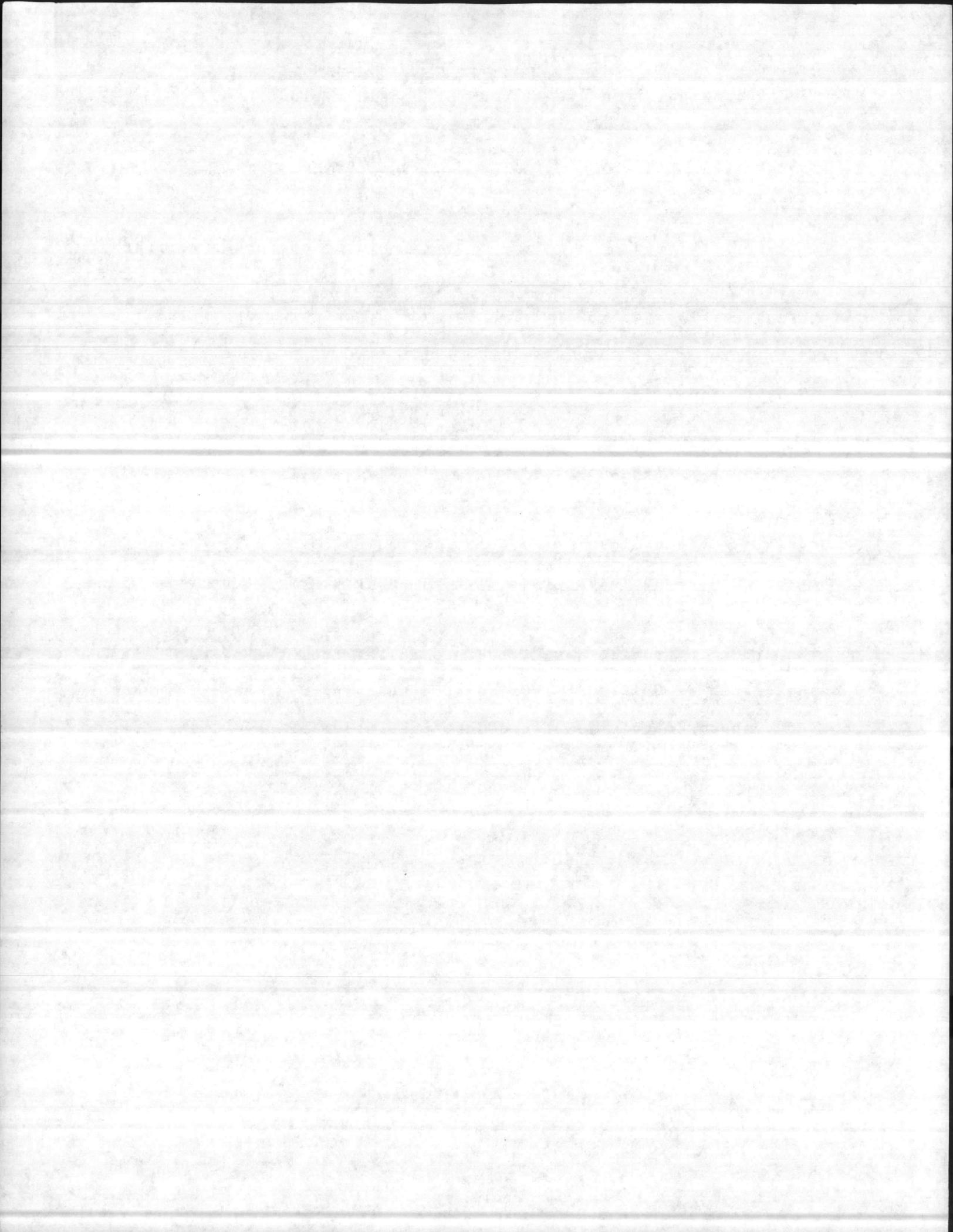


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<u>AREA</u>	<u>SQUARE ACREAGE</u>
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DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511

TELEPHONE NO.

AV564-9613

IN REPLY REFER TO:

2032ET:HCE:357c
11000

25 APR 1984

From: Commander, Atlantic Division, Naval Facilities Engineering Command

To: Commanding General, Marine Corps Base, Camp Lejeune

Subj: Feasibility Study: Vegetation Control of G-10 Impact Area

Ref: (a) CG MCB CAMP LEJEUNE ltr FAC/REA/hf 6280 of 3 Oct 1983
(b) Meeting btwn CAMP LEJEUNE (COL Stokes and Staff)/
LANTNAVFACENGOM (R. Warren and H. Eacho) of 13 March 1984
(c) FONECON btwn CAMP LEJEUNE (R. Alexander)/
LANTNAVFACENGCOM (H. Eacho) of 16 Apr 1984

Encl: (1) Primary Vegetation on OP-2, 3 and 5 Vista Areas and the
G-10 Impact Area including Map of Dominant Vegetation
Species
(2) Alternatives List: Improving Line of Sight from OP
Areas to G-10 Impact Area
(3) Herbicides Survey (including cost estimates) and
Management Recommendations

1. Reference (a) requested the development of the subject Feasibility Study for the use of herbicides as a means to remove vegetative obstructions from the G-10 Impact Area and its buffer zone, thereby restoring visibility of bombing targets.

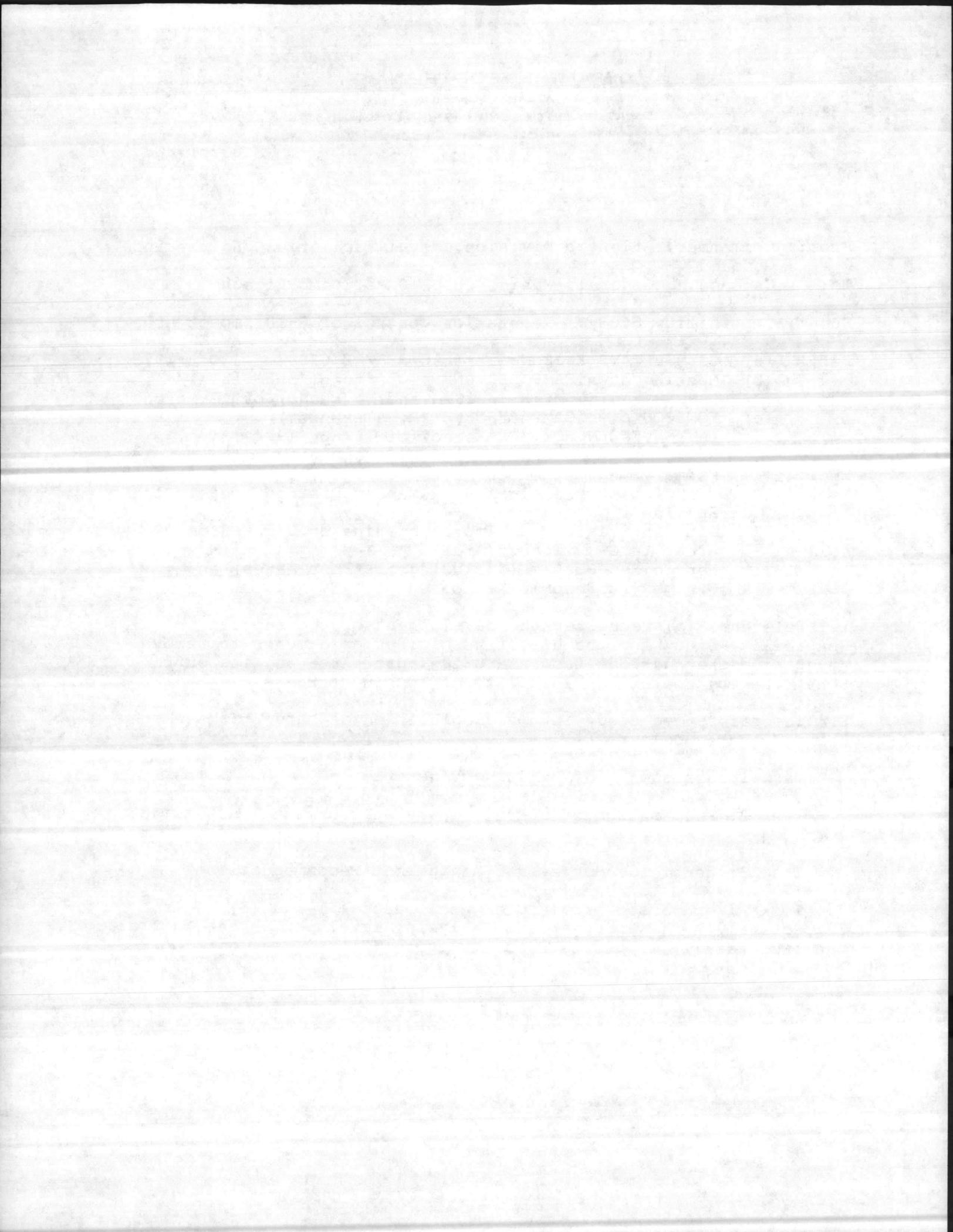
2. The referenced study involved completion of three tasks which are delineated below:

Task 1: Assessment of Existing Vegetation

Task 2: Preparation of a Preliminary Environmental Assessment (PEA)

Task 3: Herbicide Survey and Management Recommendations

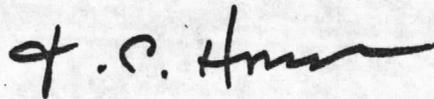
3. Tasks 1 and 3 are provided as enclosures (1) and (3) respectively. The alternatives analysis, developed as the initial phase of Task 2, is provided as enclosure (2).



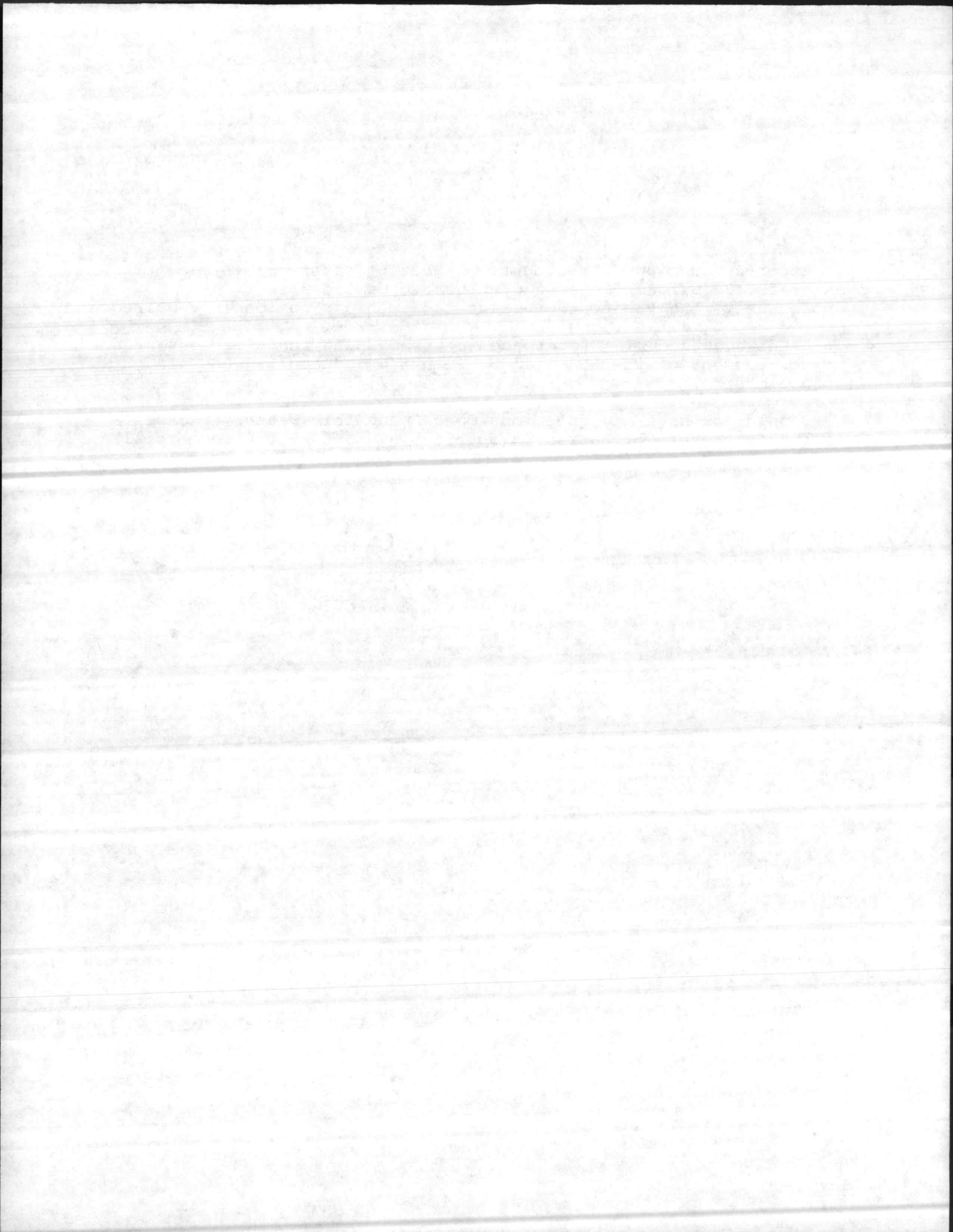
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11000

25 APR 1984

4. After evaluation of enclosure (2) during reference (b), cutting was preferred by Camp Lejeune over herbicide treatment. Consequently, the PEA for herbicide treatment is no longer required.
5. As discussed during reference (c), remaining funds appropriated for development of the PEA will be returned to Camp Lejeune via our finance office.
6. Should you have any questions concerning this matter, please contact Mr. Robert L. Warren (AV564-9605, FTS 954-9605, Commercial 804-444-9605) of my staff.



THOMAS C. HORSCH
By direction



Primary Vegetation on the OP-2,3, and 5 Vista Areas and the
G-10 Impact Area

The vista areas and G-10 impact area are composed of the following 3 types of vegetative sites:

1. Excessively drained, dry sites - Scattered Longleaf and Loblolly Pine, up to 60 feet tall with a light understory of Turkey and Blackjack Oak. Oaks range up to 10 feet tall. Scattered Gallberry and low-bush Huckleberry plants up to 4 feet high. Thin forest litter, and sparse vegetation. Shown in yellow on map.

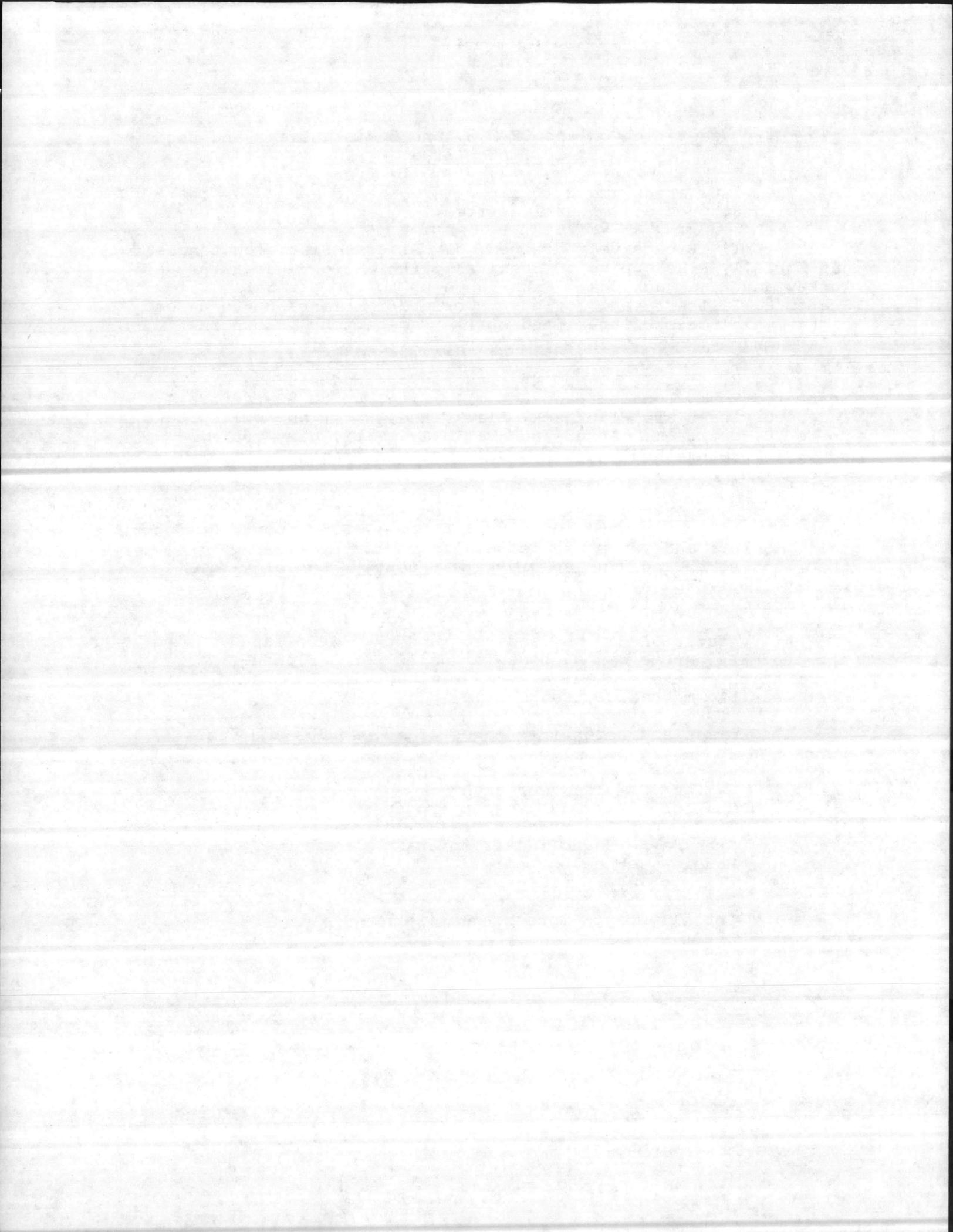
2. Poorly to somewhat poorly drained sites - Scattered Pond, Longleaf and Loblolly Pine, up to 50-feet tall. Understory oaks are Blackjack, Black, Red, Water and Willow Oaks up to 10-feet tall. Shrubs are Loblolly, Titi, Wax Myrtle, Redbay, Sweetbay and range up to 10 feet in height. Sparse vegetation and thin forest litter. Shown in gray on map.

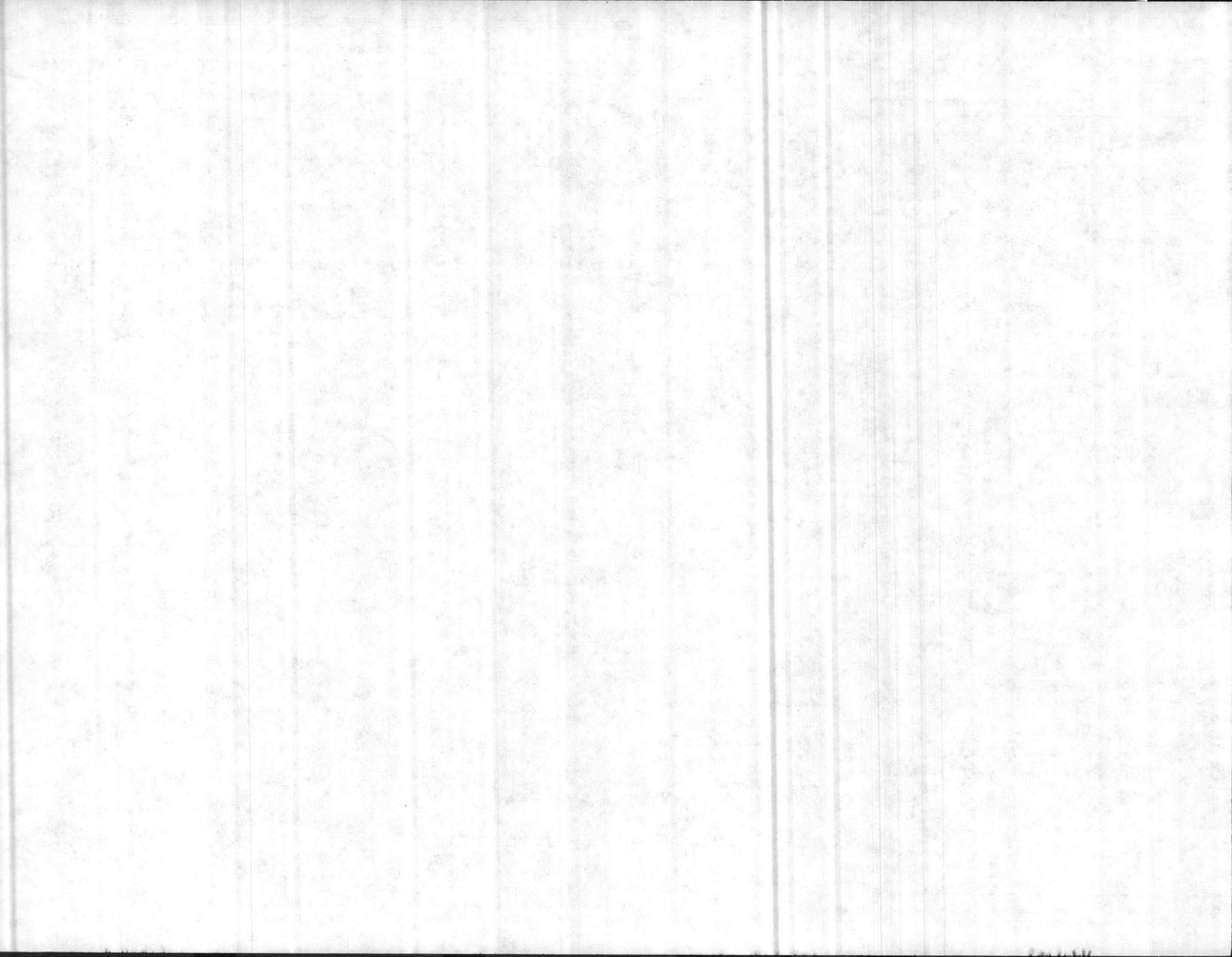
3. Very poorly drained sites - Scattered to moderately dense Pond Pine with an occasional Loblolly Pine, up to 30-feet tall. Shrubs and vines are dense; litter is thick. The important shrub and vine species are Sweetbay, Loblolly-bay, Redbay, Titi, Wax Myrtle, and Greenbrier and range up to 15 feet in height. Shown in blue on map.

All vegetation can be deadened, and thus defoliated, using approved EPA herbicides such as Tordon 101 or Garlon 4 or a combination of these chemicals. Aerial application would be the most feasible method of treatment.

The common and scientific names of the shrubs and vines mentioned above are as follows:

Gallberry - *Ilex coriacea*
Huckleberry - *Gaylussacia frondosa*
Titi - *Cyrilla racemiflora*
Sweetbay - *Magnolia virginiana*
Redbay- *Persea borbonia*
Wax Myrtle - *Myrica cerifera*
Greenbrier - *Smilax sp.*
Loblolly-bay - *Gordonia lasianthus*



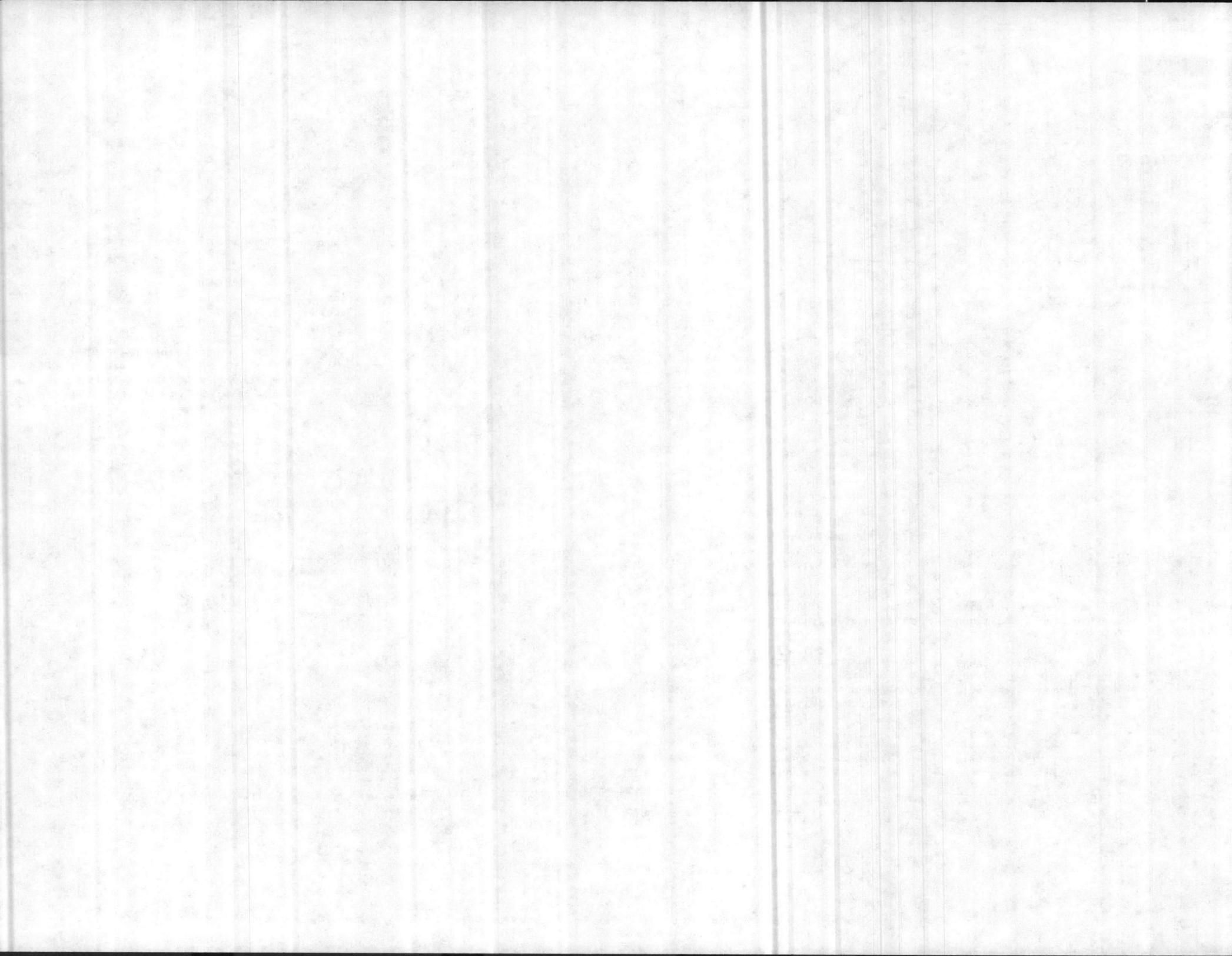


ALTERNATIVES: IMPROVING LINE OF SIGHT FROM OP AREAS TO G-10 IMPACT AREA

Alternative	Frequency of Recurring Action	20 Year Life Cycle Cost	Visual Efficiency		Potential Environmental Impacts	Regulatory Requirements
			Short-Term	Long-Term		
Herbicide Treatment (\$147 per acre)	2-3 yrs. (for conversion to meadowlands)	Option 1: \$1,612,216 (1,096 acres) Option 2: \$797,280 (542 acres)	Low due to standing trees	High in conjunction with supplemental forestry practices	Potential loss of Red-Cockaded Woodpecker nesting and foraging habitat Potential toxicity to vegetation and aquatic species associated with wooded swamps and coastal wetlands Potential herbicidal runoff into adjacent esturine system	Coordination with U.S. Fish and Wildlife Service Consistency Determination with North Carolina's Coastal Area Management (CAM) Act by OCM Consistency Determination with North Carolina's CAM Act by OCM
Cutting * (\$100 to \$120 per acre by private contractor)	5 yrs. (retaining existing underbrush)	Option 1: \$438,400 to \$526,080 (1,096 acres) Option 2: \$216,800 to \$260,160 (542 acres)	High	High	Potential accelerated siltation of adjacent esturine system Potential disturbance of archaeological resources Potential loss of Red-Cockaded Woodpecker nesting and foraging habitat	Consistency Determination with North Carolina's CAM Act by OCM Consultation with SHPO Coordination with U.S. Fish and Wildlife Service
Installation of 100 Ft. Towers (capable of holding 20 men; \$35,000 per tower)	Paint every 3 years	\$132,500	High	High in conjunction with selective cutting	Negligible	None
No Action	Not applicable	Not applicable	Operational effectiveness degraded	Operational effectiveness degraded	None	None

* Camp Lejeune foresters have determined that timber is unmarketable.

ENCLOSURE 121



TASK 3

A. List of EPA-approved herbicides with sample labels.

(1) There is no one herbicide that will provide control of all the species of vegetation identified. Particularly the waxy leaved species, such as Loblolly bay (Gordonia lasianthus). It must also be recognized that the various environmental conditions at the time of application will affect the effectiveness of any herbicide or combination selected.

(2) The following list of herbicides is approved for aerial applications:

(a) GARLON^R4; Triclopyr (3,5,6 - trichloro - 2 pyridinyloxyacetic acid) butoxyethyl ester; 61.6%; Dow Chemical

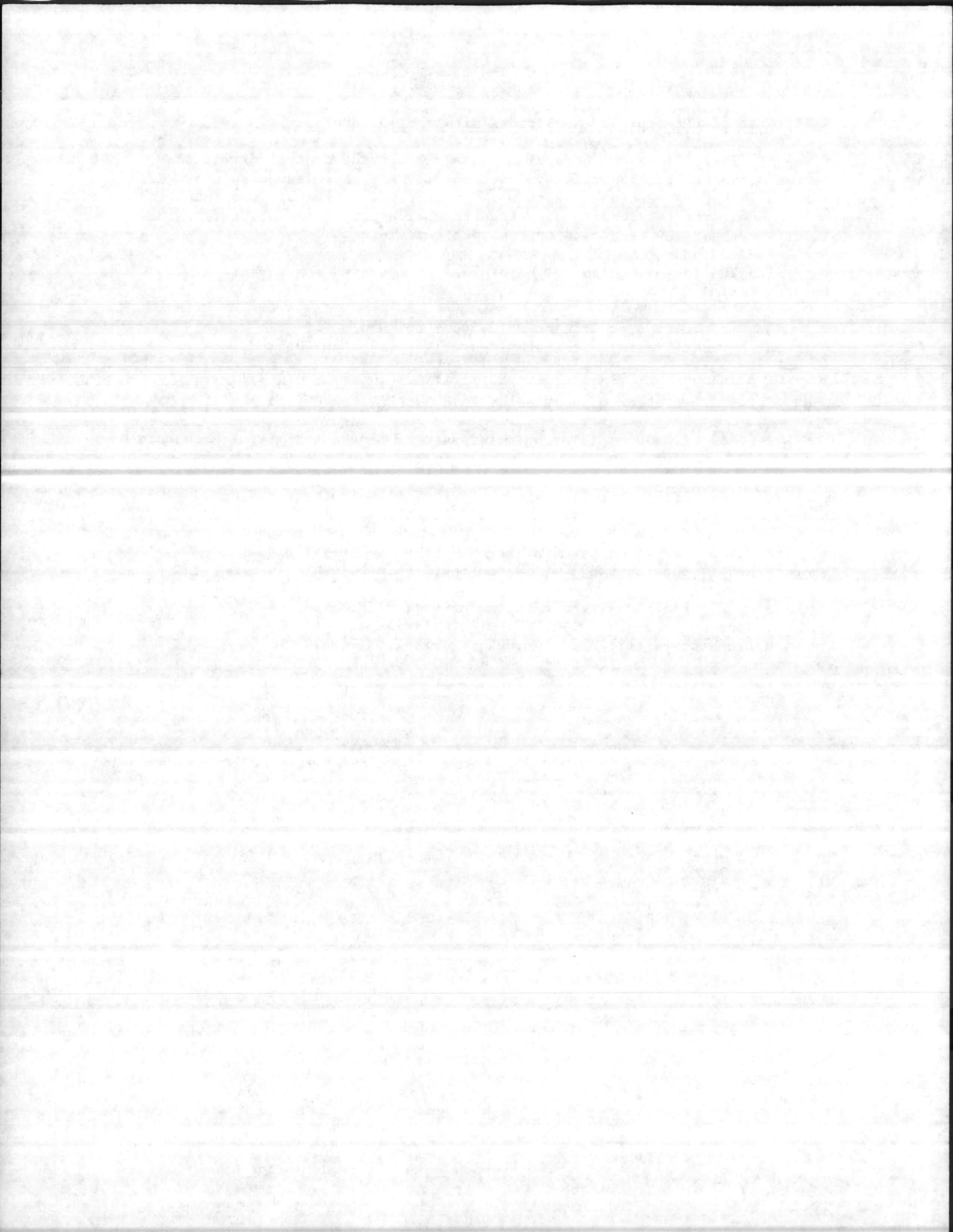
(b) TORDON^R 101; Picloram (4-amino-3,5,6- trichloropicolinic acid) 10.2%; 2,4-dichlorophenoxyacetic acid 39.6%; Dow Chemical

(c) ROUNDUP^R; Isopropylamine salt of Glyphosate; 41.0%; Monsanto Chemical

(d) SPIKE^R40P; Tebuthiuron: N-[5 (+1,1-dimethylethyl) - 1,3,4 - thiadiazol-2-yl]-N,N¹-dimethylurea; 40%; Elanco Chemical.

(e) Krenite^R; Ammonium salt of fosamine [ethyl hydrogen (aminocarbonyl) phosphonate]; 41.5%; DuPont Chemical.

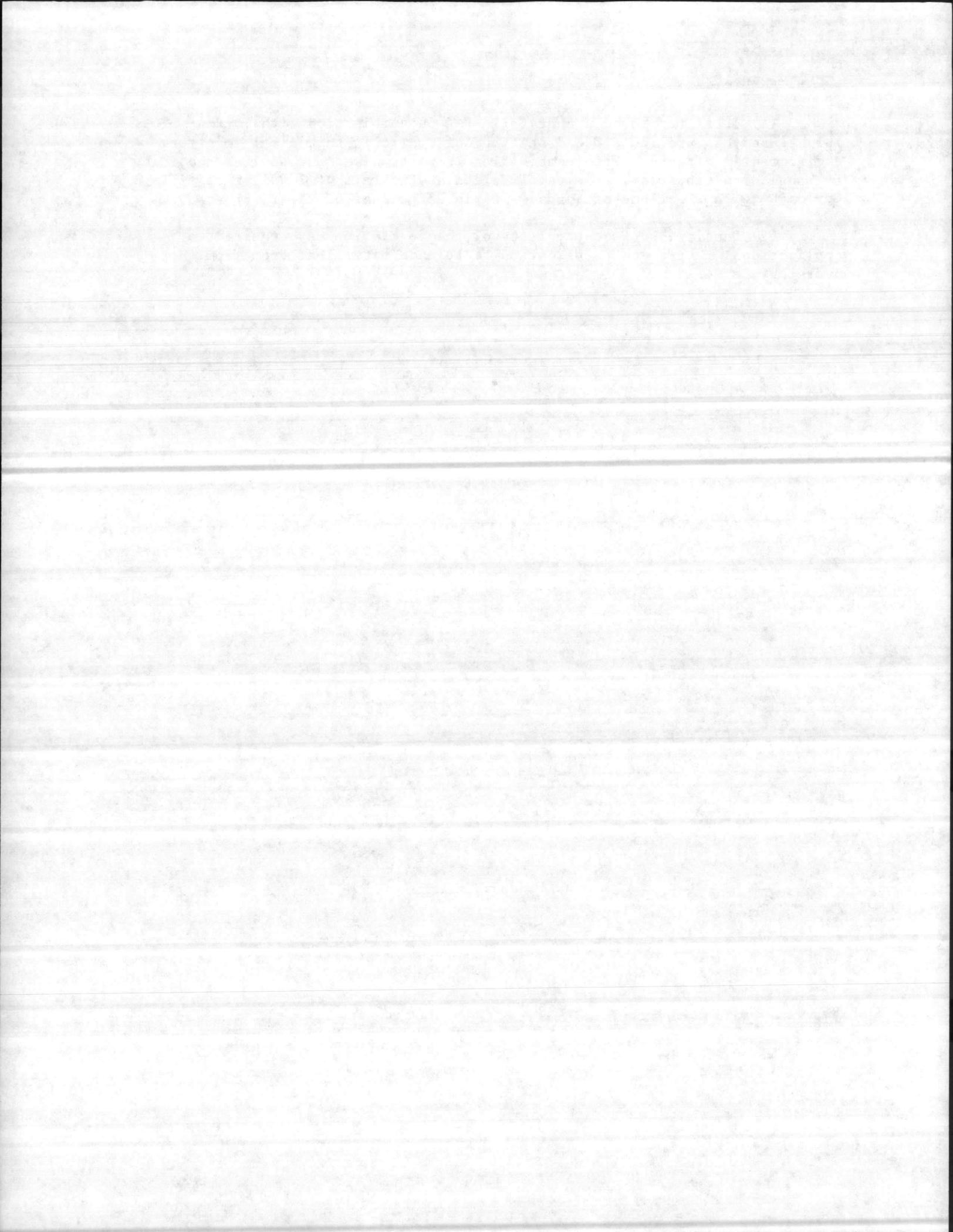
(f) BANVEL^R-720; Dimethylamine salt of Dicamba (3,6-dichloro-o-anisic acid) 12.90%; Dimethylamine salt of 2,4-dichlorophenoxyacetic acid, 25.80%; Velsicol Chemical.



B. Herbicide Recommendation

(1) It is recommended that Garlon^R 4 in combination with Tordon^R 101 be used, to provide a broad spectrum of control with minimal long term environmental effects. This combination is to be mixed and applied according to label directions for aerial application at the rate of 1 gallon of Garlon^R 4 with 2 gallons of Tordon^R 101 in 25 gallons of water per acre.

(2) Density and susceptibility of the vegetation may require two applications. The second application to be made after leaf drop from the overstory.

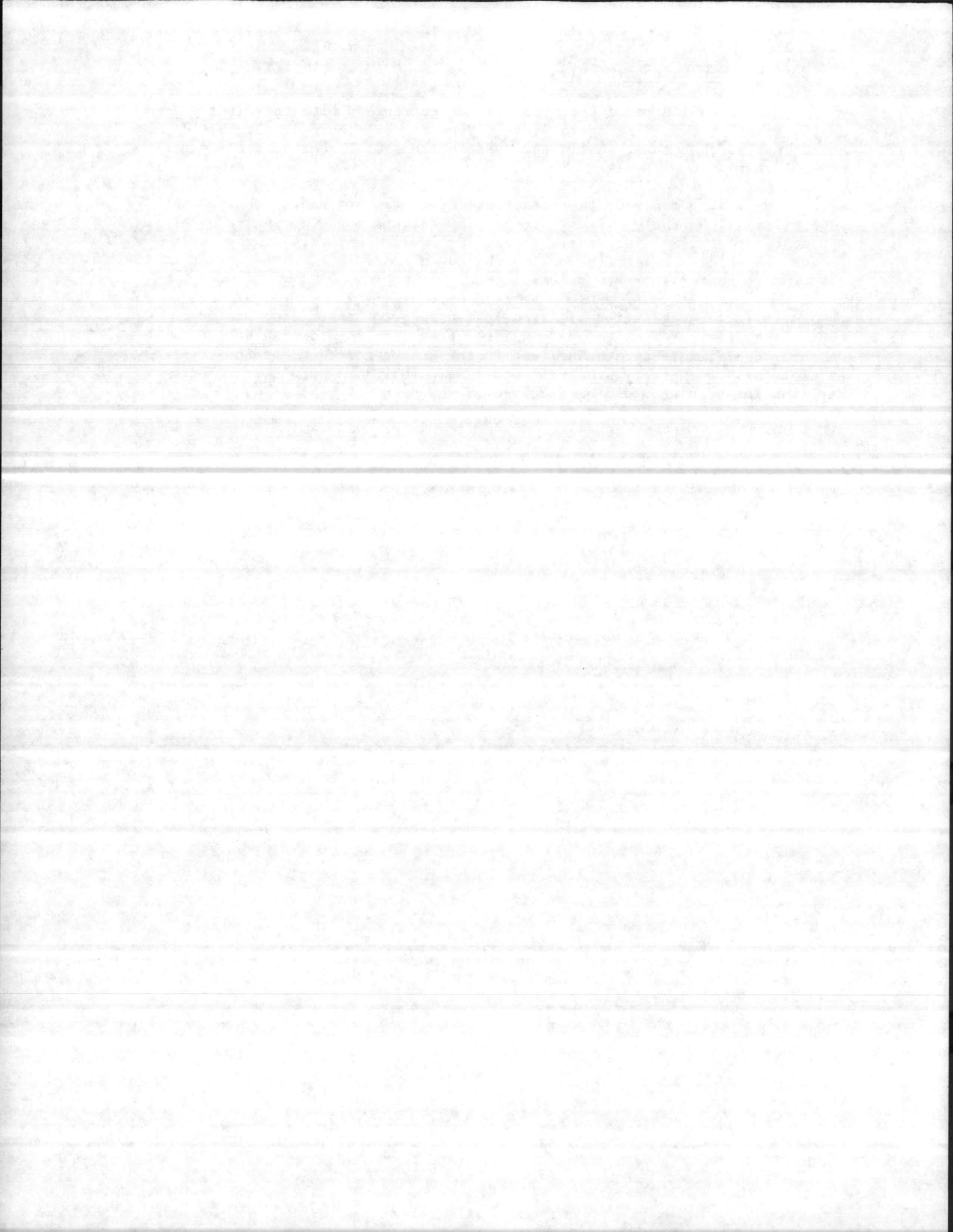


C. Long Term Management Plan

(1) Since 100 percent control is not guaranteed with the first year applications, herbiciding in the second year may be required. It should also be recognized that the trees in the treated areas will remain standing for several years.

(2) Left unmanaged, the area would revegetate to nearly the same mix of vegetation as currently exists. Long term management would require herbicide applications on a 2-3 year cycle, depending on rate and type of vegetative growth. Herbicide selection would be based on conditions as they exist at the time future controls are to be initiated.

(3) After vegetation kill and leaf drop from herbiciding and where there is sufficient fuel to carry a fire, prescribe burn during hot, dry weather to eliminate fire hazard and further reduce tree and brush development. Burn every summer if possible. (NOTE: A permit from North Carolina for burning would be required.)



D. PROPOSED SCOPE OF WORK FOR AERIAL APPLICATION OF HERBICIDES

A. GENERAL

1.1 SCOPE

The work covered by this specification consists of furnishing all labor, equipment and materials (except water), and performing all work required in connection with the aerial application of herbicide materials in the OP-2, 3 and 5 Vista areas and the G-10 impact area, Marine Corps Base, Camp Lejeune, North Carolina, complete in strict accordance with specifications, applicable label instructions, and subject to terms and conditions of the contract.

1.2 LOCATION

The areas to receive aerial herbicide treatment consists of an estimated (542 or 1,096) acres in the (TO BE FILLED IN BY SPEC. WRITER). The area to be treated is depicted in sketches attached which are made a part of this specification. Aerial photographs 1:24,000, and 1:50,000 maps are available for inspection at (TO BE FILLED IN BY SPEC. WRITER) between the hours of 7:30 a.m. and 4:00 p.m., holidays and weekends excluded. Photos and maps will be available to the contractor to accomplish flight control and planning. Due to the nature of military use of the Artillery Impact Area, ground access to that target area is extremely hazardous and will not be authorized for contractor personnel. The area is wooded, and is heavily seeded with unexploded munitions (duds). An adequate cleared landing zone is available within (TO BE FILLED IN BY SPEC. WRITER) air miles of the G-10 Artillery Impact Area. See sketch. The landing zone selected will be accessible to ground support vehicles. Landing/loading areas will be made available for contract operations at Marine Corps Air Station, New River.

1.3 PERSONNEL

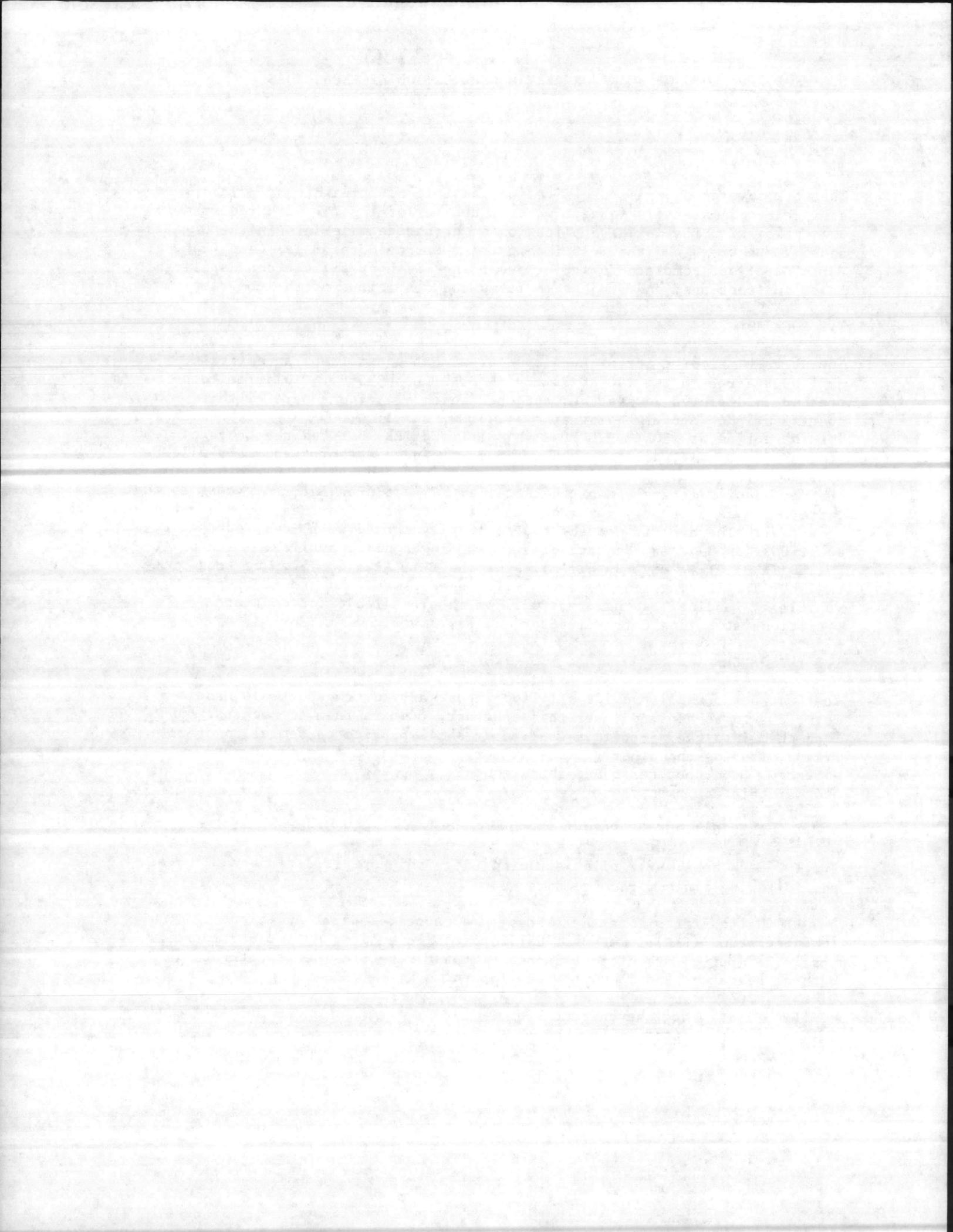
The Contractor shall provide all labor necessary to transport and handle all materials to be applied under this contract, prepare them as necessary and load them into the aircraft. Contractor shall provide personnel to operate mixing, loading and other grounds support equipment and to pilot the aircraft. Contract personnel shall conduct flagging and marking operations and maintain equipment.

1.3.1 QUALIFICATIONS OF FLIGHT PERSONNEL

1.3.1.1 Each helicopter pilot employed under this specifications shall meet the following minimum requirements.

(1) Helicopter pilots shall possess a current Federal Aviation Administration (FAA) Commercial Helicopter Pilots license, and a commercial pesticide applicators license issued by the North Carolina Department of Natural Resources and Community Development.

(2) Pilots shall be currently qualified in the make and model of helicopter to be used in the contract.



1.3.1.2 Each helicopter pilot employed under these specifications shall be experienced and regularly employed in the commercial application of pesticides or other forestry/agricultural type low altitude flight operations. The pilot must have had a minimum of two (2) years flight experience in aerial application of pesticides, seed or fertilizers in forestry or right of way applications. The qualifications of all flight personnel shall be subject to review by the Contracting Officer's Representative (COR).

1.4 QUALITY CONTROL

1.4.1 CONTRACTOR PRELIMINARY QUALITY CONTROL PLAN (QCP): The contractor shall submit a preliminary quality control plan to the Contracting Officer in writing within 10 working days of notification of award. This plan will describe the personnel, equipment and procedures the bidder proposes to employ in providing the services requested under this solicitation. The proposal shall contain, but need not be limited to the following:

a. List of personnel to be employed on MCB CAMP LEJEUNE by occupation (skill, title) and number.

b. The name of the pilot or pilots to be utilized in aerial application procedures and a brief resume of their experience.

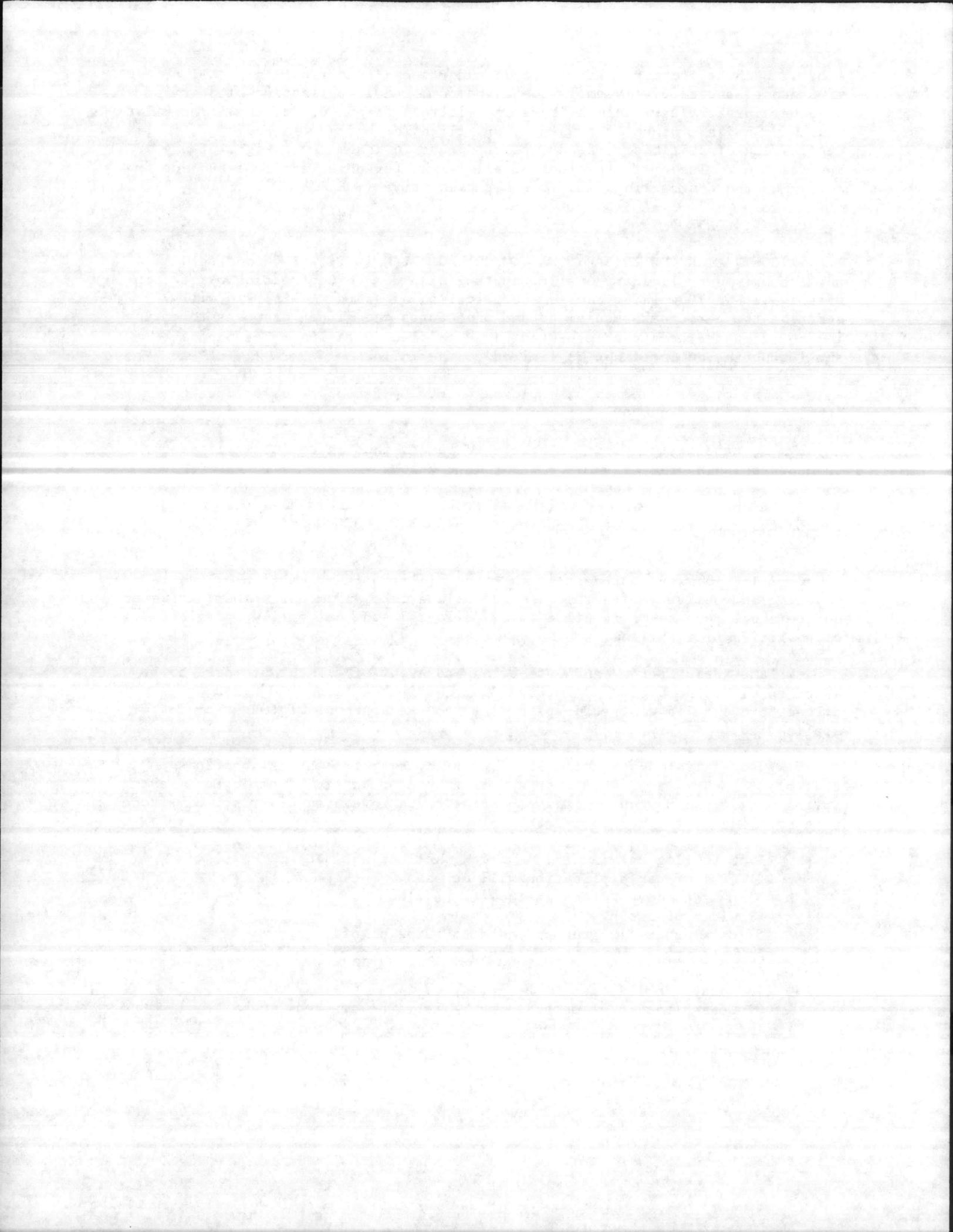
c. The name, address and telephone number of the individual who will be responsible for contractor operations at MCB CAMP LEJEUNE and will be authorized to make operational decisions for the Contractor.

d. A list of key equipment items to be utilized in accomplishing the handling and delivery of herbicides to include make and model number, trade or common name, purpose or function to be performed and, optionally, pertinent capabilities of each item.

e. Name, description, and rate of any adjuvant or diluent proposed to be added to either herbicide to improve distribution pattern. Adjuvant or diluent proposed in contractor plan will require approval of COR prior to application.

f. A sequential description of inspection, adjustments, calibrations, control procedures and overall spray strategy proposed to be employed to avoid spills, drift, skips and excessive overlap to achieve even distribution at the rate specified. The Contractor shall indicate:

- (1) Meteorological conditions which shall be avoided.
- (2) Time of day application will be made.
- (3) Height above ground swath will be flown.
- (4) Width of swath.
- (5) Marking or flagging proposed to guide pilot.
- (6) Pressure at which spray equipment will operate and orifice size on nozzle.
- (7) Spray droplet size to be attempted (VMD).
- (8) Concentration of material as it is to be applied.



g. Preliminary Contractor Quality Control Plan must be approved by the COR prior to commencement of services.

The preliminary plan will be finalized jointly by pilot and COR during mandatory reconnaissance of treatment area to be made at time of application. (See Paragraph 1.4.2)

1.4.2 FINALIZATION OF QUALITY CONTROL PLAN: The pilot applying the herbicide shall attend a joint ground (aerial) reconnaissance of the area with the COR to define boundaries, sensitive areas, obstacles, problem areas, flight hazards and weather. The reconnaissance will be conducted prior, and as close as possible, to treatment. This joint inspection will provide for on-site discussion of problems and adoption of the best practicable treatment strategy for the site under prevailing weather and other circumstance. The Contractors Preliminary Quality Control plan will be jointly finalized at this time. Deletions, additions or changes which pilot and COR jointly agree are appropriate will be made in writing to the QCP at this time and will be signed by both parties.

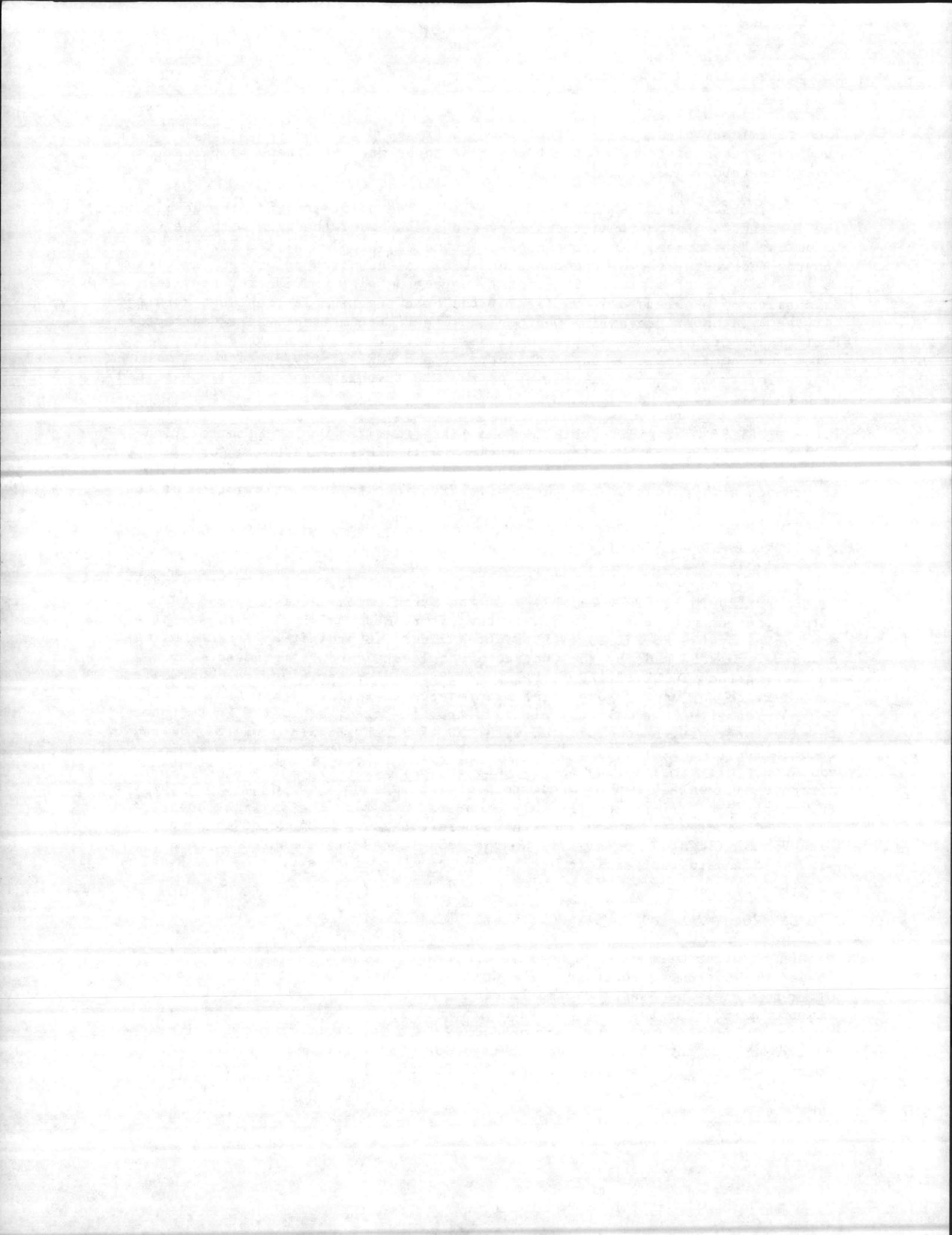
1.4.3 PURPOSE OF QUALITY CONTROL PLAN: The finalized Quality Control Plan and the provisions of these specifications will provide the basis for all application of herbicide under this contract. Only that acreage treated in accordance with this plan and these specifications to the satisfaction of the COR will be measured for payment.

1.5 OPERATION OF AIRCRAFT.

Aircraft may be permitted to use Marine Corps Air Station, New River, located (TO BE FILLED IN BY SPEC. WRITER) from the target area. Use of airspace within the restricted area, which is the entire MCB CAMP LEJEUNE is strictly controlled by (TO BE FILLED IN BY SPEC. WRITER). Coordination for use of MCAS New River must be made by the Contractor at least 24 hours in advance by contacting the (TO BE FILLED BY SPEC. WRITER). MCAS New River does not offer fuel service nor use of government maintenance facilities. MCB CAMP LEJEUNE is an intensely flown military aircraft training area, and all flights under this contract will be coordinated with (TO BE FILLED BY SPEC. WRITER) on radio frequencies (TO BE FILLED BY SPEC. WRITER). Aircraft will maintain radio contact at all times during the flights in restricted area. Landings of aircraft will be allowed on open areas or landing zones in the vicinity of the treatment area. Aircraft will only be operated during the daylight hours, and when weather conditions are such that operations can be conducted in accordance with Visual Flight Rules (VFR). Weather conditions are measured at MCAS New River. Standard weather forecasting service is available at MCAS New River Operations.

1.6 ENVIRONMENTAL AND SAFETY CONSIDERATIONS.

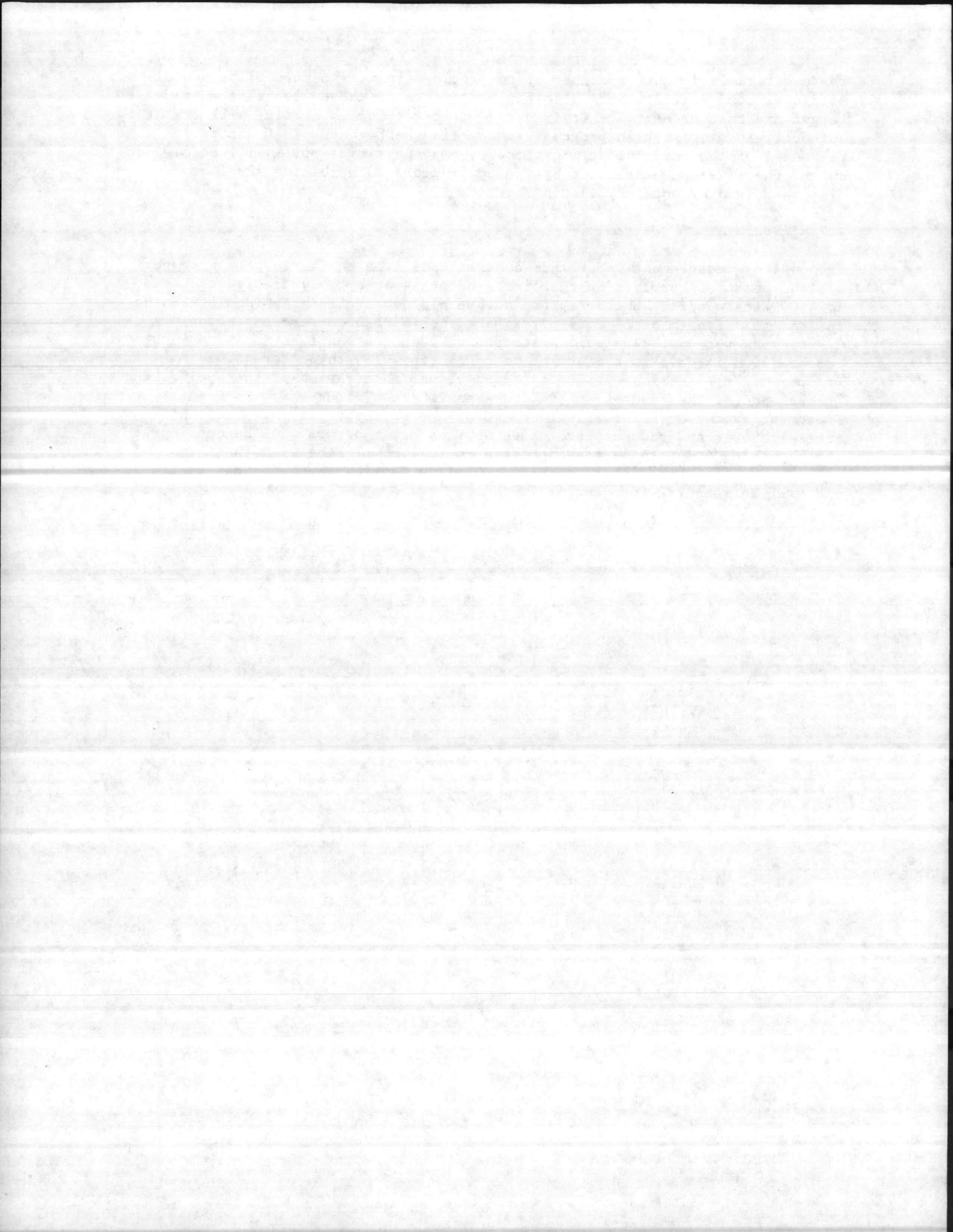
Necessary water will be made available by the government at the loading zone loaded in government vehicles. The Contractor shall furnish and transport all other materials necessary to the landing zone. The contractor shall assume responsibility for these materials during all phases of the work and full financial liability for any loss or damage that may occur to personnel or the environment during all procurement, transport, preparation, transfer, mixing, loading and application procedures. The Contractor shall handle and apply



these materials in such a manner as to preclude toxic exposure of personnel, wildlife, commercial timbers or other components of the environment outside target and test areas. The Contracting Officer's Representative will have the authority to stop work in progress at any time he believes that hazard to personnel or the environment might occur. Any pesticide spill will be cleaned up and the site decontaminated by the Contractor. No herbicide shall be dispersed into or onto any flowing stream.

1.7 MEASUREMENT AND PAYMENT:

The unit of measurement under this contract shall be the acre. The acreage will be measured by plotting the limits of areas acceptably treated on 1:24,000 scale aerial photographs, and the plotted areas determined utilizing the dot grid system of 64 dots per square inch with a conversion factor of 0.996 acres per dot. The unit price per acre quoted shall be full compensation for all work required in connection with the contract. Acceptance or rejection will be based on visual observation of the application process and of the results obtained. Areas where obvious skips between treatment swaths or skips at either end of the swaths occur and areas where excessive overlap occur or into which obvious drift occurs will be considered unacceptable. Only those areas treated in full compliance with this specification and the final Contractor Quality Control Plan will be acceptable and will be measured for payment.



B. DEFINITIONS.

2.1 LANDING ZONE (LZ)

A cleared area to be used as a loading, testing and staging area for aircraft employed under this contract, located as close as feasible to the treatment areas, to be selected jointly during joint reconnaissance (See Paragraph 1.4.2).

2.2 CONTRACTING OFFICER'S REPRESENTATIVE (COR).

Government employee acting on behalf of the Contracting Officer as is usual in DOD contracts, except that for the purposes of this contract, he shall be a Pest Management Professional (PMP) with extraordinary responsibilities in regard to environmental protection and safety of all personnel and is authorized to stop all work at any time he should feel that either is threatened. The COR for this contract shall be the (TO BE FILLED IN BY SPEC. WRITER).

2.3 VMD.

An acronym for volume median diameter, the diameter in microns of a spray droplet which is exceeded in size by all droplets on one half the volume produced by a specific adjustment of a spraying device and in turn larger than any of the droplets in the other (more finely divided) 1/2 of the volume.

2.4 ADJUVANT.

An inert ingredient added to a pesticide formulation to make it work better.

2.5 DILUENT.

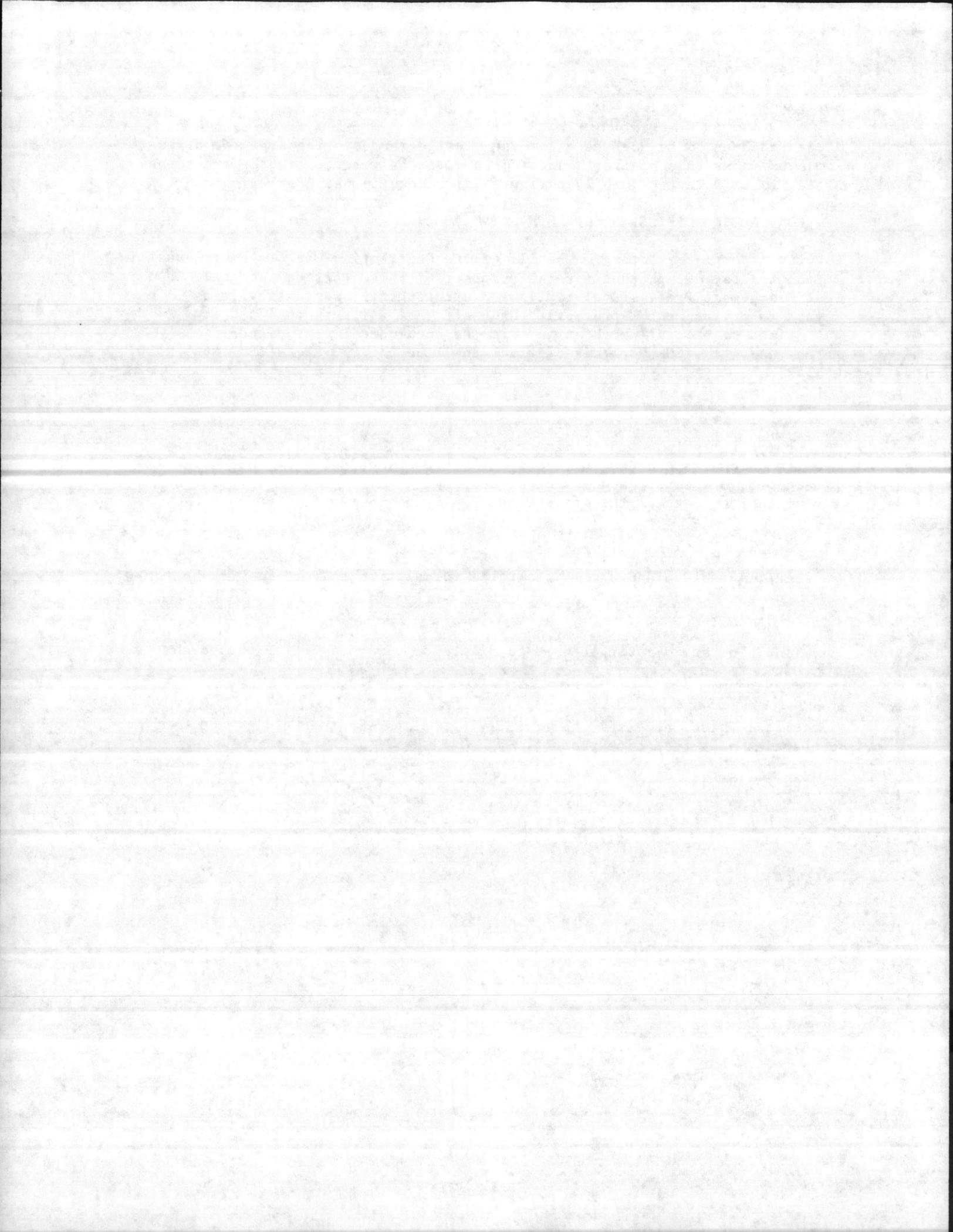
Any liquid or solid material used to dilute or carry an active ingredient.

2.6 SURFACTANT.

A chemical which increases the emulsifying, dispersing, spreading and wetting properties of a pesticide product.

2.7 CONCENTRATION.

Strength of the active ingredient in a pesticide formulation. It must be specified whether concentration is measured in units of volume or weight.



C. GOVERNMENT FURNISHED ITEMS.

3.1 MATERIALS.

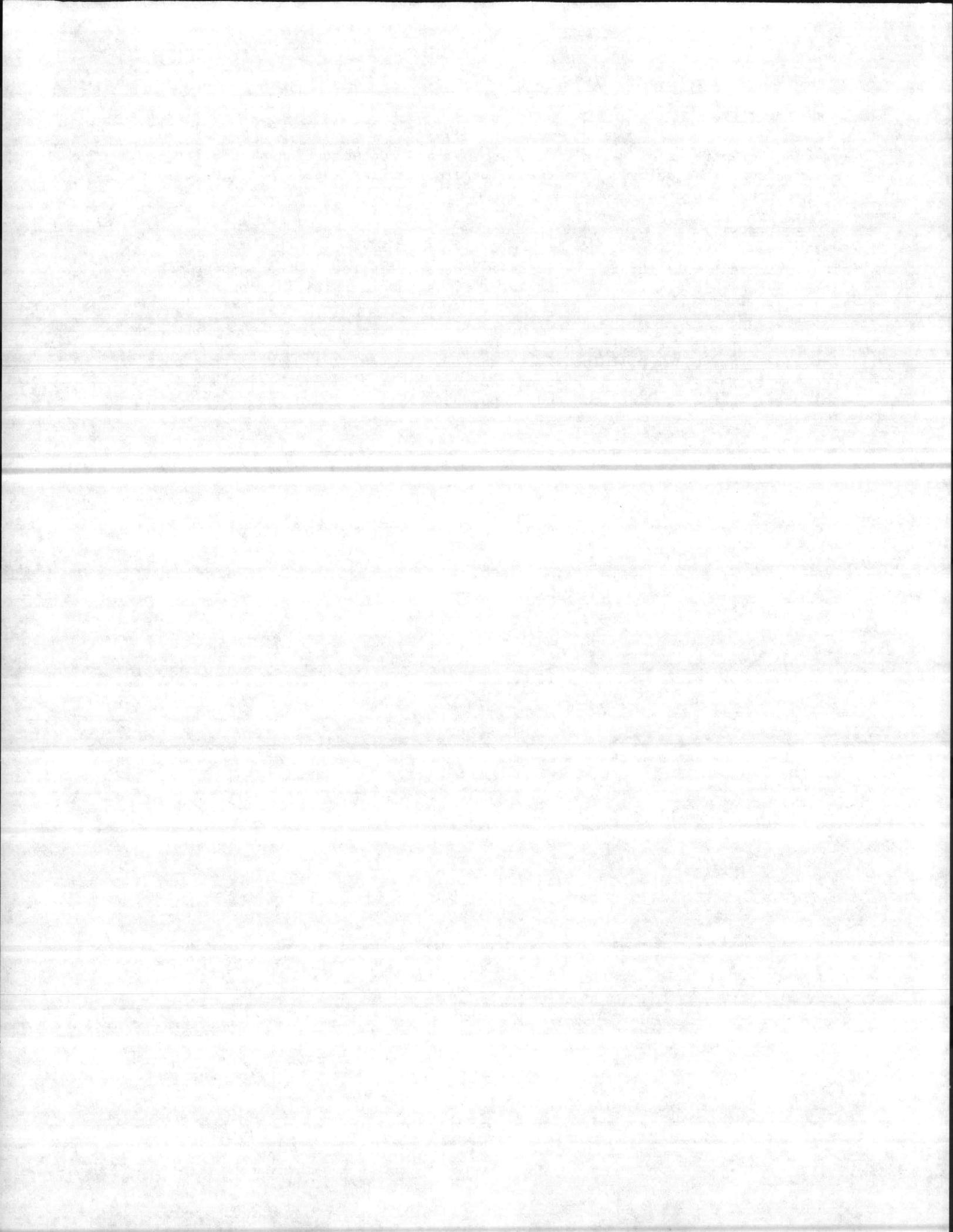
Adequate quantities of water to achieve planned concentration of herbicide materials will be delivered to the designated landing zone(s) in the vicinity of the treatment areas loaded on government vehicles.

3.2 EQUIPMENT.

The Government will furnish vehicles to transport water to the landing zone to stand by at that site during Contractor mixing and herbiciding operations.

3.3 SERVICES.

Government personnel will load water and operate vehicles used to transport these materials to the landing zone. All empty herbicide containers will be collected at the landing zone and disposed of by the Government.



D. CONTRACTOR FURNISHED ITEMS

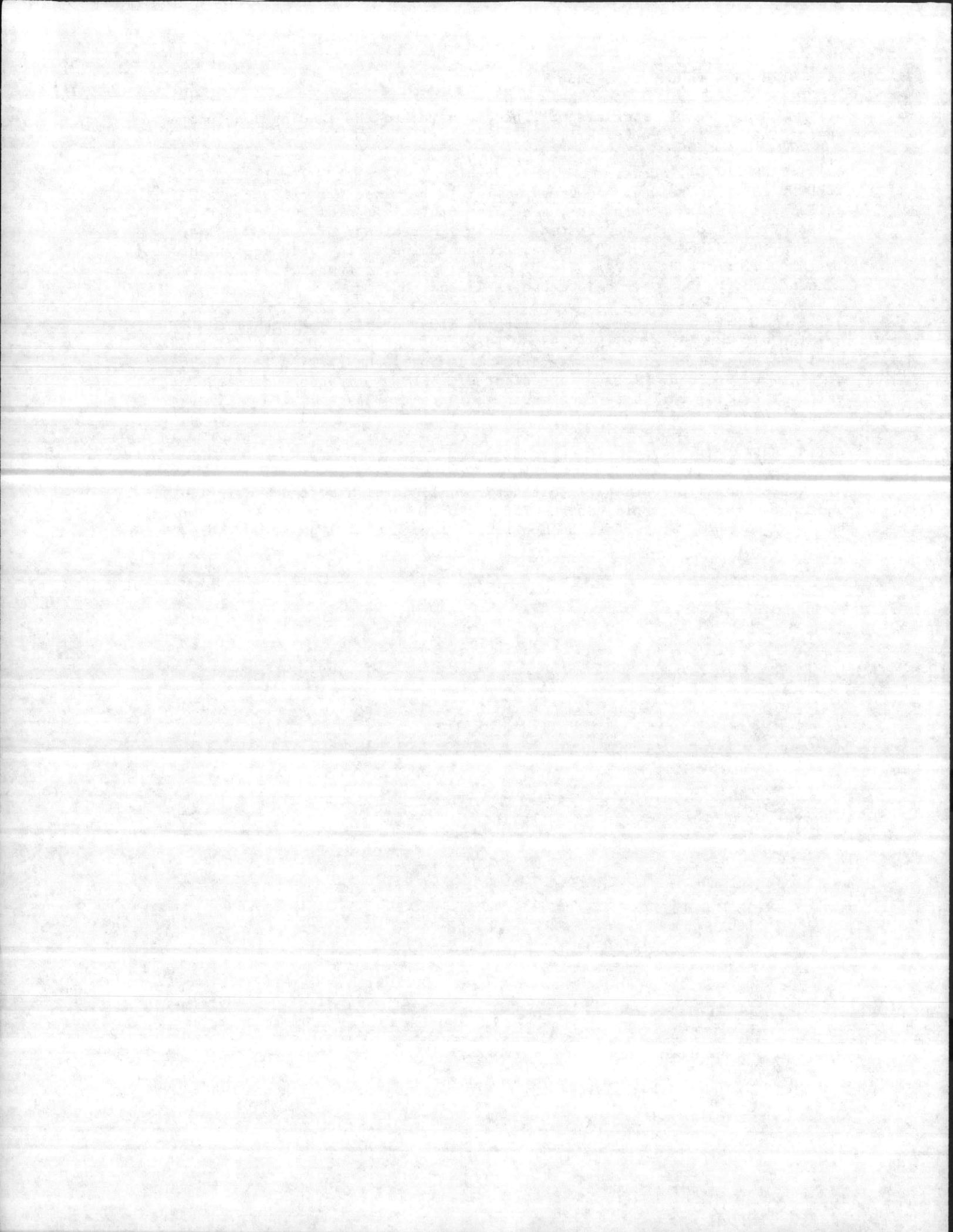
4.1 MATERIALS: All materials will be delivered to the landing zone unopened in original factory containers.

4.1.1 TORDON^R 101. Contractor shall furnish (2192 or 1084) gallons of TORDON^R 101 mixture weed and brush killer to be mixed with (1096 or 542) gallons of GARLON^R 4 herbicide, see paragraph 4.1.2 below and applied to (1096 or 542) acres to be treated. Active ingredients of TORDON^R 101 are Picloram 10.2% and 2,4-D, 39.6 % as propanolamine salts (acid equivalents 0.54 lb/gal Picloram and 2 lb/gal 2,4-D) EPA Registration Number 464-306 as manufactured by Dow Chemical Company, Midland, Michigan.

4.1.2 GARLON^R 4. Contractor will furnish (1096 or 542) gallons of GARLON 4 herbicide (to be mixed with (2192 or 1084) gallons of TORDON^R 104 mixture weed and brush killer, See Paragraph 4.1.1 above) and applied to (1096 or 542) acres to be treated. Active ingredient of GARLON^R 4 is the butoxyethyl ester of triclopyr 61.6 percent (acid equivalent 4 lb/gal), EPA Registration Number 464-554 as manufactured by DOW Chemical Company, Midland, Michigan.

4.1.5 SURFACTANT

4.1.5.1 STANDARD SURFACTANT. Contractor shall furnish a standard agricultural surfactant such as Tronic, Sponto 712, or ORTHO X-77 in sufficient quantity to be added to spray mixture to be applied at the rate of 1 quart per acre.



4.1.6 SUPPORT MATERIALS. All other materials, other than water, necessary to accomplish the work required in this specification. This shall include but not be limited to all fuel/POL for the equipment and any diluent or adjuvant materials opted for use by the Contractor and approved by the COR.

4.2 EQUIPMENT.

The equipment required to transport, mix and apply herbicides under this contract shall be furnished and operated by the contractor. The Government reserves the right to determine whether or not the Contractor has the proper equipment necessary to perform the work under this contract. The following equipment will be required as a minimum in the execution of the contract.

4.2.1 AIRCRAFT.

One (1) rotary wing aircraft (helicopter) completely equipped for aerial application of pellets and or aerial spray as appropriate. The aircraft should be certified as airworthy by the Federal Aviation Agency, and this certificate shall be current at the time work is performed under the contract. Each aircraft employed in the work at MARCORB Camp Lejeune shall be equipped with a radio capable of netting with (TO BE FILLED IN BY SPEC. WRITER).

4.2.2 HERBICIDE DISPERSAL EQUIPMENT.

Delivery system used to disperse sprays shall utilize a MICROFOIL™ boom as produced by Amchem Products, Incorporated, or equivalent. The boom will be equipped with diaphragm type check valve nozzles and with slotted strainers so as to achieve drip free shut off and maximum flow with a minimum pressure.

4.2.3 SUPPORT ITEMS.

4.2.2.1 All necessary flags, ballons, markers, smoke generators, etc. for marking areas to be treated with herbicides.

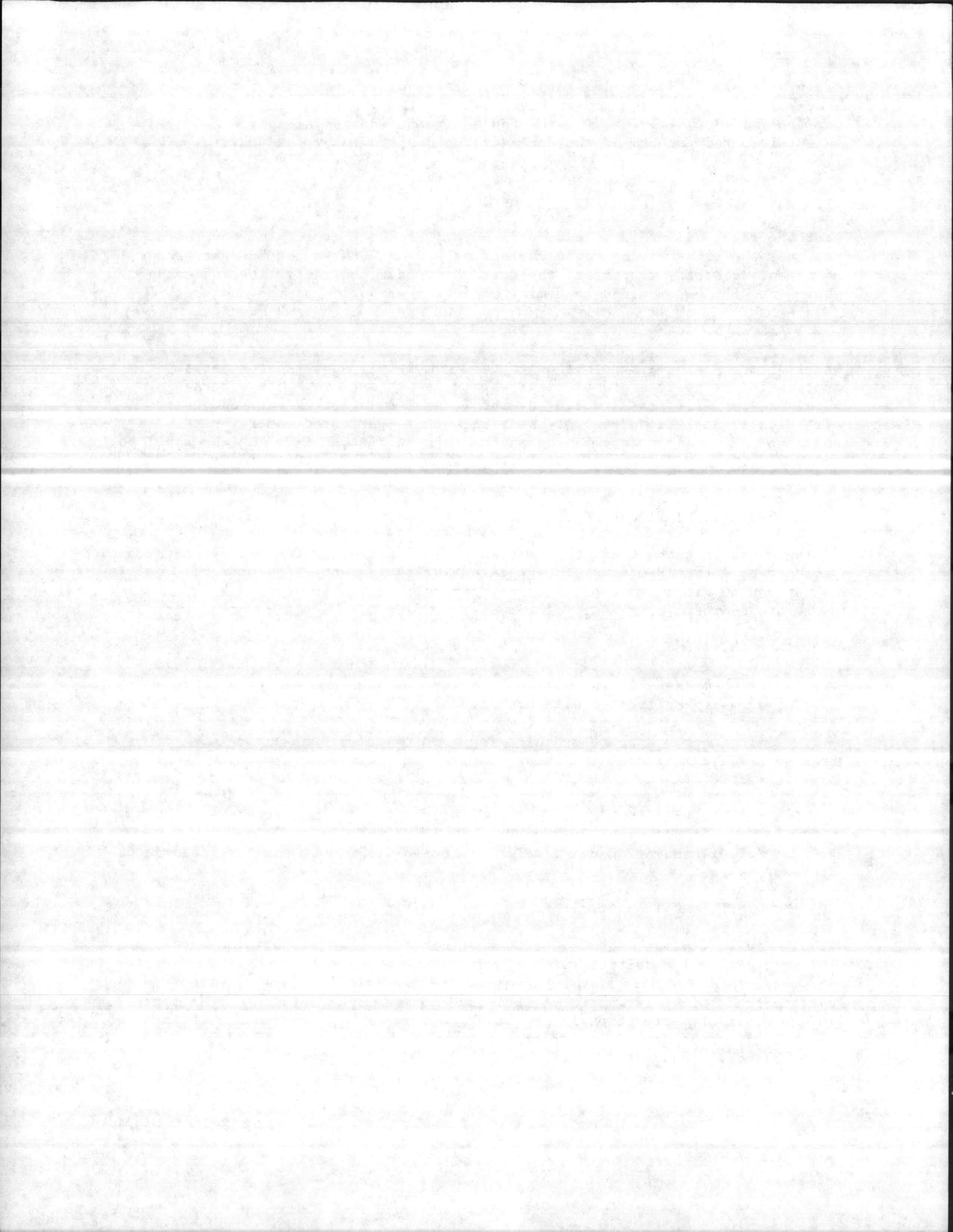
4.2.3.2 All grounds support vehicles required to refuel the aircraft, transport all materials (other than water), crew, or perform maintenance on the aircraft.

4.2.3.3 All equipment needed to mix and load herbicide in aircraft.

4.2.3.4 All diluent or adjuvant materials opted for use by the contractor and approved by the COR.

4.3 EQUIPMENT MAINTENANCE.

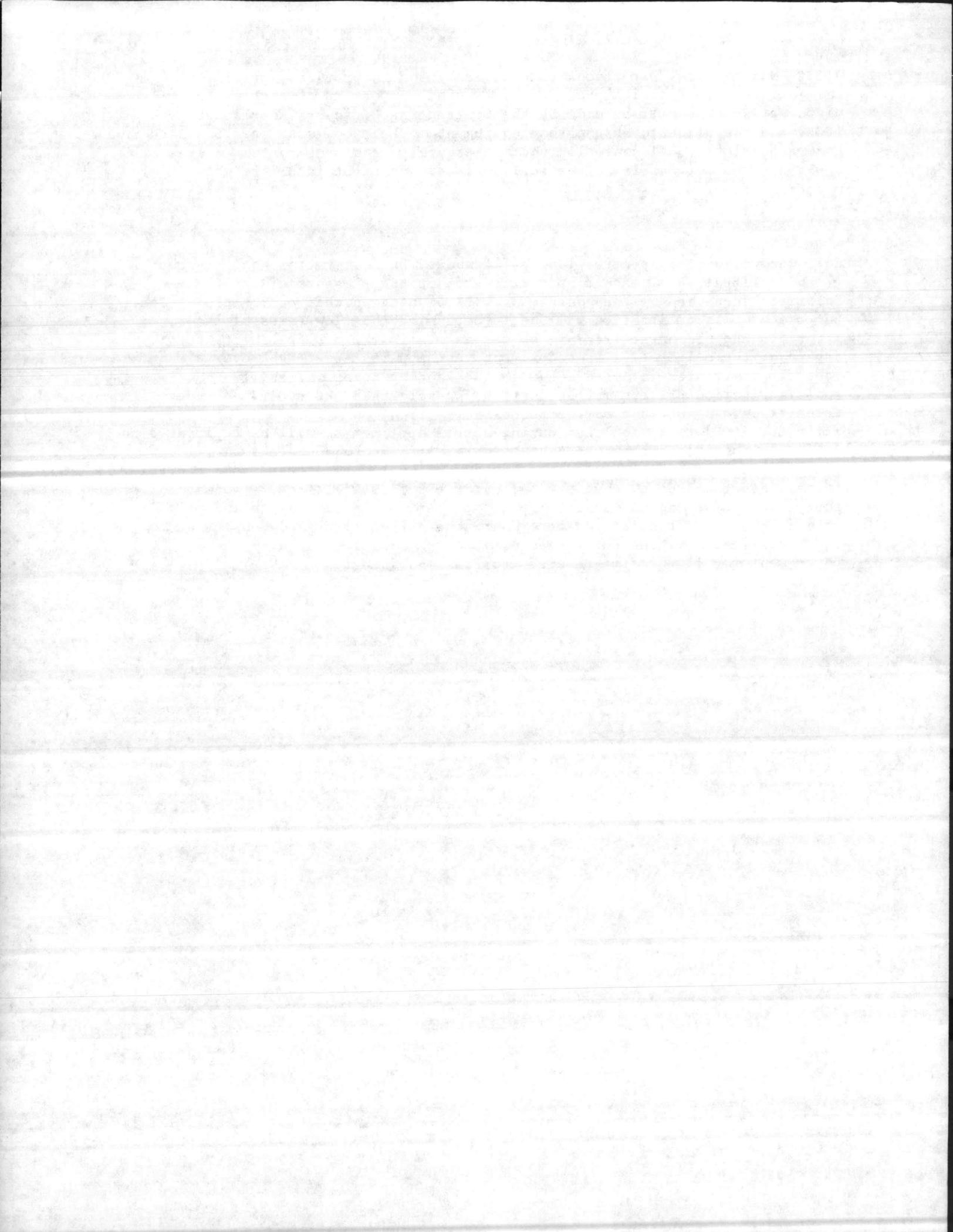
4.3.1 Level of maintenance. The Contractor shall maintain all equipment in a fully operational condition, with dispersal equipment clean and free of dirt or spray residue which might interfere with material disbursement rate, pattern or droplet size, free of leaks and in proper adjustment at all times. In the event of malfunction or breakdown no further application shall take place until the problem is corrected and any dispersal equipment is recalibrated.



4.3.2 Maintenance Inspection. At the landing zone provided, prior to initiation of application procedures, a joint inspection of each of the dispersal systems will be made by the Contracting Officer's Representative (COR) and the pilot to assure that equipment to be used is as specified and in good repair; that all controls function properly; that the system is free of leaks and free of debris or chemical residue that might interfere with materials flow.

4.4 CALIBRATION.

Following a joint inspection (See 4.5.2 above) the contractor shall conduct a ground calibration of each dispersal system in the presence of the COR. Materials furnished by the contractor will be used in this calibration. The purpose of this calibration will be to determine the flow rates of the materials and to characterize in so far as possible the dispersal pattern. As a part of the calibration procedure one test application flight over a specified test area in or adjacent to the landing zone, whereby the coverage and distribution pattern may be further characterized and evaluated under actual flight conditions may be requested. Flight conditions (ground speed, altitude, etc.) to be followed during actual application will be duplicated in so far as possible during the test flight. Failure to achieve even distribution of the materials onto the target or to demonstrate good control (timely start and quick shut off) of materials flow will require adjustment of equipment and/or procedures and repeat of the test until ability to apply materials evenly at specified rates onto the target area is demonstrated to the satisfaction of the COR. No additional cost will be born by the Government for flight time required for this calibration.



E. SPECIFIC TASKS

5.1 APPLICATION OF HERBICIDES, GENERAL

Areas to receive application of herbicides as illustrated in Sketches ___ will be delineated by the Contracting Officer's Representative who will show them to the pilot. All application shall be made under the personal direction of the COR, one of whom shall be present at all times when aerial application is being made. No Government personnel will be permitted to ride in Contractor's helicopter during the application of herbicides.

5.2 WEATHER RESTRICTIONS

Application will be made only when ceilings and visibility are within Visual Flight Rule (VFR) limitations as determined by MCAS New River Weather Station. Wind velocity at the application target area shall not exceed 10 mph velocity. No applications shall be made in fog or over ground fog; during rainfall or mist or when rainfall is predicted by MARCORB Camp Lejeune within 12 hours; or while a temperature inversion exists; or which the leaves or vegetation are wet. The Contracting Officer's Representative shall have final authority to determine if application can be safely and successfully made and shall have the right to halt spray operations at any time if, in his opinion, the Contractor is violating the terms of the contract or his performance is unsafe or unsatisfactory.

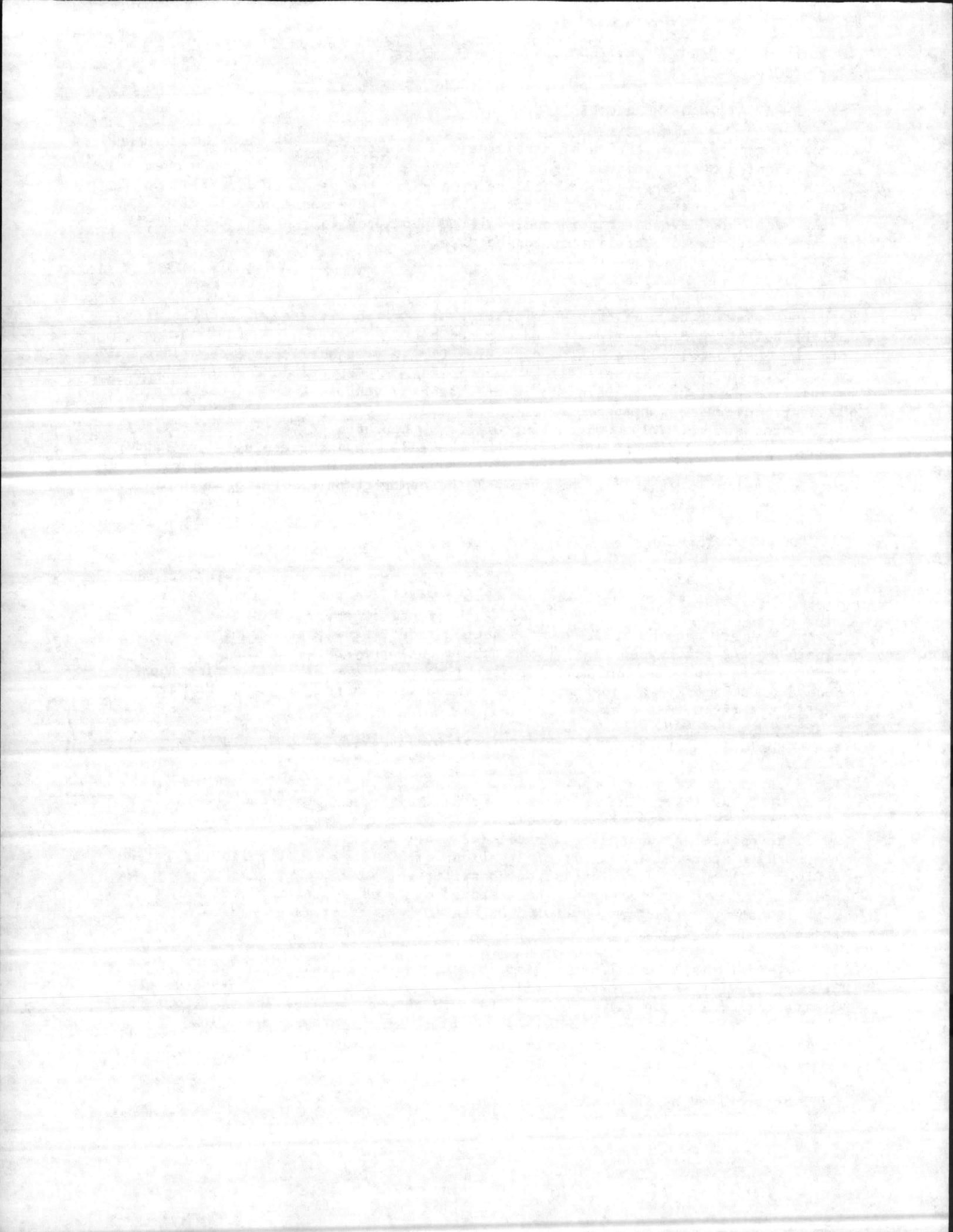
5.3 DOUBLE COVERAGE.

Double coverage of the treatment areas shall be made with each herbicide. An initial coverage at one half the prescribed rate (see subparagraphs 5.4, 5.5, and 5.6 below) shall be completed for each treatment area. This first coverage shall then be followed by a second treatment with the same materials (again at 1/2 prescribed rate) flown across the spray paths of the first treatment in such a manner that the flight paths of the aircraft during the second treatment are approximately at right angles to the flight paths flown during the first treatment.

5.4 APPLICATION OF TORDON^(R) 101 AND GARLON^(R) 4 MIXTURE

The application of this material is to be made during the period (TO BE FILLED IN BY SPEC. WRITER). The exact time and date of application shall be coordinated in advance with the Contracting Officer's Representative. Application will be made at the rate of 25 gallons of spray mixture per acre. The spray mixture will consist of 2 gallons of TORDON^R 101, 1 gallon of GARLON^R 4, 1 quart of surfactant, plus sufficient water to provide 25 gallons for each acre treated. Recommended order of addition to the spray tank is water, surfactant, TORDON^R 101, GARLON^R 4. Continuous moderate agitation is required.

The material shall be uniformly distributed over the target area and operations will be continuous until the materials have all been expended. The contractor shall take all necessary steps to assure that the spray mixture is delivered onto target areas only. After all designated areas have been treated, any portion of treated areas on which unacceptable application is evident shall be retreated to provide the specified quantity per acre. Additional flight swaths and additional materials needed to provide coverage will be provided by the Contractor at no cost to the Government.



E. COST ESTIMATE

1. Alternative A (Approximately 1,096 acres)

*Helicopter Cost: \$15/AC X 1,096 acres = \$16,440

Chemical Cost:

TORDON^R 101: \$31.30/gal X 2 gal/acre X 1,096 acres = \$68,610

GARLON^R 4: \$69.50/gal X 1 gal/acre X 1,096 acres = \$76,172

Total cost per application = \$161,222
Profit Margin: 25% X \$161,222 = \$40,305
TOTAL COST = \$201,527

Cost per acre = \$161,222 divided by 1,096 ac = \$147.10 per acre

Alternative B (Approximately 542 acres)

*Helicopter Cost: \$15/acre X 542 acres = \$8,130

Chemical Cost:

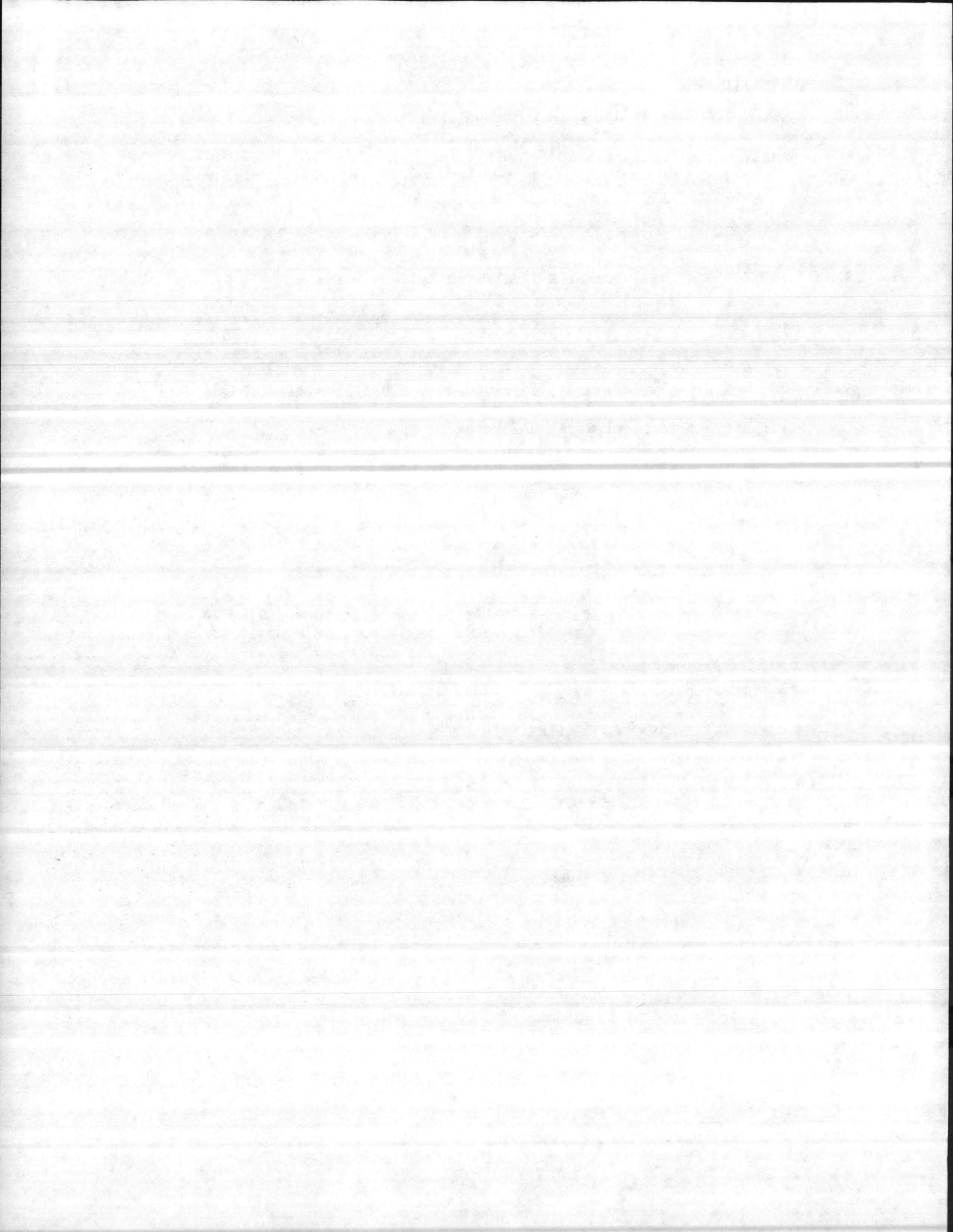
TORDON^R 101: \$31.30/gal X 2 gal/acre X 542 acres = \$33,929

GARLON^R 4: \$69.50/gal X 1 gal/acre X 542 acres = \$37,669

Total cost per application = \$79,728
Profit Margin: 25% X \$79,728 = \$19,932
TOTAL COST = \$99,660

Cost per acre = \$79,728 divided by 542 ac = \$147.10 per acre

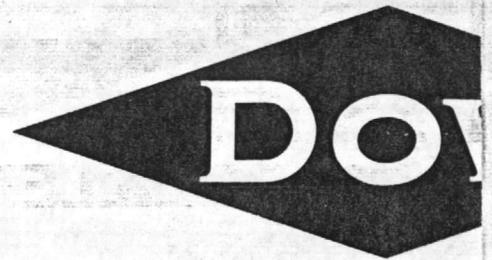
*Includes labor to load helicopter with herbicides



RESTRICTED USE P

For retail sale to and use only by Certified Applicators or persons under their direct supervi

SPECIMEN LABEL
REDUCED TO 75%



TORDO MIXT WEED AND BRU

ACTIVE INGREDIENTS

Picloram (4-amino-3,5,6-trichloropicolinic acid) as the triisopropanolamine salt.....	10.2%
2,4-dichlorophenoxyacetic acid as the triisopropanolamine salt.....	39.6%
INERT INGREDIENTS.....	50.2%

ACID EQUIVALENTS:

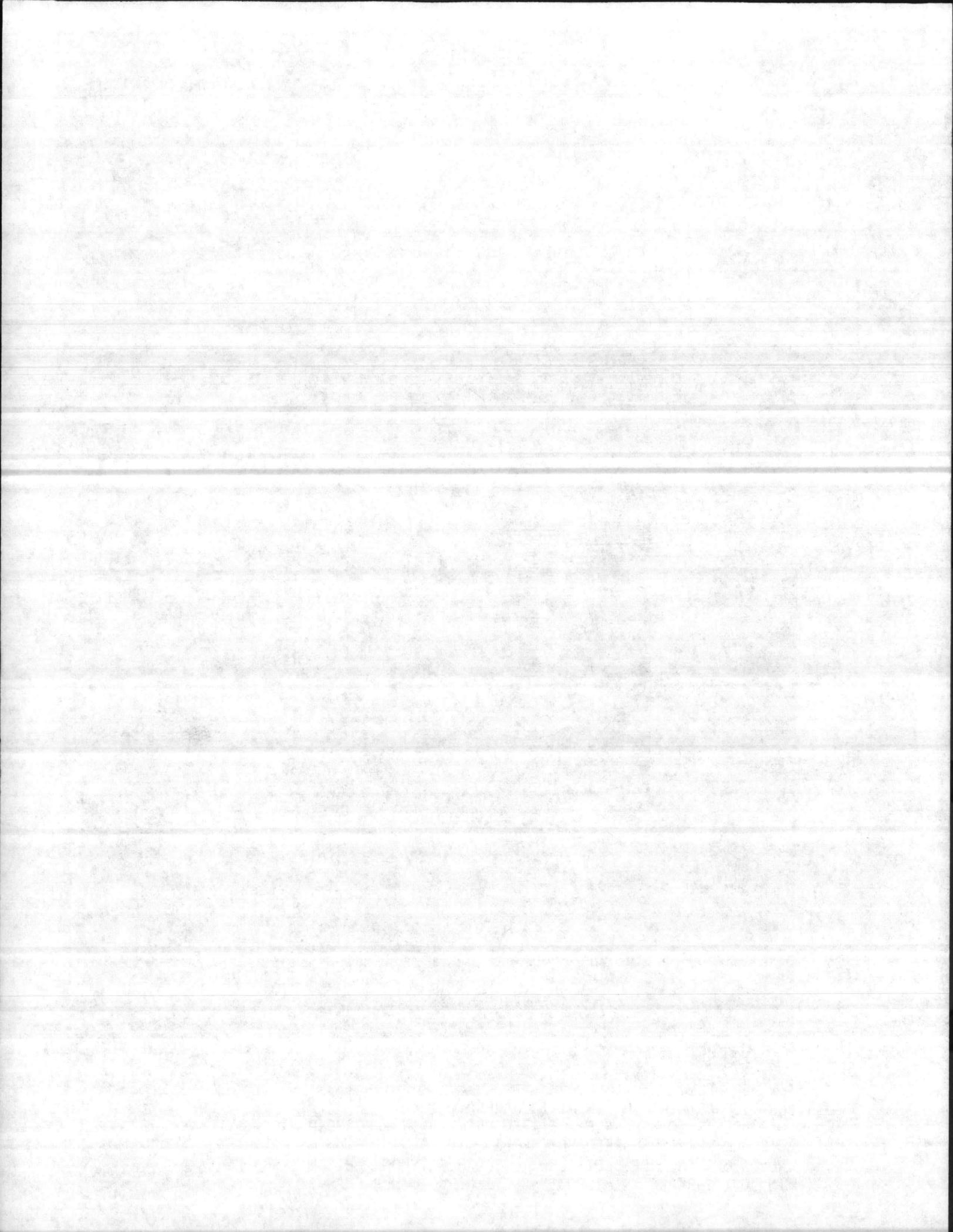
Picloram (4-amino-3,5,6-trichloropicolinic acid) ..	5.7% - 0.54 lb/gal
2,4-Dichlorophenoxyacetic acid.....	21.2% - 2 lb/gal
E.P.A. Registration No. 464-306	E.P.A. Est. 464-MI-1

PRECAUCION AL USUARIO: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.
TRANSLATION: (TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

18.93 L / 5

86-1160 PRINTED IN U.S.A. IN JANUARY, 1980.
REPLACES SPECIMEN LABEL 86-1160 PRINTED IN SEPTEMBER, 1979.
DISCARD PREVIOUS SPECIMEN LABELS.
REVISIONS INCLUDE: REISSUED TO CORRECT TYPOGRAPHICAL ERROR
IN "CUT SURFACE TREATMENTS" SECTION: NO OTHER CHANGES

SL1980



STICIDE

on and only for those uses covered by the Certified Applicator's certification.

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101

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SH KILLER

KEEP OUT OF REACH OF CHILDREN

CAUTION

**HARMFUL IF SWALLOWED • CAUSES EYE INJURY
MAY CAUSE SKIN IRRITATION**

Avoid Contact with Eyes, Skin and Clothing

Wash Well After Handling or Use • Keep Container Closed

Do Not Cut or Weld Container

When handling concentrate wear suitable eye protection. In case of eye contact, promptly flush with plenty of water; and get medical attention. Remove contaminated clothing and wash before reuse.

In case of an emergency endangering life or property involving this product, call collect **517-636-4400**

AGRICULTURAL CHEMICAL
Do Not Ship or Store with Food, Feeds, Drugs or Clothing

gal

LOT

SPECIMEN LABEL



GARLON

*For the control of Woody Plants and Broadleaf
Industrial Sites and Non-crop Areas, and for*

ACTIVE INGREDIENT:

Triclopyr (3,5,6-trichloro-2-pyridinyloxyacetic acid), butoxyethyl ester 61.6%

INERT INGREDIENTS: 38.4%

Acid Equivalent: Triclopyr 44.3% — 4 lb/gal

Contains petroleum distillates

EPA Registration No. 464-554

EPA Est. 464-MI-1

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**KEEP OUT OF REACH OF
CAUTION**

Precautionary Statements

Hazards to Humans and Domestic Animals

HARMFUL IF SWALLOWED

Avoid contact with Skin, Eyes or Clothing

Avoid Contamination of Food

Wash Thoroughly After Handling

Statement of Practical Treatment

In case of contact, flush skin with plenty of water. Get medical attention if irritation persists. Remove and wash contaminated clothing before reuse.

If swallowed, do not induce vomiting. **Call a physician.**

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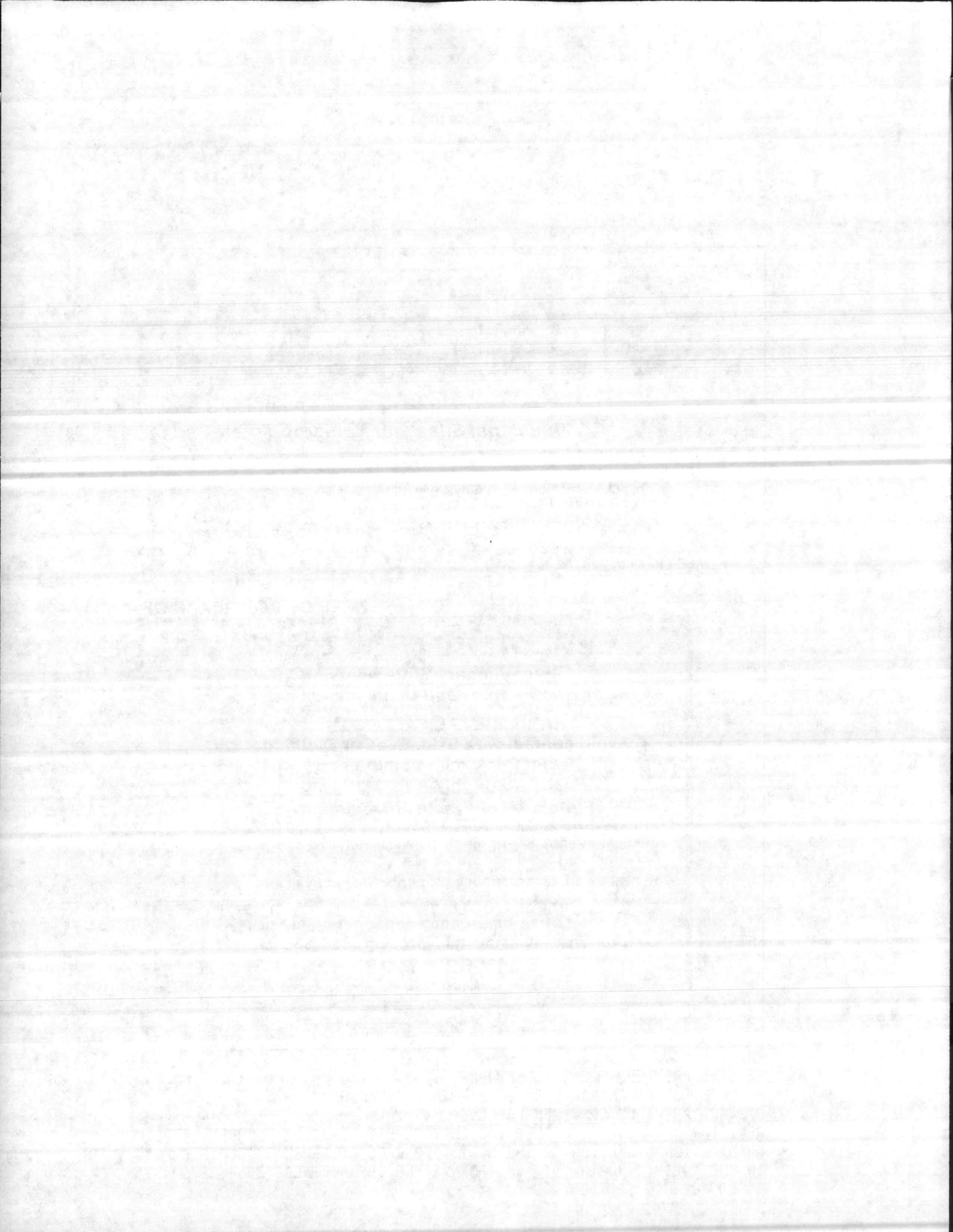
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**In case of an emergency endangering life or
property involving this product, call collect**

517-636-4400

86-1471 PRINTED IN U.S.A. IN JUNE, 1983.
REPLACES SPECIMEN LABEL 86-1471 PRINTED IN MARCH, 1983.
DISCARD PREVIOUS SPECIMEN LABELS.
REVISIONS INCLUDE: REVISED THE COPY FORMAT TO ADD A "FOREST MANAGEMENT APPLICATIONS" SECTION TO THE COPY. CONTROL OF BRUSH ON CONIFER PLANTS IN THE PACIFIC NORTHWEST, CALIFORNIA AND THE NORTHEASTERN UNITED STATES ADDED TO THIS SECTION.



* **4 HERBICIDE**

*of Weeds on Rights-of-Way,
se in Forest Site Preparation*

CAUCION AL USUARIO: Si usted no lee inglés, no use
producto hasta que la etiqueta le haya sido explicada
ente.

CAUTION: (TO THE USER: If you cannot read English, do not
use this product until the label has been fully explained to you.)

CHILDREN

Physical or Chemical Hazards

COMBUSTIBLE

**Do Not Use or Store Near Heat or Open Flame
Do Not Cut or Weld Container**

Environmental Hazards

Herbicide is toxic to fish. Keep out of lakes, ponds or
streams. Do not contaminate water by cleaning of equip-
ment or disposal of wastes. Do not apply where runoff is
likely to occur.

See Back Panel for Important Use Precautions.

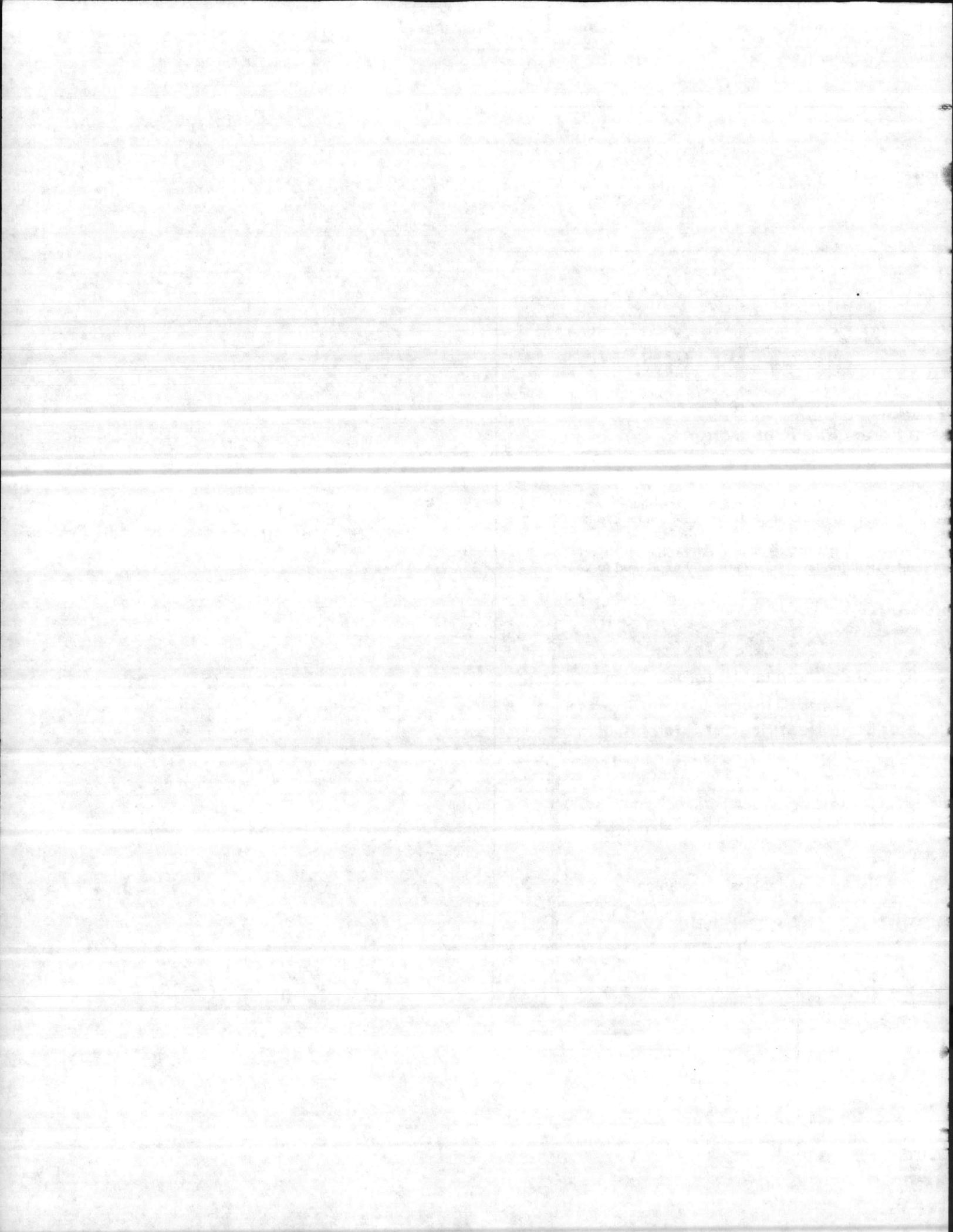
AGRICULTURAL CHEMICAL

**Do Not Ship or Store with Food, Feeds,
Drugs or Clothing**

LABEL

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Roundup

Herbicide by Monsanto

Complete Directions for Use

EPA Reg. No. 524-308-A

For use of this product in California see pages 78 and 79.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES. SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1981-2

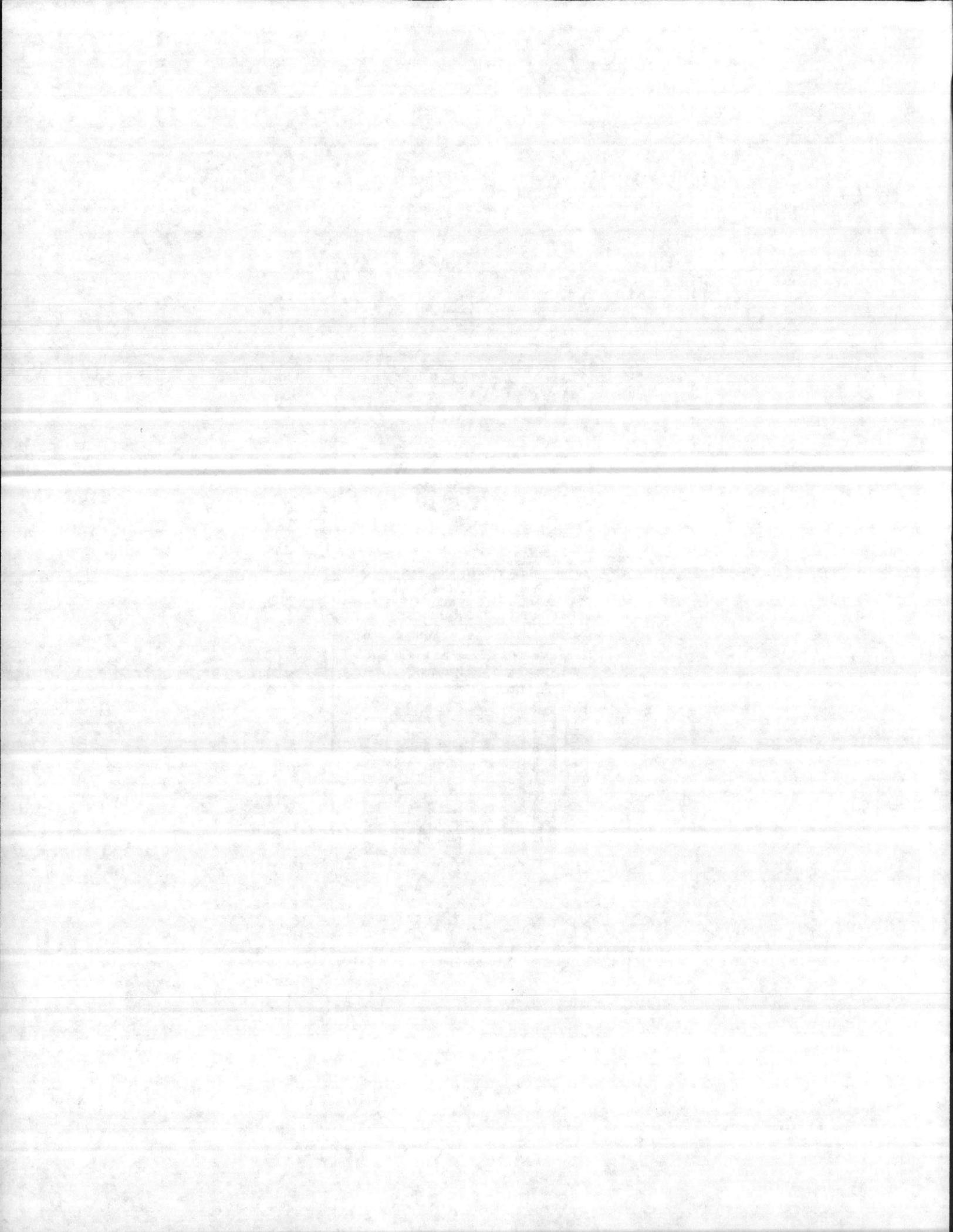
897.10-001.77/53

Read each of these sections of this label for essential product performance information.

USE THESE CONVENIENT SECTION MARKERS.



PARTIAL LABEL



Environmental Hazards

Avoid direct applications to any body of water. Do not contaminate water by disposal of waste or cleaning of equipment.

Storage and Disposal

Avoid contamination of seed, feed, and foodstuffs. Do not reuse container, destroy when empty.

ACTIVE INGREDIENT:

*Isopropylamine salt of Glyphosate 41.0%

INERT INGREDIENTS:

59.0%

100.0%

*Contains 480 grams per liter or 4 pounds of the active ingredient isopropylamine salt of N-(phosphonomethyl) glycine per U.S. gallon. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

U.S. Pat. No. 3,799,758 covers use.

Other patents are pending.

© MONSANTO COMPANY 1981

In case of an emergency involving this product, Call Collect. day or night, (314) 694-4000.

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI 63166 U.S.A.



GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

Roundup® herbicide, a water soluble liquid, mixes readily with water to be applied as a foliage spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow down activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above ground growth and deterioration of underground plant parts.

Unless otherwise specified on this label delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "Weeds Controlled" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the spray and will continue to grow.

For this reason best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (non-cultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow for the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

Roundup herbicide does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Nonionic surfactants which are labeled for use with herbicides may be used to improve wetting of foliage. Do not reduce rates of Roundup when adding

surfactant. Read and carefully observe surfactant rates, cautionary statements, and other information appearing on the surfactant label.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of Roundup with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label, may result in reduced Roundup performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

*Registered Trademark of Monsanto Company

ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift, or splash on to desirable vegetation since minute quantities of this herbicide can cause severe damage or destruction to the crop, plants, or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying avoid combinations of pressure and nozzle type that will result in splatter or

fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

Do not contaminate water by disposal of wastes or cleaning of equipment.

Do not reuse container. Destroy when empty.

MIXING AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY UNDER WIND OR OTHER CONDITIONS WHICH ALLOW DRIFT TO OCCUR. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, such as WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray

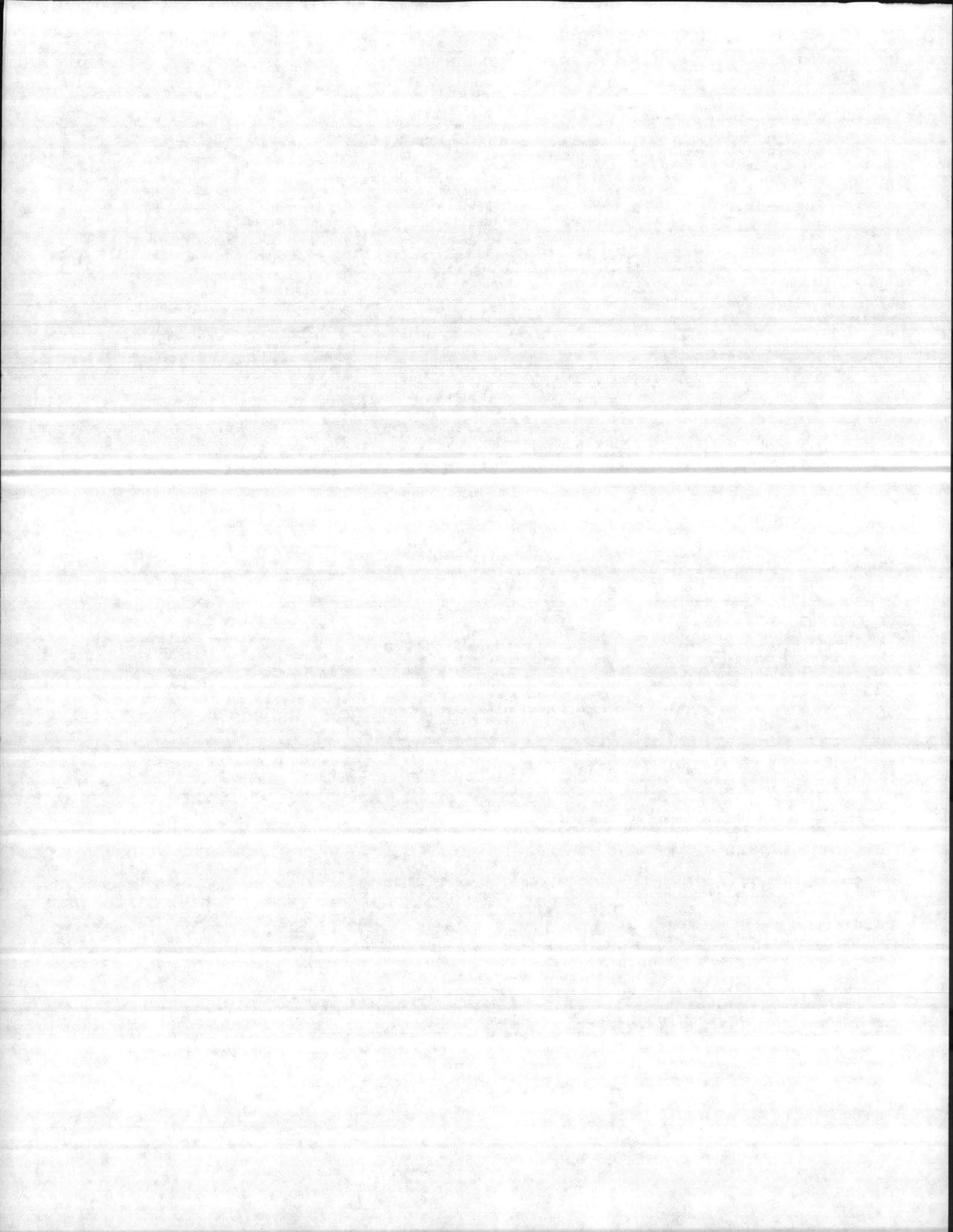
solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the proper amount of this product (see "Directions for Use" and "Weeds Controlled" sections of this label) near the end of the filling process and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and if needed use an approved anti-foam or defoaming agent.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixes of this herbicide with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of Roundup herbicide with water as follows:

1. Place a 20 to 35 mesh screen or wetting basket over filling port.
2. Through the screen, fill the sprayer tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.



SILVICULTURAL SITES and RIGHTS-OF-WAY

When applied as directed for "Non-Crop Uses" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "Weeds Controlled" section of this label. For specific rates of application for release of listed coniferous species, see the "Conifer Release" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Aerial Application — This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treat-

ments. See the "Application Equipment and Techniques" part of the "Mixing and Application" section of this label for information on how to properly spray this product by air.

Do not apply this product by air to rights-of-way sites in California.

In order to reduce the drift hazard to non-targeted plants and aquatic species when making aerial applications, maintain the following buffer zones:

1. Do not apply this product within 200 feet of any agricultural, horticultural, park, golf course, homestead or any populated areas.
2. For applications using more than 2 quarts per acre of this product, do not apply within 125 feet of lakes, ponds and streams used for significant domestic purposes or angling.
3. For applications using 2 quarts or less per acre of this product, do not apply within 75 feet of lakes, ponds and streams used for significant domestic purposes or angling.
4. When making applications on rights-of-way from 75 feet or more above ground level, do not apply within 400 feet of any agricultural, horticultural, park, golf course, homestead, populated areas, lakes, ponds and streams used for significant domestic purposes or angling.

Site Preparation — Following preplant applications of this product, any silvicultural species may be planted.

Post Directed Spray — In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

Conifer Release — Apply 1½ to 2 quarts of this product per acre for release of the following coniferous species:

Douglas fir	Pines
Pseudotsuga menziesii	Pinus spp.
Fir	Spruce
Abies spp.	Picea spp.
Hemlock	
Tsuga spp.	

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf fall has occurred. Annual and perennial weeds or woody brush or trees listed on this label may be controlled or suppressed.

For release, apply only where conifers have been established for more than a year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or

when applications are made during periods of active conifer growth.

NOTE: This product is not recommended for use as an over-the-top broadcast spray in silvicultural nurseries, ornamentals or Christmas Tree Plantations. **DO NOT USE FOR CONIFER RELEASE IN THE FOLLOWING STATES: ALABAMA, ARKANSAS, FLORIDA, GEORGIA, LOUISIANA, MISSISSIPPI, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, TEXAS AND VIRGINIA.**

FOR USE IN CONIFER RELEASE WEST OF THE CREST OF THE CASCADE MOUNTAINS:

Spring Application — Apply 1 quart of this product per acre before bud swell of conifers for control of annual weeds listed on the label.

Fall Applications — Apply 1 to 1½ quarts of this product per acre before leaf abscission of deciduous species. Apply only if no major leaf fall has occurred. Some autumn colors are acceptable.

Apply 1 quart of this product per acre for release of western hemlock.

Injection and Frill Applications — Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable injection equipment which must penetrate into living tissue. Use this product without dilution and apply at least 1 ml (1/29 oz.) of herbicide solution for each 2 to 3 inches of trunk diameter breast height (DBH). Space applications evenly around the circumference.

of the trunk. Application should be made during periods of active growth and full leaf expansion.

This treatment WILL CONTROL the following woody species:

Gum (sweet)	Poplar
Liquidambar styraciflua	Populus spp.
Oak	Sycamore
Quercus spp.	Plantanus occidentalis

This treatment WILL SUPPRESS the following woody species:

Dogwood	Hickory
Cornus spp.	Carya spp.
Gum (black)	Maple (red)
Nyssa sylvatica	Acer rubrum

NOTE TO USER

This product must not be used in areas where adverse impact on Federally designated endangered/threatened plant or aquatic species is likely.

Prior to making applications the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CONTROL OF WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS the following woody brush plants and trees:

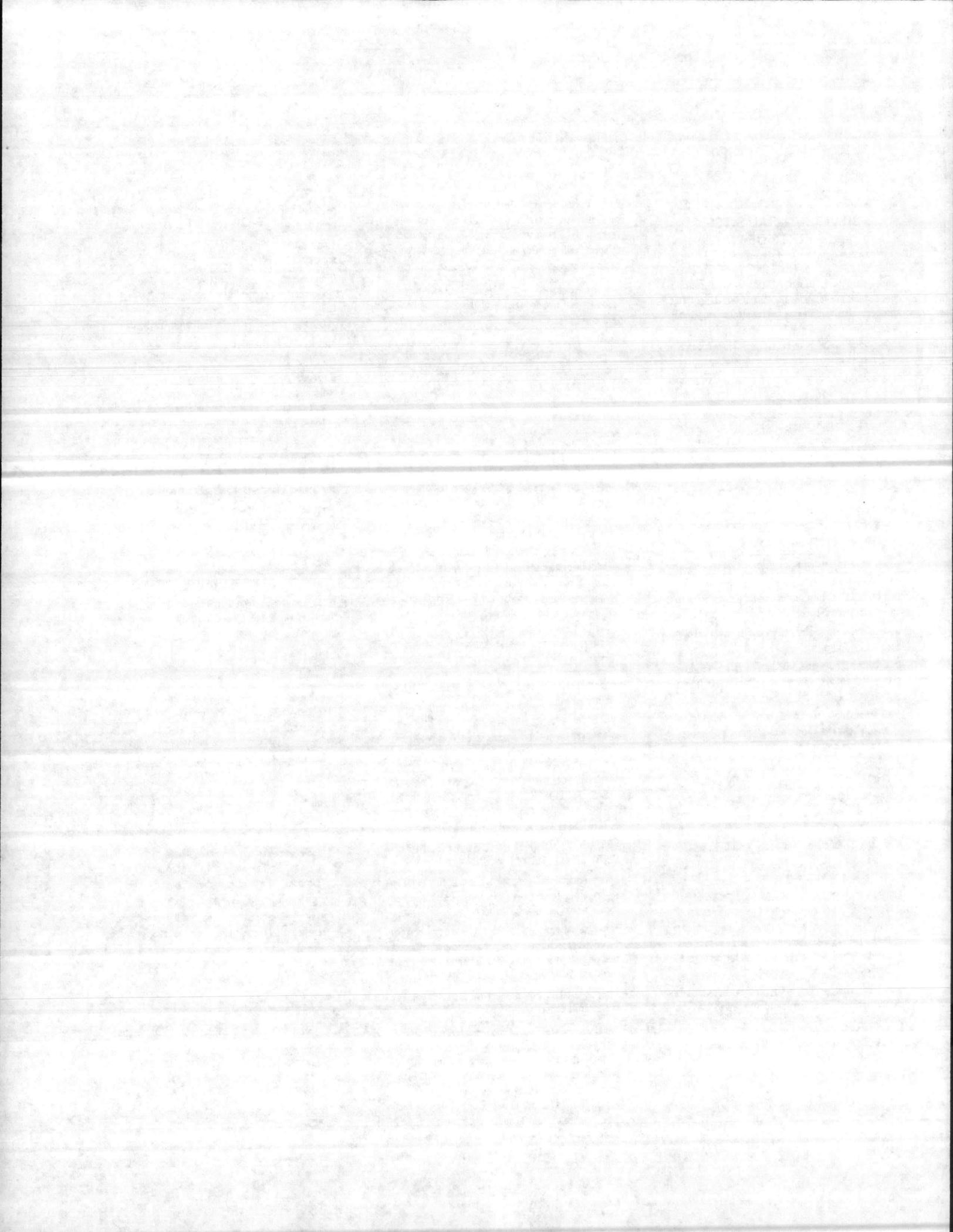
Alder	Oak****
Alnus spp.	Quercus spp.
Berries*	Multiflora rose
Rubus spp.	Rosa multiflora
Elderberry	Poison Ivy
Sambucus spp.	Rhus radicans
Honeysuckle	Poison Oak
Lonicera spp.	Rhus toxicodendron
Kudzu	Trumpet creeper
Pueraria lobata	Campsis radicans
Maple**	Willow
Acer spp.	Salix spp.

*Includes blackberry, dewberry and raspberry.

**Includes sugar maple and red maple.

***Includes red oak, white oak and Northern pin oak.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of growth.



APPLICATION EQUIPMENT AND TECHNIQUES

■ AERIAL EQUIPMENT ■

Use the recommended rates of Roundup herbicide in 5 to 15 gallons of water per acre unless otherwise specified on this label. See "WEEDS CONTROLLED" section of this label for specific rates. Aerial applications of this product may only be made as specifically recommended on this label.

Avoid direct application to any body of water.

AVOID DRIFT — DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO

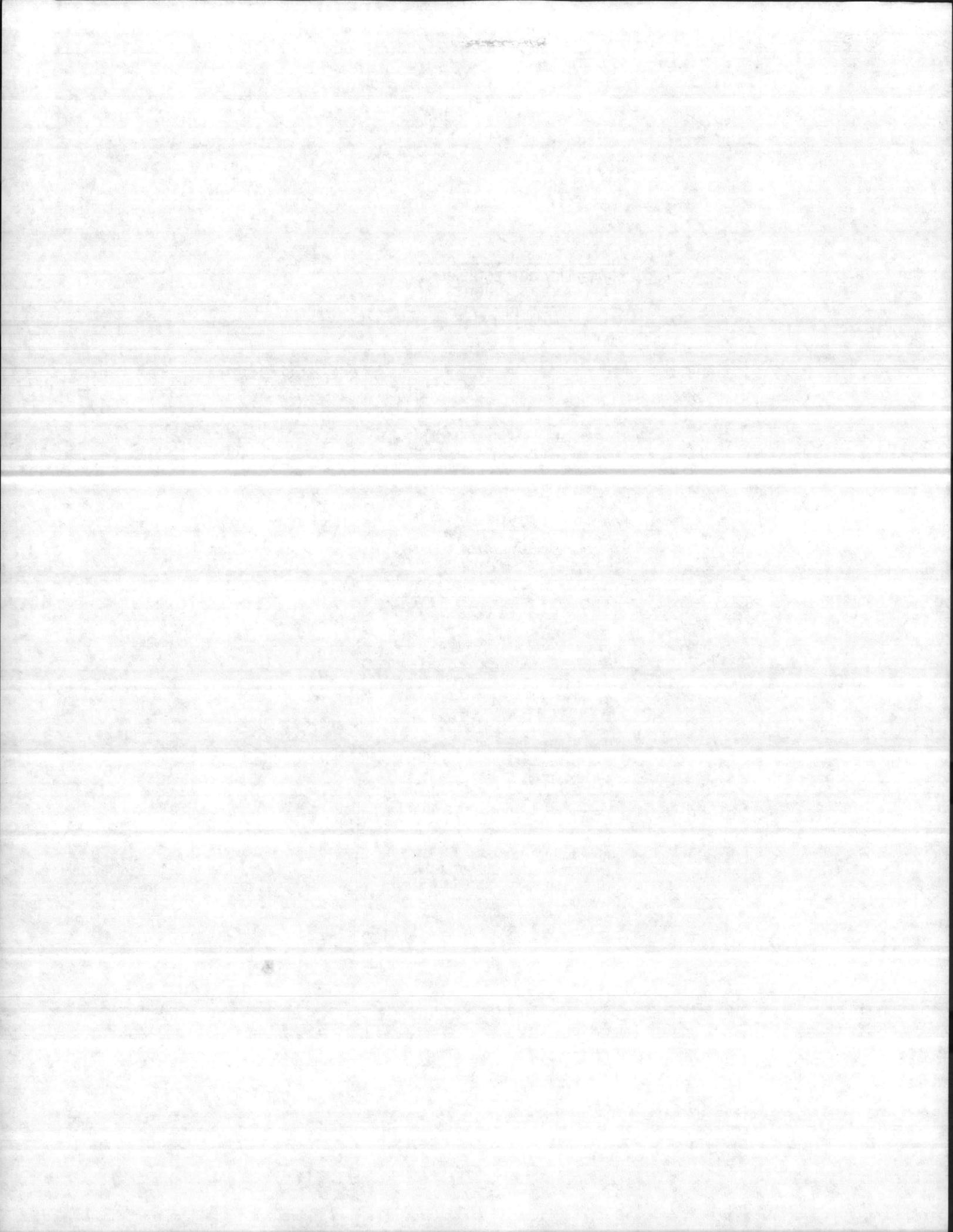
ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which disperse spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application — To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE.** The maintenance of an organic coating (Paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.



ELANCO

ID 5914

Herbicide

Spike®

40P

TM

Net Weight 50 Pounds

A surface applied herbicide for woody plant control in noncrop areas such as:

- Railroad rights-of-way
- Utility rights-of-way
- Industrial sites
- Pipelines
- Fence rows
- Firebreaks
- Ditchbanks
- Along highways
- Other noncropland areas for the control of woody plant species



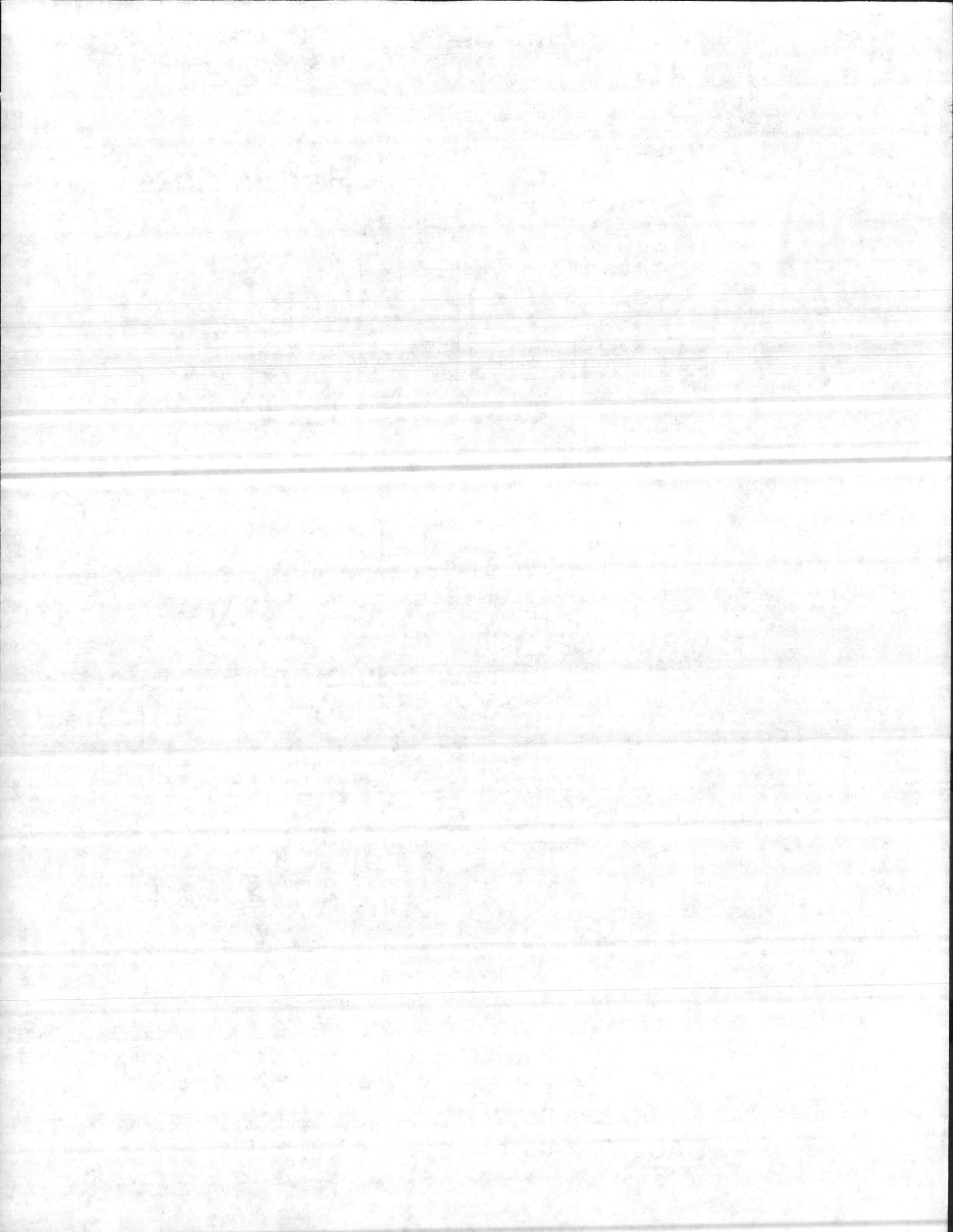
The degree and duration of control may vary with the amount of chemical applied, soil texture, and other conditions.

Active Ingredient

tebuthiuron: N-[5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]-N,N'-dimethylurea	40.0%
Inert Ingredients	60.0%

Contains 20 pounds active ingredient per 50 pound bag.
SPIKE® - the registered trademark for Elanco Products tebuthiuron.

CAUTION: KEEP OUT OF REACH OF CHILDREN
See back panel for additional caution statements.



Directions for Use Read All Directions Carefully Before Applying

Woody Species Controlled

Apply 2.5 pounds SPIKE 40P per acre to control the following species.

Haplopappus tenuisectus (Burweed)

Larrea tridentata (Creosotebush)

Mimosa buncifera (Wai-a-minute-bush)

Apply 5 pounds SPIKE 40P per acre to control the following species.

Ailanthus altissima (Tree-of-heaven)
Alnus incana (Whitebark alder)
Asterias tridentata (Big sagebrush)
Carva olabra (Pignut hickory)
Celtis occidentalis (Western hackberry)
Datura discolor (Desert thornapple)
Lycium berlandieri (Berlandier wolfberry)

Morus rubra (Red mulberry)
Pinus monticola (Western white pine)
Pinus strobus (Pine)
Prunus emarginata (Bitter cherry)
Rhus glabra (Smooth sumac)
Robinia pseudoacacia (Black locust)

Rosa multiflora (Multiflora rose)
Salvia leucophylla (Whiteleaf sage)
Salvia mellifera (Black sage)
Symphoricarpos orbiculatus (Buckbrush)
Ulmus americana (American elm)
Vaccinium ornavissacae spp. (Huckleberry)

Apply 7.5 pounds SPIKE 40P per acre to control the following species.

Abies balsamea (Balsam fir)
Acacia farnesiana (Huisache)
Acer saccharum (Sugar maple)
Alnus rugosa (Speckled alder)
Betula populifolia (Gray birch)
Carva texana (Black hickory)
Celtis pallida (Granyeno)

Condalia obulifolia (Lolebush condalia)
Ilex vomitoria (Nausea)
Larix laricina (Tamarack)
Picea glauca (White spruce)
Populus balsamifera (Balsam poplar)
Populus deltoides (Eastern cottonwood)
Quercus chrysolepis (Canyon live oak)

Quercus douglasii (Blue oak)
Quercus marilandica (Blackjack oak)
Quercus stellata (Post oak)
Sida sp. (Yellow)
Scaevola taccada (Desert yucca)
Spiraea tomentosa (Hardhack)
Ulmus alata (Winged elm)

Apply 10 pounds SPIKE 40P per acre to control the following species.

Acacia berlandieri (Guajillo)
Acacia greggii (Catclaw acacia)
Acacia rigidula (Blackbrush acacia)
Acacia tortuosa (Twisted acacia)
Acer negundo (Boxelder)
Adenostoma fasciculatum (Chamise)
Alnus rubra (Red alder)
Campsis radicans (Trumpet creeper)
Carya ovata (Shagbark hickory)
Cercocarpus betuloides (Bitchleaf mountain mahogany)
Colubrina texensis (Texas colubrina)

Condalia obovata (Bluewood condalia)
Cornus drummondii (Roughleaf dogwood)
Crataegus ssp. (Hawthorn)
Erythrina texana (Kioneywood)
Fagus grandifolia (American beech)
Jatropha dioica (Leatherstem)
Leucophyllum trutescens (Cenizo [Texas silverleaf])

Potteria angustifolia (Guayacan)
Prosopis juliflora (Mesquite)
Prunus virginiana (Common chokecherry)
Pseudotsuga menziesii (Douglas fir)
Pueraria lobata (Kudzu)
Quercus dumosa (California scrub oak)
Quercus palustris (Pin oak)
Quercus rubra (Red oak)
Quercus virginiana (Live oak)
Rhus typhina (Staghorn sumac)
Rubus allegheniensis (Allegheny blackberry)
Salvia baliciflora (Shrubby blue salvia)

Apply 12.5 pounds SPIKE 40P per acre to control the following species.

Acer macrophyllum (Bigleaf maple)
Acer distichum (Norway maple)
Acer saccharinum (Silver maple)
Baccharis spp. (Groundsel tree)
Cornus tinida (Flowering dogwood)
Fraxinus pennsylvanica (Green ash)
Gaultheria shallon (Salal)

Juniperus virginiana (Eastern redcedar)
Lantana camara (Lantana)
Liriodendron tulipifera (Tuliptree)
Melaleuca quinqueveneria (Melaleuca)
Pinus banksiana (Jack pine)
Pinus echinata (Shortleaf pine)
Pinus resinosa (Red pine)

Pinus virginiana (Virginia pine)
Quercus occidentalis (American sycamore)
Rubus serotina (Black cherry)
Taxodium distichum (White oak)
Rubus idaeus (Evergreen blackberry)
Rubus occidentalis (Black raspberry)
Schinus molle (Brazilian peppertree)

Apply 15 pounds SPIKE 40P per acre to control the following species.

Acer circinatum (Vine maple)
Arctostaphylos patula (Greenleaf manzanita)
Ceanothus cuneatus (Wedgely ceanothus)
Ceanothus leucodermis (Whitethorn chaparral)

Crataegus crus-galli (Cocksbur hawthorn)
Discaria virginiana (Persimmon)
Elaeagnus angustifolia (Russian olive)
Fraxinus americana (White ash)

Rhus laurina (Laurel sumac)
Saxifraga oppositifolia (Common greenbriar)
Ulmus parvifolia (Chinese elm)
Ulmus rupestris (Slippery elm)

Species growing on deep profile fine textured soils or deeply rooted species may show erratic control at rates listed or require a higher rate for effective control.

GENERAL DIRECTIONS

Apply SPIKE 40P uniformly to the woody plant infested area or by individual plant treatment.

Application can be made anytime during the year except when the ground is frozen or saturated with water. Effects are slow to appear and will not become apparent until after sufficient moisture has carried the SPIKE 40P into the root zone of target species. The time required to achieve control is dependent on soil texture, amount of rainfall, and depth of species rooting. Some species may go through several defoliations and retoliations over a period of approximately two years prior to dying.

Broadcast Application

SPIKE 40P may be applied using properly calibrated ground equipment. On utility rights-of-way SPIKE 40P may be applied using a helicopter equipped with application equipment such as Simplex Models 1610 and 1620. Use of equip-

ment not designed to confine the spread of SPIKE 40P to the target area may result in injury or death of desirable plant species.

Individual (Spot) Woody Plant Application

Apply SPIKE 40P by hand tossing one-quarter ounce of the pellets around the base of the unwanted woody plant. Wear protective gloves when applying pellets by hand. Repeat the treatment for each unwanted woody plant in the area. CAUTION DO NOT USE SPIKE 40P IN THIS MANNER IN ANY AREA WHERE DESIRABLE SPECIES ARE IN THE VICINITY OF THE PLANTS TO BE ELIMINATED. A SMALL AMOUNT OF SPIKE 40P IN CONTACT WITH THE ROOTS OF DESIRABLE TREES OR OTHER WOODY SPECIES MAY CAUSE SEVERE INJURY OR DEATH. THE ROOTS OF SUCH PLANTS MAY EXTEND FAR BEYOND THEIR DRIP LINES.

PRECAUTIONS



SPIKE 40P is intended for woody plant control. It is an extremely active herbicide which will kill trees, shrubs and other forms of desirable vegetation having roots extending into the treated area. Feeder roots of many species of desirable vegetation extend many feet beyond the drip line of the branches, and a very small amount of SPIKE 40P in contact with one feeder root of a tree, shrub or other desirable vegetation may cause serious injury or death to the entire plant. An arboriculturist (tree expert) should be consulted to help you to determine if the area of proposed application is free of all roots of desirable vegetation. The effect of SPIKE 40P on desirable vegetation may be irreversible and its presence in the soil may prevent growth of other desirable vegetation for some years after application. Read the entire label before using SPIKE 40P to determine if this product is suitable for the desired purpose.

Do not use SPIKE 40P on areas such as walks, driveways, streets, lawns, patios, tennis courts, swimming pools, cemeteries, or other landscaped areas or on asphalt or concrete pavement where future landscaping is planned. Do not apply on or near field crops. Do not apply on any area into which the roots of desirable vegetation may extend. Do not apply in locations where the chemical may be washed by runoff or sheet erosion in contact with roots of desirable vegetation, as severe injury or death may occur. ROOTS OF TREES, SHRUBS AND OTHER DESIRABLE VEGETATION MAY EXTEND FAR BEYOND THE DRIP LINE OF THE PLANT'S BRANCHES.

Ditchbank Usage—Do not apply SPIKE 40P to any portion of the ditchbank that will come into direct contact with water as movement of SPIKE 40P in this water to non-target plant species may result in injury or death of those plants. Do not apply on ditches used to transport irrigation or potable water.

Keep from contact with pesticides and seeds.

Thoroughly clean all traces of SPIKE 40P from application equipment after use. DO NOT EMPTY RESIDUES CLEANED FROM APPLICATION EQUIPMENT ON AREAS WHERE THEY MAY COME IN CONTACT WITH THE ROOTS OF DESIRABLE VEGETATION OR THE WATER SOURCE FOR SUCH VEGETATION.

HERBACEOUS PERENNIALS (NONWOODY PLANTS)

Do not allow domestic livestock to graze in treated areas.

Do not cut forage from treated areas for feeding livestock. SPIKE 40P may injure or suppress certain herbaceous vegetation in the treated area. Therefore, do not apply where such injury cannot be tolerated. Injury to most herbaceous perennials is reduced if SPIKE 40P is applied when this vegetation is dormant.

CAUTION

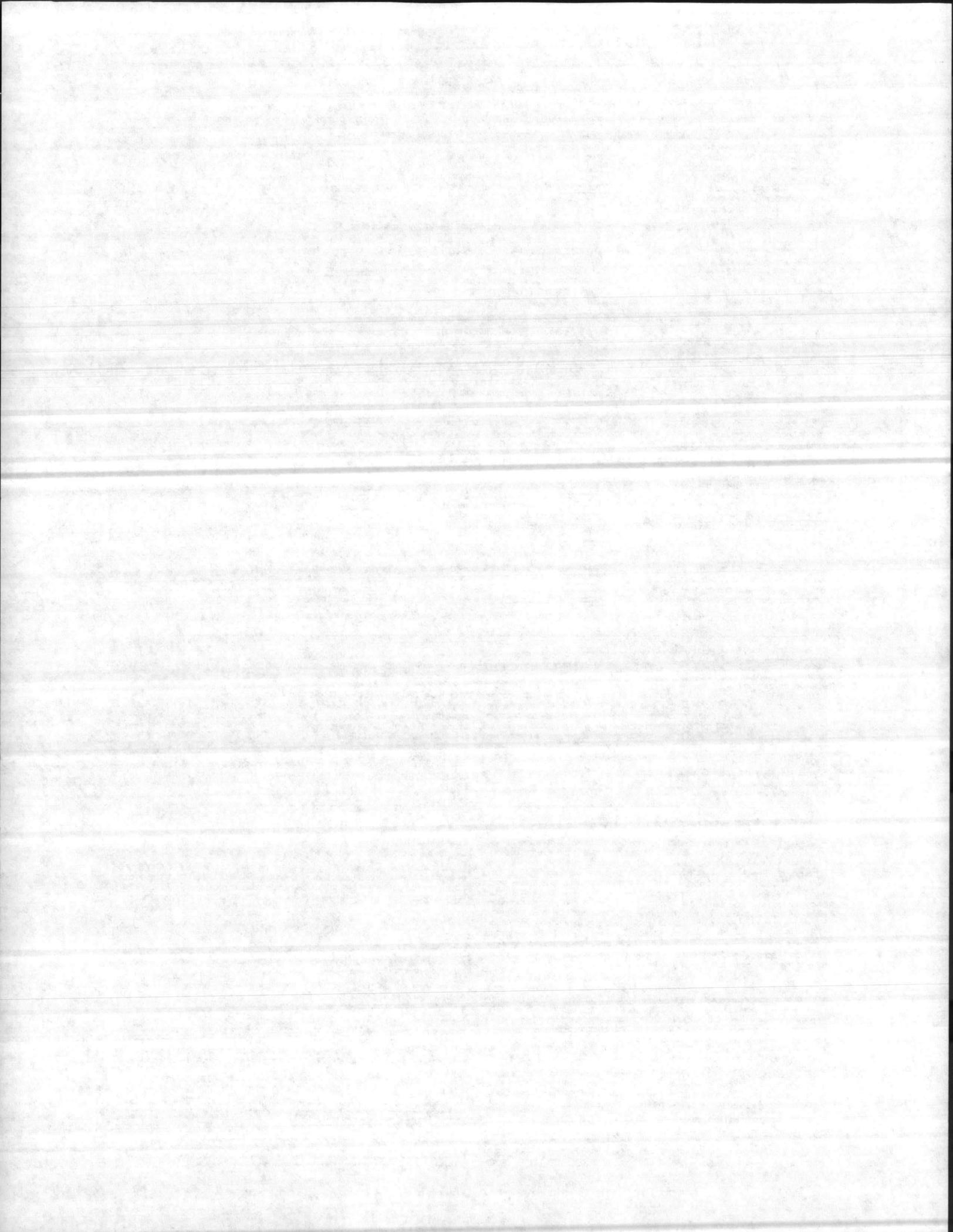
Human: Harmful if swallowed. Avoid contact with skin, eyes or clothing. Wear protective gloves when applying pellets to individual woody plants by hand. In case of contact, flush with water.

Environmental: Do not contaminate any body of water, ponds or streams as death or injury may occur to vegetation irrigated by such. Do not contaminate water by cleaning of equipment or disposal of wastes.

Storage and Disposal: The herbicidal properties of SPIKE 40P require caution in handling, storage and transportation of this product. Do not contaminate food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Dispose in an incinerator or land fill approved for pesticide containers or bury in a noncropland area away from desirable plants, trees and water supply.

Limited Warranty

The manufacturer makes no warranty, express or implied, concerning this product or its use which extends beyond the description on the label. All warranties made concerning this product apply only when used as directed. SPIKE 40P must be applied according to Elanco's written instructions, including, but not limited to, application rates, timing, and other conditions of use. Elanco expressly disclaims any warranty, express or implied, for the use of SPIKE 40P in conjunction with other products when the use is not in strict compliance with Elanco's written recommendations. Elanco disclaims liability for any damage, whether in contract, warranty, tort, negligence, strict liability or otherwise, that may be caused by the use of SPIKE 40P and under no circumstances shall Elanco be liable for special, indirect or consequential damages.



PACKAGE SIZE(S):

30 Gallon Drum
5 Gallon Drum
6-1 Gallon Cans

KRENITE®

BRUSH CONTROL AGENT
WATER SOLUBLE LIQUID

Contains 4 lbs. Active Per Gallon

ACTIVE INGREDIENT:

Ammonium salt of fosamine
[ethyl hydrogen (aminocarbonyl) phosphonate] **41.5%**

INERT INGREDIENTS **58.5%**

U.S. Pats. 3,627,507 & EPA Reg. No. 352-376
3,846,512

Keep out of reach of children.

CAUTION! MAY IRRITATE EYES, NOSE, THROAT, AND SKIN.

• Avoid breathing dust or spray mist. • Avoid contact with skin, eyes, and clothing.

B-21371 8-79

IMPORTANT

Do not use on food crops. Do not allow drift or spray mist to contact desirable trees, shrubs, or other plants, as injury may result. Do not apply to brush in standing water. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides, and seeds.

Thoroughly clean all traces of "Krenite" from application equipment after use. Flush tank, pump, hoses and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Do not contaminate water by cleaning of equipment or disposal of wastes. Do not re-use container. Crush and bury when empty.

GENERAL INFORMATION

DuPont "Krenite" Brush Control Agent is a water soluble liquid to be diluted with water and applied as a foliar spray for control and/or growth suppression of many woody species on non-cropland areas, including land adjacent to and surrounding domestic water supply reservoirs, supply streams, lakes and ponds. It is non-flammable and non-volatile.

"Krenite" is applied to brush in late summer or early fall and response is usually not observed until the following spring except for pines which may show a response soon after application. Susceptible treated plants fail to re-leaf and subsequently die.

A spray directed to only part of a susceptible plant will provide control of only the portion sprayed, resulting in a trimming effect.

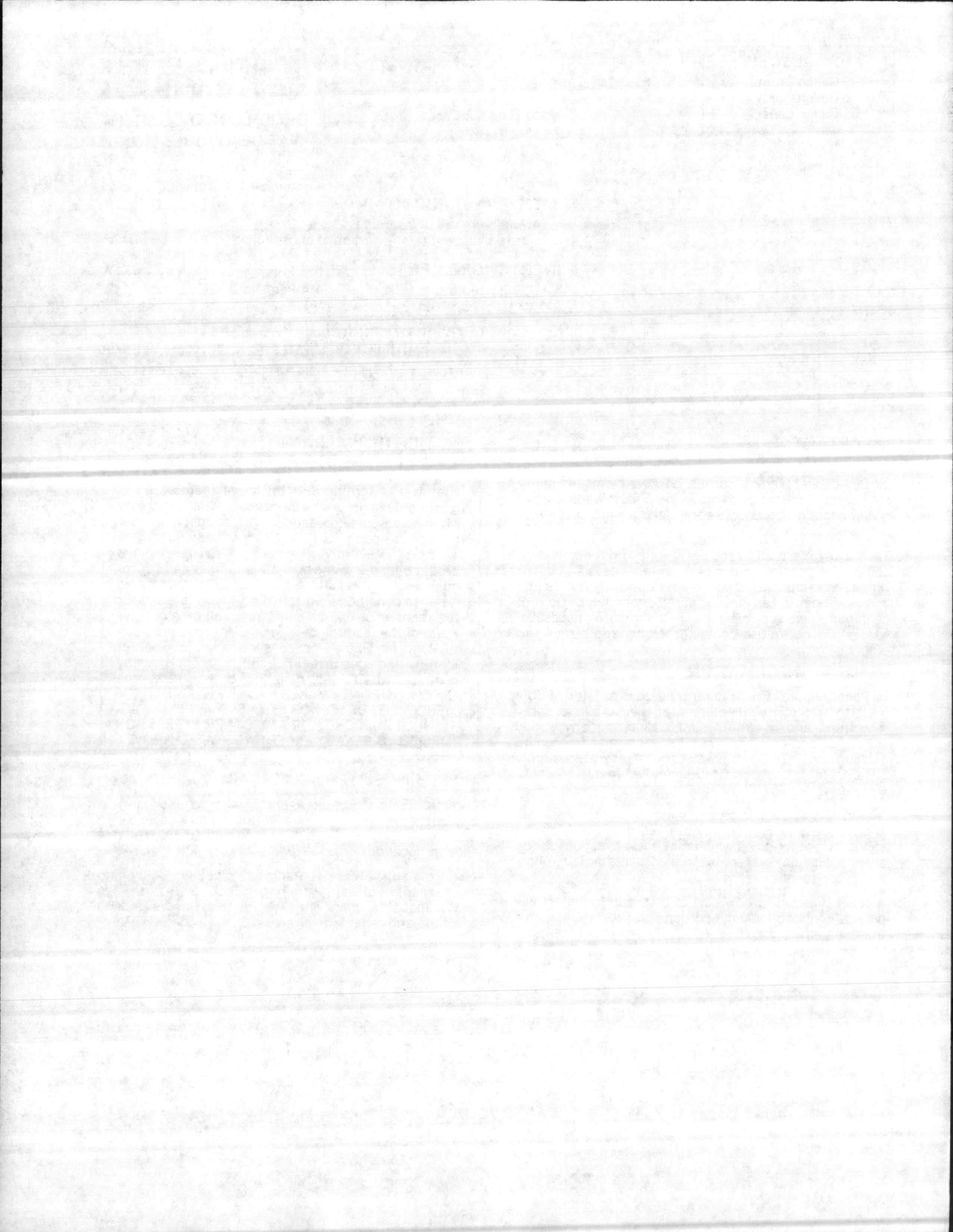
NOTICE OF WARRANTY

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of DuPont. In no case shall DuPont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. DUPONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

DIRECTIONS

"Krenite" Brush Control Agent should be used only in accordance with recommendations on this label, or in separate published DuPont recommendations available through local dealers.

Non-Cropland Areas — Railroad, pipeline, utility and highway right-of-ways, drainage ditch banks, storage areas, industrial plant sites, reforestation areas prior to planting, and other similar areas:



For control of birch, blackberry, black locust, bracken (fern), loblolly pine, pin cherry, quaking aspen, red alder, red oak, salmonberry, sumac, sweet gum, thimbleberry, vine maple, water oak, white oak, and Virginia pine, make a single foliar application using 1½ to 3 gals. of "Krenite" per acre during the 2 month period prior to fall leaf coloration. Application also provides partial control and growth suppression of other brush plants such as bigleaf maple, black cherry, blackgum, chokecherry, elm, hawthorn, hickory, persimmon, red maple, sassafras, sourwood, tulip tree (yellow poplar), willow, and white ash.

For control of American elder, eastern cottonwood, eastern white pine, multiflora rose, slippery elm, sycamore, tree-of-heaven, wild grape, and wild plum, make a single foliar application of 2 to 3 gals. "Krenite" per acre during the 2 month period prior to fall leaf coloration. Application at this rate also provides partial control and growth suppression of basswood and winged elm.

For control of field bindweed, apply 2 to 3 gals. per acre after plants begin to bloom.

Use the highest rate of the recommended rate range on dense brush stands and on stands in which species partially controlled and suppressed are dominant.

Apply either by air or ground equipment. Before applying, calibrate equipment to determine quantity of water necessary to thoroughly and uniformly cover the plants, without drenching, in a measured area to be treated. For ground equipment, use a minimum of 1½ gals. "Krenite" per 100 gals. of spray solution not to exceed 200 gals. of volume per acre; gallonage required depends on height, density and type of brush, and on type of equipment used. Spray pressure at nozzles for ground equipment should be 100 to 300 psi. Use 10 to 40 gals. of spray per acre with aerial equipment.

Measure the proper amount of "Krenite" and use agitation to thoroughly mix into the necessary volume of water. Add a nonionic surfactant such as DuPont Surfactant WK at the rate of 1 qt. per 100 gals. spray. After "Krenite" has been thoroughly mixed in the spray tank, agitation of the spray solution is not required.

For control of only a portion of a plant, as in trimming, direct the spray to thoroughly cover only the section of the plant to be controlled.

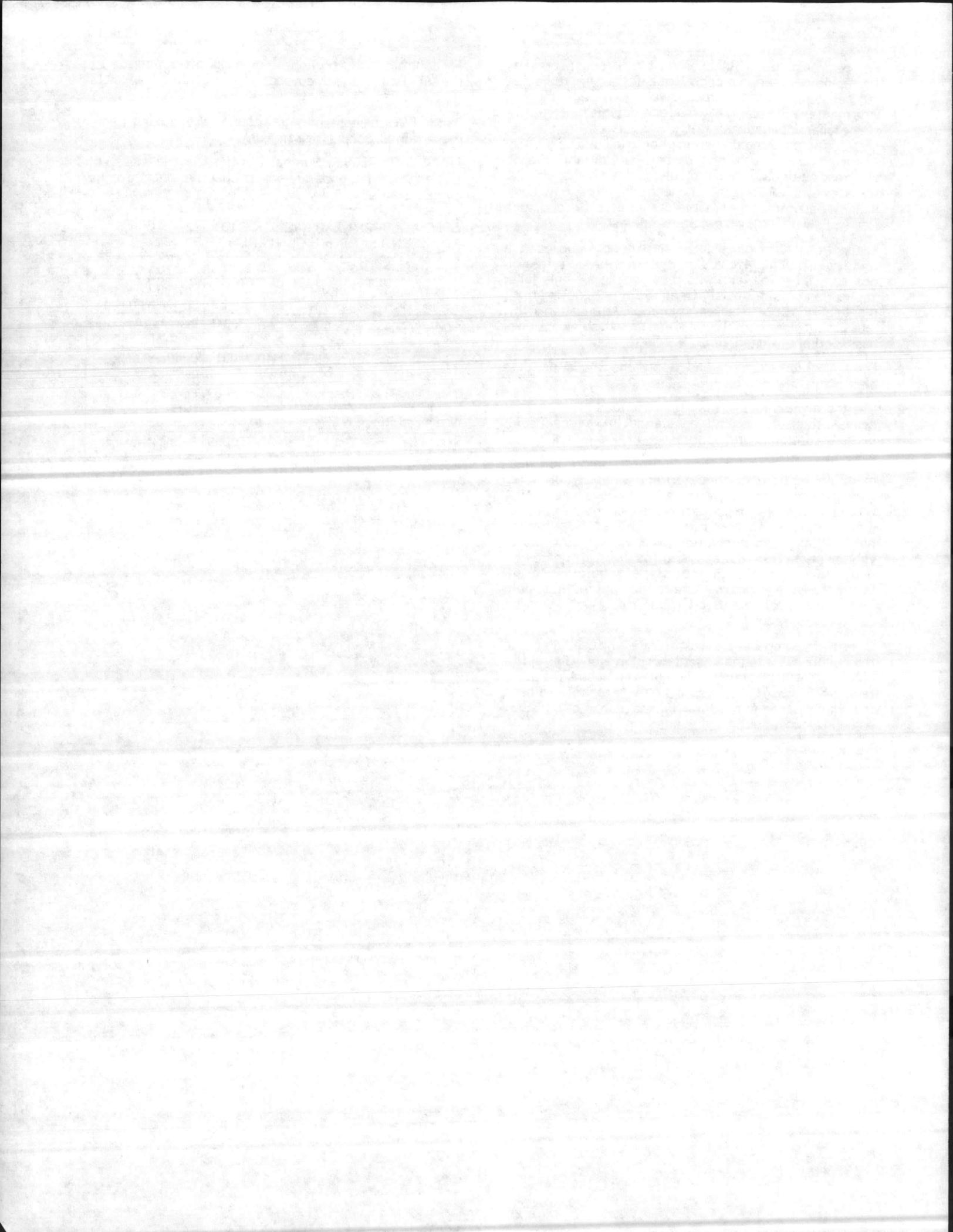
Note: Effectiveness may be reduced if, following treatment, rainfall occurs the same day.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

**SPECIAL LOCAL NEED REGISTRATIONS [24(c)]
FOR KRENITE® BRUSH CONTROL AGENT***

Crop	State	EPA SLN No.	Remarks
Forest Land	Oregon	OR-770054	Permits lower rates for conifer release
Forest Land	Washington	WA-770045	Permits lower rates for conifer release
Land Renovation	Missouri	MO-780014	Control of mixed oak species
Multiflora Rose control on non-cropland areas	Missouri	MO-770007	Permit lower use rates
Multiflora Rose control on non-cropland areas	Ohio	OH-770009	Permit lower use rates

*Copies of individual labels available upon request to nearest DuPont Biochemicals Office. For distribution and use only within the State specified.



CAUTION

Harmful if swallowed. Avoid contact with skin, eyes, and clothing. In case of contact, wash exposed skin with plenty of soap and water; flush eyes with plenty of water for at least 15 minutes and get medical attention. Keep out of reach of children.

CONTAINER DISPOSAL

Do not reuse empty container. The empty containers should be rinsed with water at least three times before disposal, and rinse water should be added to spray tank. Discard container in a safe place. Follow State Recommendations regarding container disposal.

IMPORTANT

Do not apply (except as recommended) on or near desirable plants, or in locations where the chemical may be washed or moved into contact with their roots. Applications by ground rigs and hand dispensers should be carried out only when there is no hazard from drift of product to susceptible plants such as beans, flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers and tomatoes, during both the growing and dormant periods. (Coarse sprays are less likely to drift.) Do not contaminate irrigation ditches or water used for domestic purposes. Do not allow this product to come in direct contact with seeds, insecticides or fungicides. To avoid injury to desirable plants, equipment used for BANVEL®-720 should be thoroughly cleaned before reuse to handle or apply any other agricultural chemicals.

Do not graze dairy animals on treated areas within 7 days after application.

NOTICE

Because Velsicol Chemical Corporation has no control over storage, handling, and conditions of use, which are of critical importance, Velsicol Chemical Corporation makes no representation or warranty, either express or implied, for results or residues greater than any tolerance which may be established by appropriate governmental agencies, due to misuse, improper handling or storage of this material. Nor does Velsicol Chemical Corporation assume any responsibility for injury to persons, crops, animals, soil or property arising out of misuse, improper handling or storage of this material.

VELSICOLTM

Banvel®-720

WATER SOLUBLE INDUSTRIAL HERBICIDE FOR BRUSH AND BROADLEAF WEED CONTROL

Contains 1 Pound Dicamba and 2 Pounds 2,4-D Per Gallon

ACTIVE INGREDIENTS:

Dimethylamine salt of dicamba (3,6-dichloro- <i>o</i> -anisic acid)	12.90%
Dimethylamine salts of related acids	1.80%
Dimethylamine salt of 2,4-dichloro- <i>p</i> - phenoxyacetic acid*	25.80%

INERT INGREDIENTS	59.50%
TOTAL	100.00%

*Equivalent to 21.43% 2,4-dichlorophenoxyacetic acid.

E.P.A. Reg. No. 876-177-AA

NET CONTENTS:

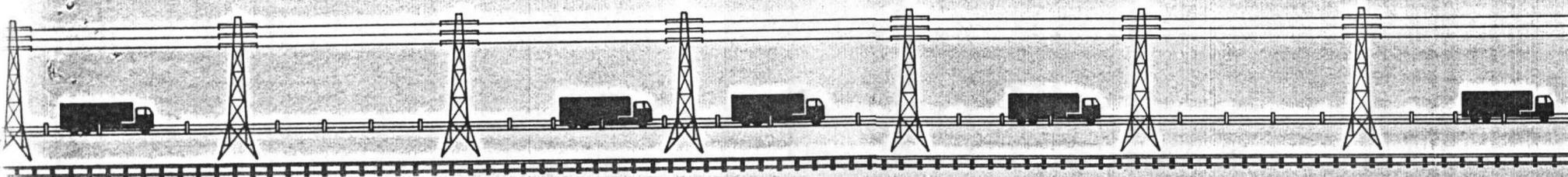
CAUTION

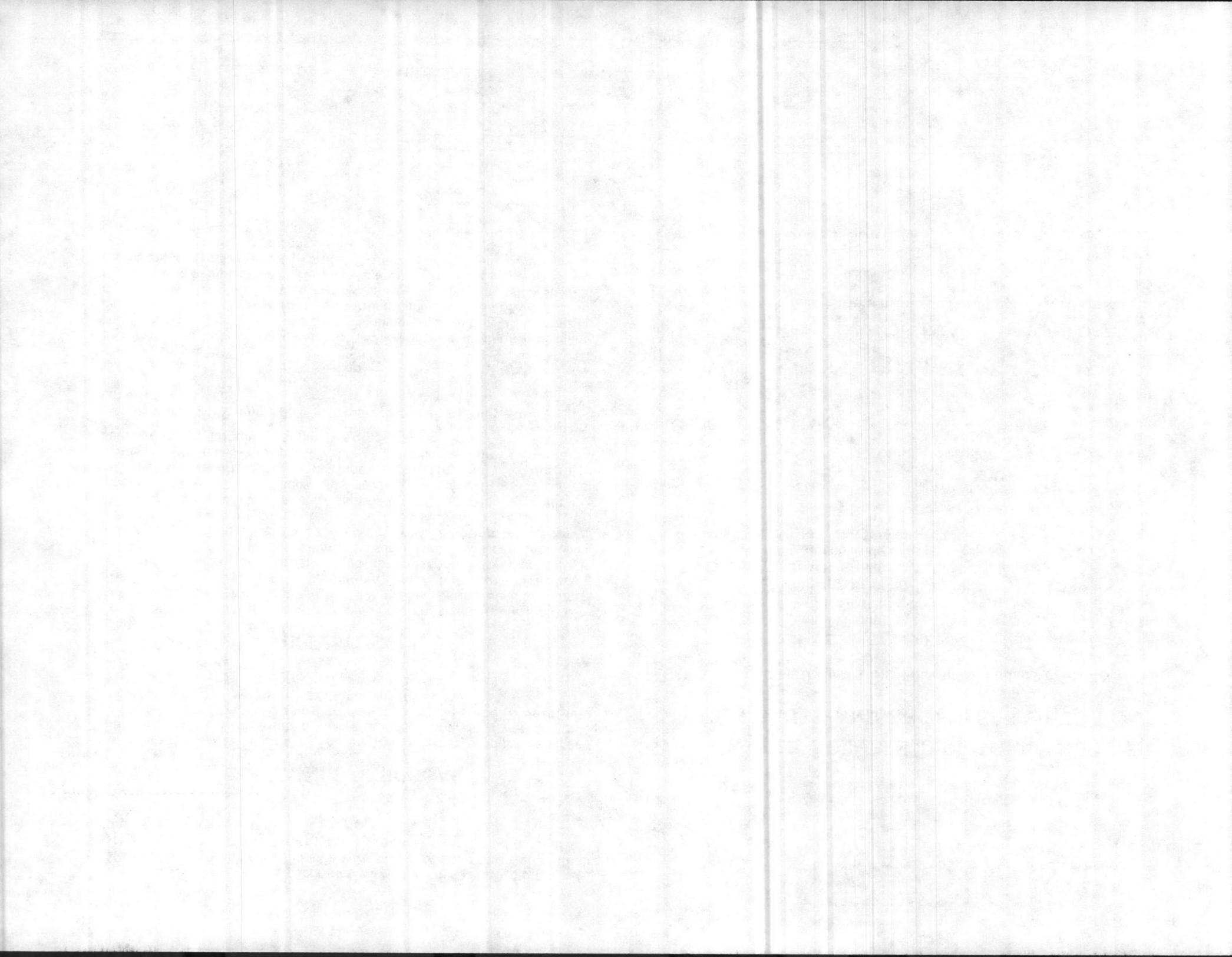
KEEP OUT OF REACH OF CHILDREN
See Side Panel for Additional Cautions.

VELSICOL CHEMICAL CORPORATION
341 EAST OHIO STREET, CHICAGO, ILLINOIS 60611

SUMMIT CHEMICAL CO.
117 WEST 24th STREET
BALTIMORE, MARYLAND 21218
301-467-1233

SPECIAL
LABEL





VELSICOLTM

Banvel[®]-720

**WATER SOLUBLE INDUSTRIAL HERBICIDE
FOR BRUSH AND BROADLEAF WEED CONTROL**

Contains 1 Pound Dicamba and 2 Pounds 2,4-D Per Gallon

ACTIVE INGREDIENTS:

Dimethylamine salt of dicamba
(3,6-dichloro-o-anisic acid) 12.90%
Dimethylamine salts of related acids . . . 1.80%
Dimethylamine salt of 2,4-dichloro-
phenoxyacetic acid* 25.80%

INERT INGREDIENTS: 59.50%
TOTAL 100.00%

*Equivalent to 21.43% 2,4-dichlorophenoxyacetic acid.

E.P.A. Reg. No. 876-177-AA

NET CONTENTS:

CAUTION

KEEP OUT OF REACH OF CHILDREN

See Side Panel for Additional Cautions.

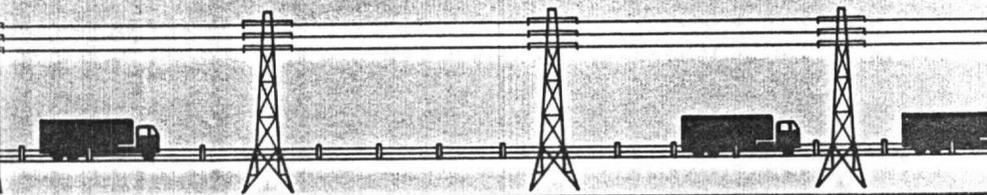
VELSICOL CHEMICAL CORPORATION

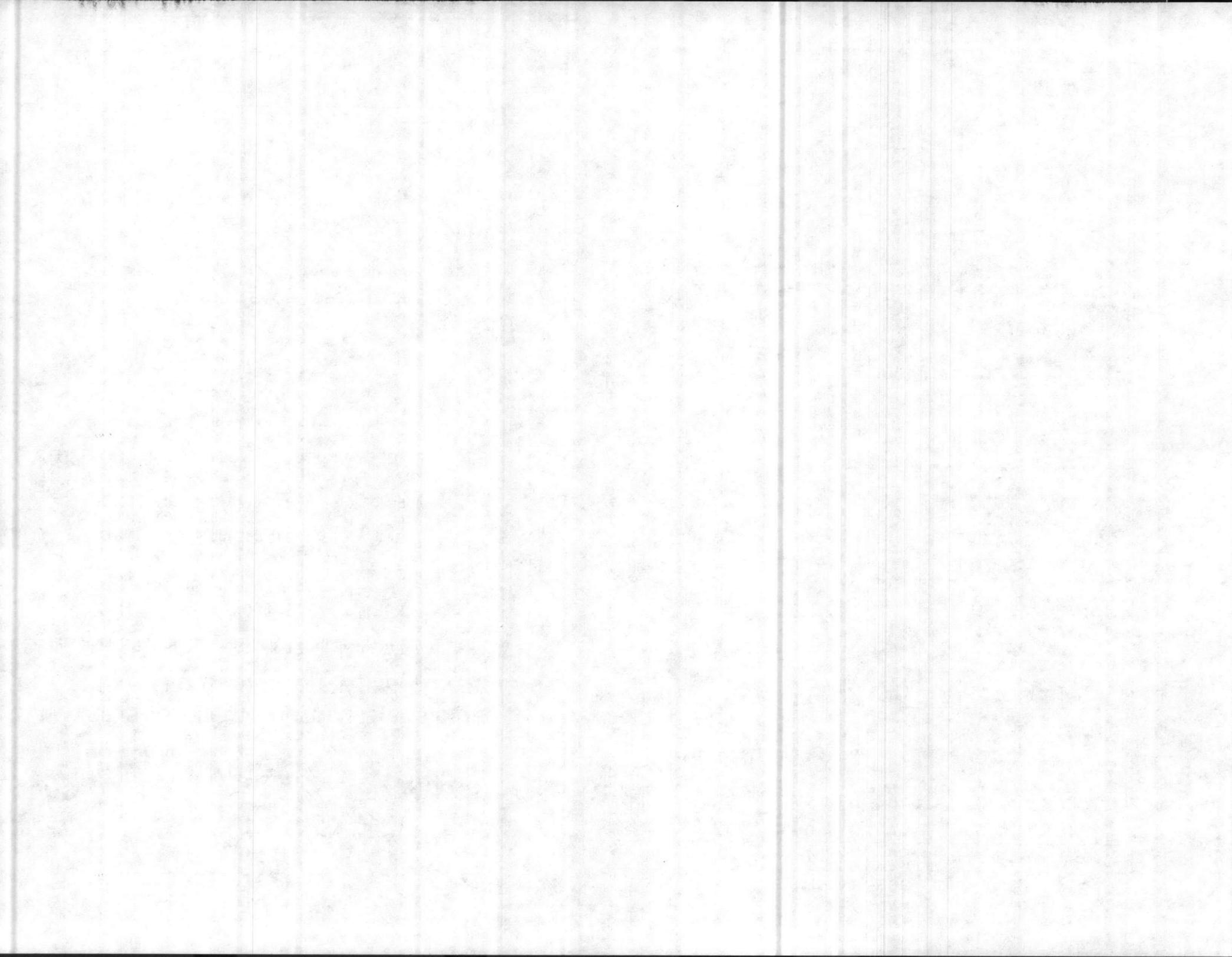
341 EAST OHIO STREET, CHICAGO, ILLINOS 60611

DIRECTIONS FOR USE

	BRUSH/WEED	RATE/100 GAL. SPRAY MIX	APPLICATION DIRECTIONS
Rights-of-Way (utility, railroad, highway, pipeline). Nonselective forest brush control, fence rows, drainage ditch banks, wasteland and similar noncropland.	For the control of unwanted woody brush including: Alder Ash Aspen Basswood Cedar Cherry Chinquapin Cucumber tree Gum Guava Dogwood Elm Hemlock Hornbeam Locust Maple Mesquite Oak Persimmon Pine Poplar Sassafras Schinus (christmasberry) Serviceberry Spicebush Spruce Sumac Sycamore Thornapple Thornberry Wild plum Willow Witchhazel Yaupon and similar woody plant species	1 gallon BANVEL-720 Herbicide plus 99 gallons of water.	Hydraulic Spray Application Stem Foliage—High Water Volume Apply BANVEL-720 Herbicide after leaves are fully developed and until three weeks before frost. Treat all stems and foliage to runoff with special emphasis on covering the root crown. Use 200 to 300 gallons of spray mix per acre depending on the height and density of the brush.
		9 gallons BANVEL-720 Herbicide plus 91 gallons of water.	Back Pack Mist Blower Application Basal Stem Foliage—Low Water Volume Apply BANVEL-720 Herbicide after leaves are fully developed until three weeks before frost. Treat all stems and root crown to runoff. Use mist blower application on brush up to 6 feet tall at the rate of 30 to 35 gallons of spray mix per acre of brush.
		3 gallons BANVEL-720 Herbicide plus 12 gallons of water.	Aerial Application 15 Gallons of Spray Mix per Acre Apply BANVEL-720 Herbicide after leaves are fully developed and until three weeks before frost. Apply at the rate of 15 gallons of spray mix per acre of brush.
		3 gallons BANVEL-720 Herbicide plus 27 gallons of water.	Aerial Application 30 Gallons of Spray Mix per Acre Apply BANVEL-720 Herbicide after leaves are fully developed and until three weeks before frost. Apply at the rate of 30 gallons of spray mix per acre of brush.
For control of annual and deep-rooted perennial broadleaf weeds.	Perennial Broadleaf Weeds and Vines Canada thistle Curly dock Dalmatian toadflax Field bindweed (morningglory) Leafy spurge Milkweed Perennial ragweed Puncturevine Redvine Russian knapweed Tansy ragwort Tievine and many other perennial broadleaf weeds.	1 gallon BANVEL-720 Herbicide plus 99 gallons of water.	For effective broad spectrum control of annual and perennial broadleaf weeds and vines, apply BANVEL-720 Herbicide when weeds are actively growing. Apply at the rate of 100 gallons of spray mix per acre. If less than 100 gallons of spray mix is applied per acre, increase the concentration of BANVEL-720 Herbicide to maintain the same rate of active ingredients per acre of brush.
	Annual Broadleaf Weeds Carpetweed Chickweed Clover Cocklebur Dogfennel English daisy Henbit Knawel Lambsquarters Mustard Pigweed Purslane Ragweed Sheep sorrel Smartweed Velvetleaf Wild buckwheat and many other annual broadleaf weeds.	0.5 gallons BANVEL-720 Herbicide plus 99.5 gallons of water.	

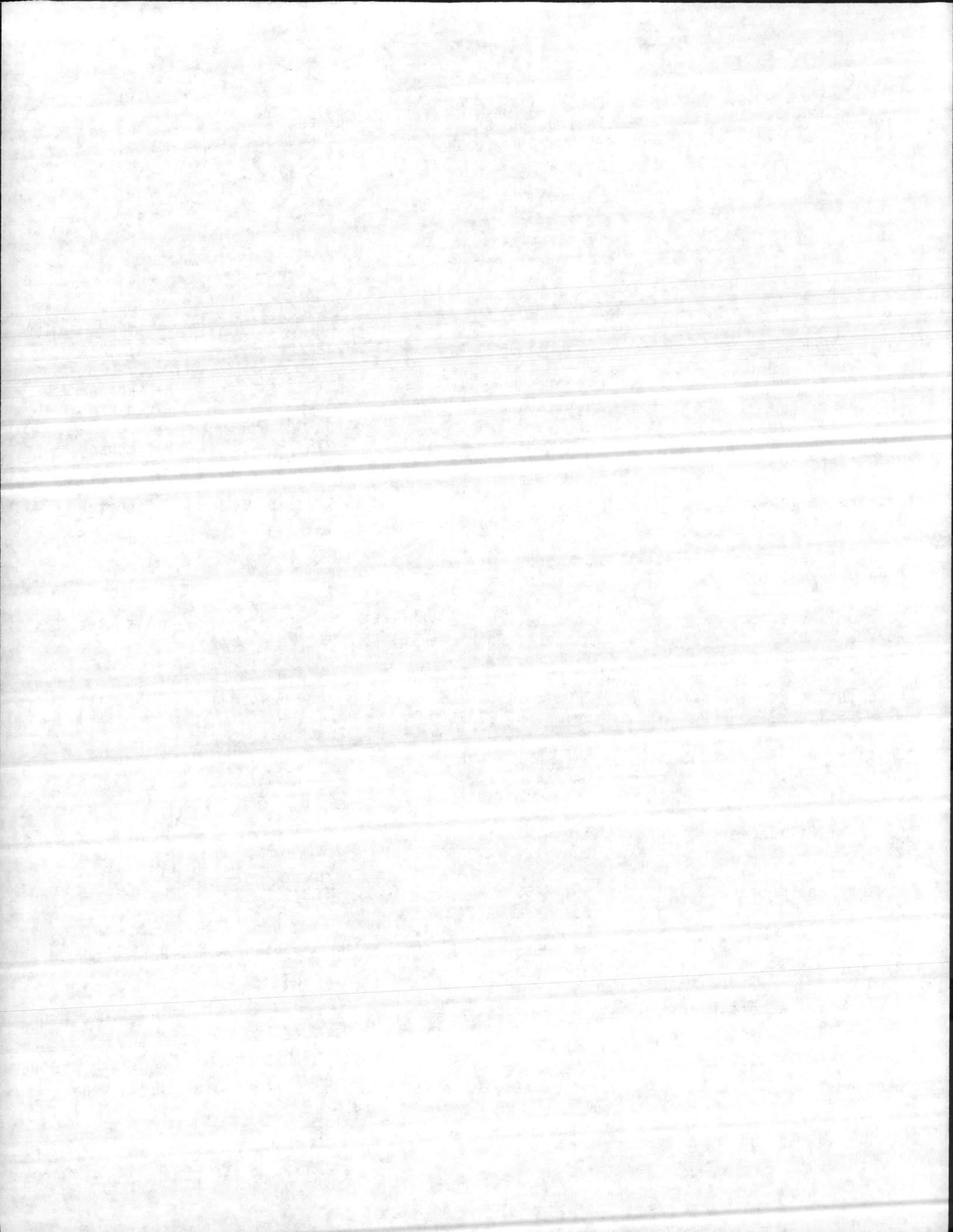
To reduce the hazards of spray drift when applying this product by ground or air equipment, apply with a drift reducing agent such as foam spray adjuvant, invert system or with other systems designed to reduce spray drift.





PROSPECTIVE BIDDING LIST FOR
VEGETATION CONTROL BY AERIAL SPRAYING

<u>CONTRACTOR</u>	<u>ADDRESS</u>	<u>TELEPHONE</u>	<u>TYPE OF AIRCRAFT</u>
*AG-Rotors, Inc. Tim Boss	Rt. 1, Box 578 Gettysburg, PA 17325	717/334-6777	Helicopter & Fixed Wing
Asplundh Company W. R. Jeffery	Blair Mill Road Willow Grove, PA 19090	215/784-4252	Helicopter
Bedford Helicopters C. K. Overstreet	Rt. 2, Box 138 Bedford, VA 24523	703/586-0223	Helicopter
Brooks County Flying Service Dave McDaniel	Box 858 Quitman, GA 31643		
Cardinal Aviation Horace Wood	Charlottesville-Albemarle Airport, Charlottesville, VA 22906		Helicopter
Caroline Helicopter Ser. Floyd Price III	P.O. Box 96 Selma, NC 27576	919/965-2311	Helicopter
*Chesapeake & Potomac Airways, Inc. Jim Bailey	BWI, Baltimore Maryland 21240	301/761-8200 761-8201	Helicopter
*Colonial Helicopter	310 W. Indian River Rd. Norfolk, VA 23523		Helicopter
*Eastern Helicopters Coop. Jerry Hill	Box 7455 Roanoke, VA 24019	703/992-2000	Helicopter
*Evergreen Helicopters Ron Quesenberry	Box 8565 Roanoke, VA 24014	703/989-3675	Helicopter
Forest Contractors Weekly Jack Noel	1021 Forrester NW Albuquerque, NM 87102		
Glen Holt Helicopter Ser. Glen Holt	Rt. 1 Brookneal, VA 24528	804/376-3058	Helicopter & Fixed Wing



<u>CONTRACTOR</u>	<u>ADDRESS</u>	<u>TELEPHONE</u>	<u>TYPE OF AIRCRAFT</u>
Helicopters of Houston Jerry W. Coon, Chief Pilot	8050 North Freeway Houston, TX 77037	703/448-5595	Hiller 12E Bell 206B III, & Hughes 500C
Imperial Helicopter, Inc. Butch Allen	Box 27113 Charlotte, NC 28219	704/392-0303	Helicopter
Industrial Helicopter Ser. Glenn A. Martin	Box 7, East Erie St. Linesville, PA 16424	804/683-5805	Helicopter
Lauterbach Flying Service	Rt. 3, Box 154 Portales, N.M. 88130		
*Munden, Douglas	802 Arctic Ave. Virginia Beach, VA 23451		Helicopter
Napieralski Forestry Ser.	Rt. 3 Witts Spring, AR 72686		Helicopter
Noxious Vegetation Control, Inc.	Box 5691 Columbus, OH 43221	614/486-8994	
*Paramount Helicopters, Inc. Larry G. Zoellner	P.O. Box 488 Cartersville, GA 30120	404/392-0541	Helicopter
Propst Helicopters	P.O. Box 85 Block Rock, AR 72415	501/878-6859 or 878-6788	Helicopter
Progressive Helicopter Ser. Willie Dodson	5301 Chanprey Road Minneapolis, MN 55436		Helicopter
Spring Hollow Ag. Ser. Caleb A. Click	Rt. 1, Box 95 Rustburg, VA 24588	804/332-6259	Helicopter
*Summit Helicopters Carl Milko, President	5422 Forest Timbers Dr. Humble, TX 77338	713/852-8473	Helicopter
Vernon, Inc.	314 W. Main Street Tazewell, VA 24651		Helicopter
Va. Aviation Helicopter, Inc.	Box 113 Ivor, VA 23866		Helicopter

