

LINURON 50W WEED KILLER



ACTIVE INGREDIENT:			
	Linuron [3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea]	<i>50%</i>	50%
INERT INGREDIENTS:			50%
	<i>2749-158</i>	TOTAL	100%
NET WEIGHT			
EPA REG. NO. 2749-158			

CAUTION: KEEP OUT OF REACH OF CHILDREN.

HAZARDOUS IF SWALLOWED. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. DO NOT BREATHE DUST. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING.

DO NOT REUSE EMPTY CONTAINER. DESTROY EMPTY CONTAINER BY CRUSHING AND BURYING IN A SAFE PLACE.

THOROUGHLY CLEAN ALL TRACES OF LINURON 50W FROM APPLICATION IMMEDIATELY AFTER USE. FLUSH TANK, PUMP, HOSES, AND BOOM WITH SEVERAL CHANGES OF WATER AFTER REMOVING NOZZLE TIPS AND SCREENS (CLEAN THESE PARTS SEPARATELY.)

IMPORTANT:

INJURY TO OR LOSS OF DESIRABLE TREES OR OTHER PLANTS MAY RESULT FROM FAILURE TO OBSERVE THE FOLLOWING:

DO NOT APPLY (EXCEPT AS RECOMMENDED FOR CROP USE), OR DRAIN OR FLUSH EQUIPMENT ON OR NEAR DESIRABLE TREES OR OTHER PLANTS, OR ON AREAS WHERE THEIR ROOTS MAY EXTEND, OR IN LOCATIONS WHERE THE CHEMICAL MAY BE WASHED OR MOVED INTO CONTACT WITH THEIR ROOTS. DO NOT USE ON LAWNS, WALKS, DRIVEWAYS, TENNIS COURTS, OR SIMILAR AREAS. PREVENT DRIFT OF DRY POWDER OR SPRAY TO DESIRABLE PLANTS. DO NOT CONTAMINATE ANY BODY OF WATER. KEEP FROM CONTACT WITH FERTILIZERS, INSECTICIDES, FUNGICIDES, AND SEEDS.

KEEP FROM CONTACT WITH FERTILIZERS, INSECTICIDES, FUNGICIDES, AND SEEDS.

OBSERVE ALL CAUTIONS AND LIMITATIONS ON LABELLING OF ALL PRODUCTS USED IN MIXTURES.

GENERAL INFORMATION

LINURON 50W WEED KILLER IS A WETTABLE POWDER TO BE MIXED IN WATER AND APPLIED AS A SPRAY FOR SELECTIVE CONTROL OF WEEDS IN CERTAIN CROPS AND FOR NON-SELECTIVE WEED CONTROL ON NON-CROPLAND AREAS. IT IS NON-CORROSIVE TO EQUIPMENT, NON-FLAMMABLE AND NON-VOLATILE.

LINURON 50W MAY BE APPLIED TO SOIL PRIOR TO EMERGENCE OF WEEDS TO CONTROL SUSCEPTIBLE WEED SEEDLINGS FOR AN EXTENDED PERIOD OF TIME; THE DEGREE OF CONTROL AND DURATION OF EFFECT WILL VARY WITH THE AMOUNT OF CHEMICAL APPLIED, SOIL TYPE, RAINFALL AND OTHER CONDITIONS. HEAVY SOILS (HIGH IN ORGANIC MATTER) REQUIRED HIGHER DOSAGE RATES THAN LIGHTER SOILS (LOW IN ORGANIC MATTER) TO OBTAIN EQUIVALENT HERBICIDE PERFORMANCE. MOISTURE IS REQUIRED TO ACTIVATE THE CHEMICAL.

LINURON 50W MAY ALSO BE USED TO CONTROL EMERGED WEEDS. RESULTS VARY WITH RATE APPLIED AND ENVIRONMENTAL CONDITIONS; BEST RESULTS ARE OBTAINED ON SUCCULENT WEEDS GROWING UNDER CONDITIONS OF HIGH HUMIDITY AND TEMPERATURES OF 70°F OR HIGHER.

SINCE THE EFFECT OF LINURON 50W VARIES WITH SOILS, UNIFORMITY OF APPLICATION, AND ENVIRONMENTAL CONDITIONS, IT IS SUGGESTED THAT GROWERS LIMIT THEIR FIRST USE TO SMALL AREAS.

DIRECTIONS FOR USE:

SELECTIVE USE IN CROPS

Preemergence Use: LINURON 50W at recommended rates, controls pigweed, purslane, ragweed, smartweed, lambsquarters, velvetleaf (buttonweed) chickweed, carpetweed, nettleleaf goosefoot, mustard, wild radish, Florida pusley, galinsoga, barnyardgrass (watergrass), fall panicum, goosegrass, foxtail, (including giant foxtail), crabgrass, and canarygrass. Treatment usually provides partial control of cocklebur, sicklepod, prickly sida (teaweed) and annual morningglory; it will not control established perennials such as Johnsongrass, Bermudagrass, purple nutsedge, Canada thistle, and field bindweed. The lower dosage rates are effective on the lighter soils and the higher rates on heavier soils and on the more resistant seedling weeds. Sufficient moisture ($\frac{1}{2}$ " to 1" on moist soils; 1" to 2" on dry soils) in the form of rainfall or sprinkler irrigation is necessary after treatment to carry the chemical into the root zone of germinating weeds; best results are obtained when this occurs within two weeks after application.

A good seed bed must be prepared before application of LINURON 50W as crop injury may result if application is made to ground which is cloddy or compacted resulting in improperly planted seed. Plant seed to depth specified. Surface of the soil should not be cultivated or disturbed after application of LINURON 50W and before emergence of the crop as weed control may be reduced and crop injury may result. However, if moisture is insufficient to activate the herbicide, a shallow cultivation (rotary hoe preferred) should be made after emergence of row crops while weeds are small enough to be controlled by mechanical means.

POSTEMERGENCE USE: LINURON 50W at recommended rates controls seedling pigweed, purslane, ragweed, mustard, lambsquarters, smartweed, velvetleaf (buttonweed), Florida pusley, annual morningglory, cocklebur, sesbania, prickly sida (teaweed), sicklepod, wild buckwheat, Amsinckia, groundsel, knawel, dog fennel, nettleleaf goosefoot, carpetweed, barnyardgrass, crabgrass, goosegrass, fall panicum, Texas panicum, canarygrass, annual ryegrass, rattail fescue, and foxtail (including giant foxtail). Best results are obtained under conditions of high humidity and temperatures over 70° F. Control of emerged weeds under drought stress is usually impractic-

EQUIPMENT: Use a tractor-mounted fixed-boom power sprayer properly calibrated to a constant speed and rate of delivery. Opening in screens should be equal to or larger than 50 mesh. Continuous agitation in the spray tank is required to keep the material in suspension. Agitate by mechanical or hydraulic means; if by-pass or return line is used, it should terminate at bottom of tank to minimize foaming. Do not use air agitation. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

For preemergence application, use 25 to 40 gals. per acre and spray pressure of 30 to 40 psi. For postemergence application, use sufficient volume (min. 25 gals. per acre) for thorough coverage of weed foliage; use spray pressure of 20 to 25 psi to keep spray drift to a minimum.

NOTE: For potatoes and wheat only, application may be made by aircraft (5 to 10 gals. per acre); avoid overlapping of spray swath and avoid application under conditions where excessive drift may occur.

SPRAY PREPARATION: Mix proper amount of LINURON 50W into necessary volume of water; for preemergence applications non-pressure nitrogen solution may be substituted for all or part of the water. Where use of Surfactant WK is recommended, dilute with 10 parts of water and add as last ingredient to nearly full tank.

USE RATES: All dosages of LINURON 50W are expressed as broadcast rates; for band treatment, use proportionately less. For example, use $\frac{1}{3}$ of the broadcast rate when treating a 14-inch band where row spacing is 42 inches. Where a range of dosages is given, use the lower rate on lighter soils (low organic matter) and the higher rates on heavier soils (high organic matter); for postemergence application, use the lower rate on smaller weeds and the higher rate on larger weeds.

REPLANTING: If initial seeding fails to produce a stand, the same crop may be replanted in soil treated preemergence with LINURON 50W. Thoroughly rework soil before replanting; do not re-treat field with a second application of LINURON 50W as injury to the crop may result. Unless otherwise directed, do not replant treated areas to any other crop within 4 months after last application as injury to subsequent crops may result.

SOIL LIMITATIONS: Unless otherwise directed, do not use on sand, loamy sand, gravelly soils or exposed subsoils nor on soils containing less than 1% organic matter as crop injury may result.

CARROTS - Preemergence Application: Make a single application at the rate of 1 to 3 lbs. per acre (for band treatment, use proportionately less); use the lower rate on lighter soils (low organic matter). Apply after planting but before crop emerges. Plant seed at least $\frac{1}{2}$ " deep.

POSTEMERGENCE APPLICATION: Apply $1\frac{1}{2}$ to 3 lbs. per acre (for band treatment, use proportionately less) as a non-directed spray after carrots are at least 3" tall. Use the lower rate on smaller weeds and the higher rate on larger established weeds. Apply before annual grasses exceed 2" in height and before broadleaf weeds exceed 6" in height. Do not exceed 40 psi spray nozzle pressure as crop injury may result.

LINURON 50W may be applied following an application of Stoddard solvent provided treatments are at least one day apart. Stoddard solvent may be applied following an application of LINURON 50W provided treatments are at least 2 weeks apart. Shorter time intervals between applications may result in injury to the crop. Do not apply LINURON 50W as a tank mixture with Stoddard solvent, surfactants, nitrogen solution, other pesticides, nor when temperature exceeds 85° F as crop injury may result.

NOTE: Carrots may be treated with multiple applications (pre-and/or postemergence) provided the total does not exceed 4 lbs. LINURON 50W per acre. (See "Replanting" limitations.) Because carrot varieties vary in their resistance, determine tolerance to LINURON 50W prior to adoption as a field practice to prevent possible crop injury; do not treat susceptible varieties which show an initial burning of foliage following postemergence treatment with LINURON 50W.

FIELD CORN – East of Rocky Mountains-Preemergence Application: Select one of the following herbicide treatments for application as a tank mixture. Make a single application after planting but before crop emerges. Plant seed at least 1-3/4" deep on flat or raised seedbeds only or injury to the crop may result. Do not spray over top of emerged corn.

Herbicide Treatment	Soil Type and Organic Matter	Replanting
LINURON 50W + RAMROD* or	Medium to Heavy	Corn may be replanted within 4 months. After 4 months any crop may be planted.
LINURON 50W + atrazine	Light to Medium	Corn may be replanted within 6 months. After 6 months, any crop may be planted except do not follow treated corn with sugar beets, tobacco or vegetables in rotation.

*Registered trademark of Monsanto Company

LINURON + "RAMROD" – BROADCAST TREATMENT (for band treatment, use proportionately less)

SOIL TYPE	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 3%)* LINURON 50W + RAMROD 65	Moderate Organic Matter (3 to 6%)* LINURON 50W + RAMROD 65
Sandy Loam	2/3 + 1 to 1-1/3 + 2	1-1/3 + 2 to 2 + 3
Silt loam	1 + 1-1/2 to 1-2/3 + 2-1/2	1-2/3 + 2-1/2 to 2-1/2 + 4
Clay loam	1-1/4 + 2 to 2 + 3	2 + 3 to 3 + 4-3/4

*Use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

LINURON 50W + ATRAZINE – BROADCAST TREATMENT (for band treatment, use proportionately less).

SOIL TYPE	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 2%)* LINURON 50W + ATRAZINE 80%	Moderate Organic Matter (2 to 5%)* LINURON 50W + ATRAZINE 80%
Sandy Loam	2/3 + 1/2 to 1 + 2/3	1 + 2/3 to 2 + 1-1/4
Silt Loam	1 + 2/3 to 1-1/2 + 1	1-1/2 + 1 to 2-1/2 + 1-1/2
Clay Loam	1-1/3 + 8/10 to 1-2/3 + 1	1-2/3 + 1 to 3 + 2

*Use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

FIELD CORN, SWEET CORN – Directed Postemergence Application: Make a single application as a directed spray after corn is at least 15" high (measured to the highest leaf surface on free standing plants). Do not spray over the top of corn. Apply only when there is sufficient differential between height of corn and weeds so that the directed spray thoroughly covers all weed foliage without contact of upper leaves or whorl of corn by spray or drift, as such contact may cause crop injury. Early cultivation (rotary hoe or other suitable equipment) will aid in achieving proper differential between height of corn and weeds.

Use 1 1/4 to 3 lbs. per acre (for band treatment, use proportionately less); add 1 pt. Surfactant WK for each 25 gals. spray mixture. Use the lower rate when weeds do not exceed 2" in height and on lighter soil types and soils low in organic matter; use the higher rate for weeds up to 5" in height and on heavier soil types and soils high in organic matter.

COTTON – East of Rocky Mountains-Directed Postemergence Application: Apply as a directed spray; adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result. Do not spray over top of cotton.

When cotton is at least 15" tall and emerged annual weeds do not exceed 2" in height, apply 1 to 1½ lbs. per acre (for band treatment, use proportionately less); add 1 pt. Surfactant WK for each 25 gals. spray mixture. If needed a second application at same rate may be made one week or later after initial treatment. Alternatively after cotton is 20" tall, make a single application of 2 to 3 lbs. per acre following last cultivation; if emerged weeds are present, add Surfactant WK as directed above.

NOTE: Do not use on Pima varieties of cotton. Do not graze treated fields or feed forage from treated areas to livestock. Do not feed gin trash to livestock.

PARSNIPS – Preemergence Application: Make a single application at the rate of 1½ to 3 lbs. per acre (for band treatment, use proportionately less); use the lower rate on lighter soils (low organic matter). Apply after planting but before crop emerges. Plant seed at least ½" deep.

POTATOES – Preemergence Application: Make a single application as a broadcast spray (ground equipment or aircraft) after planting but before crop emerges. Plant seed at least 2" deep. Do not spray over top of emerged potatoes. Where aerial application is made on bedded plantings, apply parallel to rows. If beds are to be "dragged" and/or "hilled", apply after the final "dragging" or "hilling" operation. Apply before grasses are 2" tall and before broadleaf weeds are 6" tall, preferably just before or when weed seedlings emerge. If emerged weeds are present, add 1 pt. Surfactant WK for each 25 gals. spray mixture. In irrigated areas, best results are obtained when application is made to moist soil, followed within 2 weeks by 1" to 2" of sprinkler irrigation (or rainfall).

On powder dry soils, irrigate prior to herbicide application and follow with sprinkler irrigation to activate the herbicide.

EAST OF ROCKY MOUNTAINS AND PACIFIC NORTHWEST: Apply 1½ to 2½ lbs. per acre on the lighter soils (sandy loams, silt loams; 1 to 2% organic matter) and 2½ to 4 lbs. per acre on heavier soils (silt, clay loams; 2 to 5% organic matter); on soils over 5% organic matter, use 4 lbs. per acre and apply to emerged weeds (before potatoes emerge).

WISCONSIN-CENTRAL SANDS AREA: Apply 1 lb. per acre on sands and 2 lbs. per acre on loamy sands.

SORGHUM – Preemergence Application: Select one of the following herbicide treatments for application as a tank mixture. Make a single application after planting, but before crop emerges. Plant seed at least 1" deep on flat or raised seedbeds only or injury to crop may result. Do not spray over top of emerged sorghum.

Herbicide Treatment	Soil Type and Organic Matter	Use Area
LINURON 50W + propazine	Light to medium	Southwest
LINURON 50W + Ramrod*	Medium to heavy	Great Plains

*Registered trademark of Monsanto Company

LINURON 50W + propazine – BROADCAST TREATMENT (for band treatment use proportionately less).

Soil Type	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 2%)* LINURON 50W + PROPАЗINE 80%	Moderate Organic Matter (2 to 4%)* LINURON 50W + PROPАЗINE 80%
Sandy Loam	0.6 + 0.4 to 1 + 0.6	1 + 0.6 to 1-1/2 + 1
Silt Loam	1 + 0.6 to 1-1/2 + 1	1 + 0.6 to 2 + 1-1/4

*Use the lower rates with minimum organic matter listed and the higher rates on maximum organic matter listed.

REPLANTING: Do not follow treated sorghum with any fall crop, nor with sugar beets, tobacco, vegetables or potatoes in rotation. Prior to replanting, thorough seedbed preparation including fall or spring plowing is recommended.

Linuron 50W + "Ramrod" – Broadcast Treatment (for band treatment use proportionately less).

Soil Type	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 3%)* LINURON 50W + "Ramrod" 65	Moderate Organic Matter (3 to 6%)* LINURON 50W + "Ramrod" 65
Sandy Loam	2/3 + 1 to 1-1/3 + 2	1-1/3 + 2 to 2 + 3
Silt Loam	1 + 1-1/2 to 1-2/3 + 2-1/2	1-2/3 + 2-1/2 to 2-1/2 + 4
Clay Loam	1-1/4 + 2 to 2 + 3	2 + 3 to 3 + 4-3/4

*Use the lower rates with minimum organic matter listed and the higher rates on maximum organic matter listed.

REPLANTING: Treated fields may be replanted to sorghum or field corn, if initial seeding fails to produce a stand. Thoroughly rework soil before replanting. Do not retreat field with a second application during the same crop year as injury to the crop may result. Do not replant to other crops within four months after application as injury to subsequent crops may result.

NOTE: Do not graze or feed sorghum forage or silage from treated fields to dairy animals.

SOYBEANS – Preemergence Application: Make a single application after planting but before crop emerges. Plant seed at least 1-3/4" deep on flat or raised seedbeds only or injury to the crop may result. Do not spray over top of emerged soybeans. Use at the following rates (if weeds have emerged, add 1 pt. Surfactant WK for each 25 gals. spray mixture):

BROADCAST TREATMENT (for band treatment use proportionately less).

Soil Type	Lbs. Linuron 50W in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1½ to 2%)*	Moderate Organic Matter (2 to 5%)
Sandy loam	1 to 1-2/3	1-2/3 to 3
Silt loam	1-1/4 to 2-1/3	2-1/3 to 4
Clay loam	1-1/3 to 2-2/3	2-2/3 to 5 (over 5% organic matter, use 6 lbs.)

*Use the lower rate on soils with minimum organic matter listed and the higher rate on maximum organic matter listed.

DIRECTED POSTEMERGENCE APPLICATION – MIDSOUTH AND SOUTHEAST: Apply as a directed spray when soybeans are at least 12 inches tall and when weeds do not exceed 4" in height. Direct spray to cover weed foliage within minimum contact of the soybean plant; do not spray higher than 3" on the soybean stem or crop injury may result. Do not spray over top of soybean plants. Make a single application of 1 to 2 lbs. per acre (for band treatment, use proportionately less); add 1 pt. Surfactant WK per 25 gals. spray mixture. Use the lower rate for seedling weeds and the higher rate for larger weeds. Alternatively make a split application of 1 lb. per acre followed by a second application at same rate after one week or later; do not apply more than 2 lbs. per acre per season for postemergence treatment. Do not use on soils with less than ½% organic matter.

For broadcast application, use a single flood-type spray nozzle ("K" series or equivalent) per middle mounted on an oiling shoe or gauge wheel. For band treatment, use two nozzles per row mounted on oiling shoes or gauge wheels, one on each side of row. To avoid spray drift, which may cause crop injury, do not exceed nozzle pressure of 25 psi nor use nozzle tips smaller than 8002T-Jet (or equivalent) and do not spray under windy conditions. For best results, use a preemergence treatment (such as Linuron 50W) or cultivation to control early weed growth and to increase the differential between height of soybeans and weeds.

NOTE: Do not apply within 60 days of harvest. Do not feed soybean forage or hay to livestock from fields treated postemergence. Harvested soybeans may be used for food, feed, or oil purposes.

WINTER WHEAT (Drill-Planted) Oregon, Washington, Idaho: Apply by aircraft or ground equipment as a broadcast spray prior to emergence of wheat or to semi-dormant wheat plants. Plant seed at least 1" deep; when seed is planted during abnormally dry weather, treat after soil has been settled by rainfall or irrigation. Application to actively growing plants may result in temporary yellowing (chlorosis) of wheat.

NOTE: Crop injury may result from failure to observe the following: Do not use on sand or loamy sand soils, nor on gravelly or sandy soils low in organic matter (less than 1%), nor on thinly covered or exposed subsoil areas (clay knobs); do not treat wheat planted less than 1" deep; nor treat wheat plants when maximum daily temperature exceeds 60°F; nor treat wheat where winter climatic conditions have caused "heaving" of plants, nor treat wheat plants lacking in vigor due to poor emergence, insect damage, disease, high alkalinity or other causes; nor apply after wheat has reached the "boot" stage of maturity; do not use "Linuron" 50W in combination with other pesticides, surfactants, or nitrogen solution after wheat has emerged.

Do not graze or feed immature plants to livestock. Do not replant treated areas to any rotation crop within 6 months after last application as injury to the subsequent crop may result.

EAST OF CASCADE RANGE: Make a single application as follows. If fall planted wheat fails to grow due to winter kill or adverse growing conditions after fall treatment with Linuron 50W allow 4 months before planting spring wheat. Do not re-treat field with a second application of "Linuron" during the same crop year as injury to the crop may result.

WHERE AVERAGE ANNUAL RAINFALL EXCEEDS 16 INCHES:

Fall Treatment: For early fall planted wheat (seeded before September 10), apply 1 to 1½ lbs. per acre either before or after wheat has emerged but before weeds are 2" tall. Treatment after October 1 generally gives best results. Do not apply after soil freezes in the fall.

Spring Treatment: Apply 1 to 1½ lbs. per acre as soon as wheat starts to grow in the spring. Application after weeds have reached a height of 2" may give poor results.

WHERE AVERAGE ANNUAL RAINFALL IS 10 TO 16 INCHES:

Fall or Winter Treatment: After wheat is planted in the fall, apply 1 to 1½ lbs. per acre when sufficient moisture is available to germinate wheat seed. Apply either before or after wheat has emerged, but before weeds are 2" tall and before the soil freezes. Application later than March 1 may give poor results.

WEST OF CASCADE RANGE: Make a single application at the rate of 2 to 3½ lbs. per acre as soon as possible after planting; use the lower rate on lighter soils (low organic matter). If wheat and weeds have emerged, apply before weeds are 3" to 4" tall.

NON-CROP WEED CONTROL

For short term control of annual weeds on non-cropland areas such as roadsides and fence rows-apply 2 to 6 lbs. Linuron 50W per acre in 40 to 100 gals. of water. For best results, apply shortly before weed growth begins or at early seedling stage of growth. For control of established annual weeds, add Surfactant WK at rate of 2 qts per 100 gals. of spray mixture and apply as a thorough coverage spray during periods when daily temperatures exceed 70°F. and before weed growth exceeds 8" in height.

LINURON 50W WEED KILLER IN COMBINATION WITH LASSO* HERBICIDE FOR PRE-EMERGENCE WEED CONTROL IN FIELD CORN EAST OF THE ROCKY MOUNTAINS.

*Registered trademark of Monsanto Co.

LINURON 50W Weed Killer, in combination with "Lasso" Herbicide, is recommended for use as a preemergence spray in field corn for the selective control of seedling annual weeds such as barnyardgrass, crabgrass, foxtail (including giant foxtail), witchgrass, mustard, lambquarters, pigweed, ragweed, and smartweed. Treatment will not control perennial weeds such as Bermudagrass, Johnsongrass, nutgrass, or quackgrass.

HOW TO USE

Make a single application of Linuron 50W plus "Lasso" (tank mixture) as a band or broadcast spray after planting but before corn emerges. Do not spray over top of emerged corn. Use at the following rates in 25 to 40 gals. water per acre.

BROADCAST TREATMENT:

Soil Type*	Low Organic Matter (1% to 3%)**	Moderate Organic Matter (3% to 6%)**
	Linuron 50W (lbs.) + "Lasso" (qts.)	Linuron 50W (lbs.) + "Lasso" (qts.)
Sandy loam	2/3 + 3/4 to 1-1/4 + 1	1-1/4 + 1 to 2 + 1-1/2
Silt loam	1 + 1 to 1-2/3 + 1-1/2	1-2/3 + 1-1/2 to 2-1/2 + 2
Clay loam	1-1/4 + 1-1/2 to 2 + 2	2 + 2 to 3 + 2-1/2

*Do not use on sand, loamy sand nor on soil with less than 1% organic matter as crop injury may result.

**Use the lower rates on minimum organic matter listed.

BAND TREATMENT: Use proportionately less; for example for 14" band on 42" row, use 1/3 of the above broadcast rate.

Apply with a tractor mounted power sprayer properly calibrated to a constant speed and rate of delivery. Soil should be well prepared and as free as possible from trash and clods. Plant seed at least 1/4" deep on flat or raised seedbeds only or injury to the crop may result.

Sufficient moisture (usually 1" to 2") in the form of rainfall or irrigation is necessary after treatment to carry the chemicals into the root zone of germinating weeds; best results are obtained when this occurs within two weeks after application. If moisture is insufficient to activate the chemicals or if the soil becomes crusted before crop emerges, a shallow rotary hoeing should be made before weeds become well established; otherwise avoid cultivating or disturbing the sprayed area. Do not cover treated band with soil while cultivating middles.

REPLANTING: Fields treated with the combination of Linuron 50W plus "Lasso" may be replanted to field corn or soybeans if initial seeding fails to produce a stand. Thoroughly rework soil before replanting. Do not retreat fields with a second application during the same crop year as injury to the crop may result. Do not replant to other crops within 4 months after application as injury to subsequent crops may result.

NOTE: At least 12 weeks must elapse following treatment before immature corn forage can be harvested or fed to cattle.

IMPORTANT

BEFORE USING "LINURON" 50W OR "LASSO", READ AND CAREFULLY OBSERVE THE CAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABELS.

LINURON 50W WEED KILLER AS A LAYBY TREATMENT FOR SELECTIVE CONTROL OF WEEDS IN COTTON IN ARIZONA AND CALIFORNIA.

LINURON 50W Weed Killer, in combination with Surfactant WK, is recommended for use in Arizona and California as a layby treatment in cotton for control of annual weeds such as annual morningglory, purslane, pigweed (carelessweed), barnyardgrass (watergrass), and crabgrass. Treatment provides contact kill of growing weeds as well as short-term control of germinating annual weed seedlings. At rates recommended for selective weed control in cotton, treatment will not control established Johnsongrass or other perennial weeds.

HOW TO USE

Apply 1½ to 2 lbs. of LINURON 50W in 25 to 40 gals. of water per acre when cotton is at least 20" tall and emerged annual weeds do not exceed 2" in height. Add Surfactant WK at rate of 1 pint per 25 gals. of spray mixture; dilute Surfactant WK with 10 parts of water and add as last ingredient to nearly full spray tank.

Apply as a directed spray beneath cotton plants and between the rows to cover weed foliage; adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result. Do not spray over top of cotton.

Moisture in the form of rainfall or irrigation is necessary to activate the herbicide to provide preemergence control of annual weeds. In irrigated cotton, best preemergence weed control is obtained if the field is irrigated within 3 to 4 days after application; thoroughly wet the surface of the ground over the row to carry the herbicide into the root zone of germinating weeds.

NOTE: Do not use on Pima varieties of cotton. Do not graze treated fields or feed forage from treated areas to livestock. Do not feed gin trash to livestock. Do not replant treated areas to any crop within 4 months of application as injury to subsequent crops may result.

LINURON 50W WEED KILLER IN COMBINATION WITH "LASSO" HERBICIDE FOR PREEMERGENCE WEED CONTROL IN SOYBEANS EAST OF THE ROCKY MOUNTAINS.

LINURON 50W Weed Killer, in combination with "Lasso" Herbicide, is recommended for use as a preemergence spray in soybeans for the selective control of seedling annual weeds such as barnyardgrass, crabgrass, foxtail (including giant foxtail), witchgrass, mustard, lambsquarters, pigweed, ragweed, and smartweed. Treatment will not control perennial weeds such as Bermudagrass, Johnsongrass, nutgrass, or quackgrass.

HOW TO USE

Make a single application of LINURON 50W plus "Lasso" (tank mixture) as a band or broadcast spray after planting but before soybeans emerge. Do not spray over top of emerged soybeans. Use at the following rates in 25 to 40 gals. water per acre:

BROADCAST TREATMENT:

Soil Type*	Low Organic Matter (½ to 3%)**	Moderate Organic Matter (3 to 6%)**
	Linuron 50W (lbs.) + "Lasso" (qts.)	Linuron 50W (lbs.) + "Lasso" (qts.)
Silt loam	1 + 1 to 1-2/3 + 1-1/2	1-2/3 + 1-1/2 to 2-1/2 + 2
Clay loam	1-1/4 + 1-1/2 to 2 + 2	2 + 2 to 3 + 2-1/2

*Do not use on sand, loamy sand, sandy loam, nor on soil with less than ½% organic matter as crop injury may result.

**Use the lower rates on minimum organic matter listed.

†Reg. trademark of Monsanto Co., "Lasso" contains 4 lbs. alachlor/gal.

BAND TREATMENT: Use proportionately less; for example, for 14" band on 42" row, use 1/3 of the above broadcast rate.

Apply with a tractor-mounted power sprayer properly calibrated to a constant speed and rate of delivery. Soil should be well prepared and as free as possible from trash and clods. Plant seed at least 1-3/4" deep on flat or raised seedbeds only or injury to the crop may result.

Sufficient moisture (usually 1" to 2") in the form of rainfall or irrigation is necessary after treatment to carry the chemicals into the root zone of germinating weeds, best results are obtained when this occurs within two weeks after application. If moisture is insufficient to activate the chemicals or if the soil becomes crusted before crop emerges, a shallow rotary hoeing should be made before weeds become well established; otherwise avoid cultivating or disturbing the sprayed area. Do not cover treated band with soil while cultivating middles.

REPLANTING: Fields treated with the combination of "Linuron" 50W plus "Lasso" may be replanted to soybeans or field corn if initial seeding fails to produce a stand. Thoroughly rework soil before replanting. Do not retreat fields with a second application during the same crop year as injury to the crop may result. Do not replant to other crops within 4 months after application as injury to subsequent crops may result.

LINURON 50W WEED KILLER FOR PREEMERGENCE USE IN SOYBEANS FOLLOWING PREPLANT APPLICATION OF TRIFLALIN

Linuron 50W Weed Killer may be used in soybeans as a preemergence treatment following preplant incorporated treatment with "Triflan". Treatment controls seedling weeds such as pigweed, puslane, lambsquarters, ragweed, crabgrass, goosegrass and foxtail, and usually provides partial control of certain other weeds such as smartweed, prickly sida (teaweed), velvetleaf (buttonweed), annual morningglory, and cocklebur.

Treatment will not control established perennial weeds such as Johnsongrass, nutsedge, Bermudagrass, and Canada thistle.

HOW TO USE

Apply "Treflan" and Linuron 50W in separate operations. Use "Treflan" as a preplant incorporated treatment, follow directions on the "Treflan" label.

Make a single application of "LINURON" 50W as a band or broadcast spray after planting but before soybeans emerge. Plant soybean seed at least 1 1/2" deep on flat or raised seedbeds only or injury to crop may result.

Apply "Linuron 50W" at the following rates; use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

BROADCAST TREATMENT

Soil Type*	"Lbs. Linuron 50W in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1/2 to 2%)	Moderate Organic Matter (2 to 5%)
Sandy loam	1/2 to 3/4	3/4 to 1-1/2
Silt loam	5/8 to 1-1/4	1-1/4 to 2
Clay loam	3/4 to 1-1/3	1-1/3 to 2-1/2 (over 5% organic matter, use 3 lbs.)

*Do not use on sand or loamy sand as crop injury may result.

Registered trademark of Elanco Products Company for trifluralin

Band Treatment — Use proportionately less; for example, for 14" band on 42" row, use 1/3 of above broadcast rate.

Apply with a properly calibrated fixed-boom power sprayer. Avoid overlapping and shut off spray boom when starting, turning, slowing or stopping, or injury to the crop may result. Continuous agitation in the spray tank is required to keep "Linuron 50W" in suspension.

Best results are obtained if LINURON 50W is moved into the soil by moisture (rainfall or irrigation) within two weeks after treatment. If insufficient moisture is received to activate LINURON 50W use rotary hoeing or shallow cultivation to prevent seedling weeds from becoming established.

If initial seeding fails to germinate or produce a stand, soybeans may be replanted in soil treated as described above. Whenever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation such as disking; do not re-list or move soil onto original treated band. Plant seed at least 1-3/4" deep. Do not retreat field with a second preemergence application of "Linuron 50W" during the same crop year as injury to the crop may result. For rotation crops following soybeans, observe instructions on the "Treflan" label.

"LINURON 50W" WEED KILLER IN COMBINATION WITH RAMROD + 65 SELECTIVE HERBICIDE FOR PREEMERGENCE WEED CONTROL IN SOYBEANS (SEED CROP ONLY)

LINURON 50W Weed Killer, in combination with "Ramrod" 65 Selective Herbicide, is recommended for use as a preemergence spray for control of annual weeds in soybeans grown for seed only. Treatment selectively controls seedling annual weeds such as barnyard-grass, crabgrass, foxtail (including giant foxtail), goosegrass, lambsquarters, pigweed, ragweed, purslane, and smartweed. Treatment will not control perennial weeds such as Bermudagrass, Johnsongrass, nutgrass, or quackgrass.

HOW TO USE

Make a single application of "LINURON 50W" in combination with "Ramrod" 65 as a band or broadcast spray after planting but before soybeans emerge. Do not spray over top of emerged soybeans. Use at the following rates.

BROADCAST TREATMENT

Soil Type*	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic matter (1 to 3%) "Linuron" 50W + "Ramrod" 65	Moderate organic matter (3 to 6%) "Linuron" 50W + "Ramrod" 65
Sandy loam	2/3 + 1 to 1-1/3 + 2	1-1/3 + 2 to 2 + 3
Silt loam	1 + 1-1/2 to 1-2/3 + 2-1/2	1-2/3 + 2-1/2 to 2-1/2 + 4
Clay loam	1-1/4 + 2 to 2 + 3	2 + 3 to 3 + 4-3/4

*Do not use on sand or loamy sand nor on soils with less than 1% organic matter as crop injury may result. Use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

†Registered trademark of Monsanto Company.

BAND TREATMENT: Use proportionately less; for example, for 14" band on 42" row, use 1/3 of above broadcast rate.

Apply with a tractor mounted power sprayer properly calibrated to a constant speed and rate of delivery. Soil should be well prepared and as free as possible from trash and clods. Plant seed at least 1 1/4" deep on flat or raised seedbeds only or injury to the crop may result.

Sufficient moisture (usually 1" to 2") in the form of rainfall or irrigation is necessary after treatment to carry the chemicals into the root zone of germinating weeds; best results are obtained when this occurs within two weeks after application. If moisture is insufficient to activate the chemicals or if the soil becomes crusted before crop emerges, a shallow rotary hoeing should be made before weeds become well established; otherwise, avoid cultivating or disturbing the sprayed area. Do not cover treated band with soil while cultivating middles.

REPLANTING - Fields treated with the combination of "LINURON 50W" plus "Ramrod" 65 may be replanted to soybeans, sorghum, or field corn if initial seeding fails to produce a stand. Thoroughly rework soil before replanting. Do not re-treat field with a second application during the same crop year as injury to the crop may result. Do not replant to other crops within 4 months after application as injury to subsequent crops may result.

NOTE: Do not graze or feed forage from treated areas to livestock. Do not use seed for food, feed, or oil purposes.



Manufactured for

ACETO CHEMICAL CO., INC.
AGRICULTURAL CHEMICALS DIV.

126-02 NORTHERN BOULEVARD, FLUSHING, N.Y. 11368

LINURON 50W WEED KILLER



ACTIVE INGREDIENT:

Linuron [3-(3,4-dichlorophenyl) - 1-methoxy-1-methylurea]

50%

INERT INGREDIENTS:

50%

TOTAL

100%

NET WEIGHT

EPA REG. NO. 2749-158

CAUTION: KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. DO NOT BREATHE DUST. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING.

DO NOT REUSE EMPTY CONTAINER. DESTROY EMPTY CONTAINER BY CRUSHING AND BURYING IN A SAFE PLACE.

THOROUGHLY CLEAN ALL TRACES OF LINURON 50W FROM APPLICATION IMMEDIATELY AFTER USE. FLUSH TANK, PUMP, HOSES, AND BOOM WITH SEVERAL CHANGES OF WATER AFTER REMOVING NOZZLE TIPS AND SCREENS (CLEAN THESE PARTS SEPARATELY.)

IMPORTANT:

INJURY TO OR LOSS OF DESIRABLE TREES OR OTHER PLANTS MAY RESULT FROM FAILURE TO OBSERVE THE FOLLOWING:

DO NOT APPLY (EXCEPT AS RECOMMENDED FOR CROP USE), OR DRAIN OR FLUSH EQUIPMENT ON OR NEAR DESIRABLE TREES OR OTHER PLANTS, OR ON AREAS WHERE THEIR ROOTS MAY EXTEND, OR IN LOCATIONS WHERE THE CHEMICAL MAY BE WASHED OR MOVED INTO CONTACT WITH THEIR ROOTS. DO NOT USE ON LAWNS, WALKS, DRIVEWAYS, TENNIS COURTS, OR SIMILAR AREAS. PREVENT DRIFT OF DRY POWDER OR SPRAY TO DESIRABLE PLANTS. DO NOT CONTAMINATE ANY BODY OF WATER. KEEP FROM CONTACT WITH FERTILIZERS, INSECTICIDES, FUNGICIDES, AND SEEDS.

KEEP FROM CONTACT WITH FERTILIZERS, INSECTICIDES, FUNGICIDES, AND SEEDS.

OBSERVE ALL CAUTIONS AND LIMITATIONS ON LABELLING OF ALL PRODUCTS USED IN MIXTURES.

GENERAL INFORMATION

LINURON 50W WEED KILLER IS A WETTABLE POWDER TO BE MIXED IN WATER AND APPLIED AS A SPRAY FOR SELECTIVE CONTROL OF WEEDS IN CERTAIN CROPS AND FOR NON-SELECTIVE WEED CONTROL ON NON-CROPLAND AREAS. IT IS NON-CORROSIVE TO EQUIPMENT, NON-FLAMMABLE AND NON-VOLATILE.

LINURON 50W MAY BE APPLIED TO SOIL PRIOR TO EMERGENCE OF WEEDS TO CONTROL SUSCEPTIBLE WEED SEEDLINGS FOR AN EXTENDED PERIOD OF TIME. THE DEGREE OF CONTROL AND DURATION OF EFFECT WILL VARY WITH THE AMOUNT OF CHEMICAL APPLIED, SOIL TYPE, RAINFALL AND OTHER CONDITIONS. HEAVY SOILS (HIGH IN ORGANIC MATTER) REQUIRED HIGHER DOSAGE RATES THAN LIGHTER SOILS (LOW IN ORGANIC MATTER) TO OBTAIN EQUIVALENT HERBICIDE PERFORMANCE. MOISTURE IS REQUIRED TO ACTIVATE THE CHEMICAL.

LINURON 50W MAY ALSO BE USED TO CONTROL EMERGED WEEDS. RESULTS VARY WITH RATE APPLIED AND ENVIRONMENTAL CONDITIONS; BEST RESULTS ARE OBTAINED ON SUCCULENT WEEDS GROWING UNDER CONDITIONS OF HIGH HUMIDITY AND TEMPERATURES OF 70°F OR HIGHER.

SINCE THE EFFECT OF LINURON 50W VARIES WITH SOILS, UNIFORMITY OF APPLICATION, AND ENVIRONMENTAL CONDITIONS, IT IS SUGGESTED THAT GROWERS LIMIT THEIR FIRST USE TO SMALL AREAS.

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DIRECTIONS FOR USE:

SELECTIVE USE IN CROPS

Preemergence Use: LINURON 50W at recommended rates, controls pigweed, purslane, ragweed, smartweed, lambsquarters, velvetleaf (buttonweed), chickweed, carpetweed, nettleleaf goosefoot, mustard, wild radish, Florida pusley, gallinule, barnyardgrass (watergrass), fall panicum, goosegrass, foxtail, (including giant foxtail), crabgrass, and canarygrass. Treatment usually provides partial control of cocklebur, sicklepod, prickly sida (teaweed) and annual morningglory; it will not control established perennials such as Johnsongrass, Bermudagrass, purple nutsedge, Canada thistle, and field bindweed. The lower dosage rates are effective on the lighter soils and the higher rates on heavier soils and on the more resistant seedling weeds. Sufficient moisture ($\frac{1}{2}$ " to 1" on moist soils; 1" to 2" on dry soils) in the form of rainfall or sprinkler irrigation is necessary after treatment to carry the chemical into the root zone of germinating weeds; best results are obtained when this occurs within two weeks after application.

A good seed bed must be prepared before application of LINURON 50W as crop injury may result if application is made to ground which is cloddy or compacted resulting in improperly planted seed. Plant seed to depth specified. Surface of the soil should not be cultivated or disturbed after application of LINURON 50W and before emergence of the crop as weed control may be reduced and crop injury may result. However, if moisture is insufficient to activate the herbicide, a shallow cultivation (rotary hoe preferred) should be made after emergence of row crops while weeds are small enough to be controlled by mechanical means.

POSTEMERGENCE USE: LINURON 50W at recommended rates controls seedling pigweed, goosegrass, ragweed, mustard, lambsquarters, smartweed, velvetleaf (buttonweed), Florida pusley, annual morningglory, cocklebur, sesbania, prickly sida (teaweed), sicklepod, wild buckwheat, Amsinckia, groundsel, knawel, dog fennel, nettleleaf goosefoot, carpetweed, barnyardgrass, crabgrass, goosegrass, fall panicum, Texas panicum, canarygrass, annual ryegrass, rattail fescue, and foxtail (including giant foxtail). Best results are obtained under conditions of high humidity and temperatures over 70° F. Control of emerged weeds under drought stress is usually impracticable.

EQUIPMENT: Use a tractor-mounted fixed-boom power sprayer properly calibrated to a constant speed and rate of delivery. Opening in screens should be equal to or larger than 50 mesh. Continuous agitation in the spray tank is required to keep the material in suspension. Agitate by mechanical or hydraulic means; if by-pass or return line is used, it should terminate at bottom of tank to minimize foaming. Do not use air agitation. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

For preemergence application, use 25 to 40 gals. per acre and spray pressure of 30 to 40 psi. For postemergence application, use sufficient volume (min. 25 gals. per acre) for thorough coverage of weed foliage; use spray pressure of 20 to 25 psi to keep spray drift to a minimum.

NOTE: For potatoes and wheat only, application may be made by aircraft (5 to 10 gals. per acre); avoid overlapping of spray swath and avoid application under conditions where excessive drift may occur.

SPRAY PREPARATION: Mix proper amount of LINURON 50W into necessary volume of water; for preemergence applications non-pressure nitrogen solution may be substituted for all or part of the water. Where use of Surfactant WK is recommended, dilute with 10 parts of water and add as last ingredient to nearly full tank.

USE RATES: All dosages of LINURON 50W are expressed as broadcast rates; for band treatment, use proportionately less. For example, use 1/3 of the broadcast rate when treating a 14-inch band where row spacing is 42 inches. Where a range of dosages is given, use the lower rate on lighter soils (low organic matter) and the higher rates on heavier soils (high organic matter); for postemergence application, use the lower rate on smaller weeds and the higher rate on larger weeds.

REPLANTING: If initial seeding fails to produce a stand, the same crop may be replanted in soil treated preemergence with LINURON 50W. Thoroughly rework soil before replanting; do not re-treat field with a second application of LINURON 50W as injury to the crop may result. Unless otherwise directed, do not replant treated areas to any other crop within 4 months after last application as injury to subsequent crops may result.

SOIL LIMITATIONS: Unless otherwise directed, do not use on sand, loamy sand, gravelly soils or exposed subsoils nor on soils containing less than 1% organic matter as crop injury may result.

CARROTS - Preemergence Application: Make a single application at the rate of 1 to 3 lbs. per acre (for band treatment, use proportionately less); use the lower rate on lighter soils (low organic matter). Apply after planting but before crop emerges. Plant seed at least $\frac{1}{2}$ " deep.

- **POSTEMERGENCE APPLICATION:** Apply 1½ to 3 lbs. per acre (for band treatment, use proportionately less) as a non-directed spray after carrots are at least 3" tall. Use the lower rate on smaller weeds and the higher rate on larger established weeds. Apply before annual grasses exceed 2" in height and before broadleaf weeds exceed 6" in height. Do not exceed 40 psi spray nozzle pressure as crop injury may result.

LINURON 50W may be applied following an application of Stoddard solvent provided treatments are at least one day apart. Stoddard solvent may be applied following an application of LINURON 50W provided treatments are at least 2 weeks apart. Shorter time intervals between applications may result in injury to the crop. Do not apply LINURON 50W as a tank mixture with Stoddard solvent, surfactants, nitrogen solution, other pesticides, nor when temperature exceeds 85° F as crop injury may result.

NOTE: Carrots may be treated with multiple applications (pre-and/or postemergence) provided the total does not exceed 4 lbs. LINURON 50W per acre. (See "Replanting" limitations.) Because carrot varieties vary in their resistance, determine tolerance to LINURON 50W prior to adoption as a field practice to prevent possible crop injury; do not treat susceptible varieties which show an initial burning of foliage following postemergence treatment with LINURON 50W.

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REPLANTING: Treated fields may be replanted to sorghum or field corn, if initial seeding fails to produce a stand. Thoroughly rework soil before replanting. Do not retreat field with a second application during the same crop year as injury to the crop may result. Do not replant to other crops within four months after application as injury to subsequent crops may result.

NOTE: Do not graze or feed sorghum forage or silage from treated fields to dairy animals.

SOYBEANS - Preemergence Application: Make a single application after planting but before crop emerges. Plant seed at least 1-3/4" deep on flat or raised seedbeds only or injury to the crop may result. Do not spray over top of emerged soybeans. Use at the following rates (if weeds have emerged, add 1 pt. Surfactant WK for each 25 gals. spray mixture):

BROADCAST TREATMENT (for band treatment use proportionately less).

Soil Type	Lbs. Linuron 50W in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1% to 2%)*	Moderate Organic Matter (2 to 5%)
Sandy loam	1 to 1-2/3	1-2/3 to 3
Silt loam	1-1/4 to 2-1/3	2-1/3 to 4
Clay loam	1-1/3 to 2-2/3	2-2/3 to 5 (over 5% organic matter, use 6 lbs.)

*Use the lower rate on soils with minimum organic matter listed and the higher rate on maximum organic matter listed.

DIRECTED POSTEMERGENCE APPLICATION - MIDSOUTH AND SOUTHEAST: Apply as a directed spray when soybeans are at least 12 inches tall and when weeds do not exceed 4" in height. Direct spray to cover weed foliage within minimum contact of the soybean plant; do not spray higher than 3" on the soybean stem or crop injury may result. Do not spray over top of soybean plants. Make a single application of 1 to 2 lbs. per acre (for band treatment, use proportionately less); add 1 pt. Surfactant WK per 25 gals. spray mixture. Use the lower rate for seedling weeds and the higher rate for larger weeds. Alternatively make a split application of 1 lb. per acre followed by a second application at same rate after one week or later; do not apply more than 2 lbs. per acre per season for postemergence treatment. Do not use on soils with less than 1/2% organic matter.

For broadcast application, use a single flood-type spray nozzle ("K" series or equivalent) per middle mounted on an oiling shoe or gauge wheel. For band treatment, use two nozzles per row mounted on oiling shoes or gauge wheels, one on each side of row. To avoid spray drift, which may cause crop injury, do not exceed nozzle pressure of 25 psi nor use nozzle tips smaller than 8002T-Jet (or equivalent) and do not spray under windy conditions. For best results, use a preemergence treatment (such as Linuron 50W) or cultivation to control early weed growth and to increase the differential between height of soybeans and weeds.

NOTE: Do not apply within 60 days of harvest. Do not feed soybean forage or hay to livestock from fields treated postemergence. Harvested soybeans may be used for food, feed, or oil purposes.

WINTER WHEAT (Drill-Planted) Oregon, Washington, Idaho: Apply by aircraft or ground equipment as a broadcast spray prior to emergence of wheat or to semi-dormant wheat plants. Plant seed at least 1" deep; when seed is planted during abnormally dry weather, treat after soil has been settled by rainfall or irrigation. Application to actively growing plants may result in temporary yellowing (chlorosis) of wheat.

NOTE: Crop injury may result from failure to observe the following: Do not use on sand or loamy sand soils, nor on gravelly or sandy loams low in organic matter (less than 1%), nor on thinly covered or exposed subsoil areas (clay knobs); do not treat wheat planted less than 1" deep; nor treat wheat plants when maximum daily temperature exceeds 60°F; nor treat wheat where winter climatic conditions have caused "heaving" of plants, nor treat wheat plants lacking in vigor due to poor emergence, insect damage, disease, high alkalinity or other causes; nor apply after wheat has reached the "boot" stage of maturity; do not use "Linuron" 50W in combination with other pesticides, surfactants, or nitrogen solution after wheat has emerged.

Do not graze or feed immature plants to livestock. Do not replant treated areas to any rotation crop within 6 months after last application as injury to the subsequent crop may result.

EAST OF CASCADE RANGE: Make a single application as follows. If fall planted wheat fails to grow due to winter kill or adverse growing conditions after fall treatment with Linuron 50W allow 4 months before planting spring wheat. Do not re-treat field with a second application of "Linuron" during the same crop year as injury to the crop may result.

WHERE AVERAGE ANNUAL RAINFALL EXCEEDS 16 INCHES:

Fall Treatment: For early fall planted wheat (seeded before September 10), apply 1 to 1 1/2 lbs. per acre either before or after wheat has emerged but before weeds are 2" tall. Treatment after October 1 generally gives best results. Do not apply after soil freezes in the fall.

Spring Treatment: Apply 1 to 1 1/2 lbs. per acre as soon as wheat starts to grow in the spring. Application after weeds have reached a height of 2" may give poor results.

WHERE AVERAGE ANNUAL RAINFALL IS 10 TO 16 INCHES:

Fall or Winter Treatment: After wheat is planted in the fall, apply 1 to 1 1/2 lbs. per acre when sufficient moisture is available to germinate wheat seed. Apply either before or after wheat has emerged, but before weeds are 2" tall and before the soil freezes. Application later than March 1 may give poor results.

WEST OF CASCADE RANGE: Make a single application at the rate of 2 to 3 1/2 lbs. per acre as soon as possible after planting; use the lower rate on lighter soils (low organic matter). If wheat and weeds have emerged, apply before weeds are 3" to 4" tall.

PLANTING INSTRUCTIONS AVAILABLE

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NON-CROP WEED CONTROL

For short term control of annual weeds on non-cropland areas such as roadsides and fence rows-apply 2 to 6 lbs. Linuron 50W per acre in 40 to 100 gals. of water. For best results, apply shortly before weed growth begins or at early seedling stage of growth. For control of established annual weeds, add Surfactant WK at rate of 2 qts per 100 gals. of spray mixture and apply as a thorough coverage spray during periods when daily temperatures exceed 70°F. and before weed growth exceeds 8" in height.

LINURON 50W WEED KILLER IN COMBINATION WITH LASSO* HERBICIDE FOR PRE-EMERGENCE WEED CONTROL IN FIELD CORN EAST OF THE ROCKY MOUNTAINS.

*Registered trademark of Monsanto Co.

LINURON 50W Weed Killer, in combination with "Lasso" Herbicide, is recommended for use as a preemergence spray in field corn for the selective control of seedling annual weeds such as barnyardgrass, crabgrass, foxtail (including giant foxtail), witchgrass, mustard, lambsquarters, pigweed, ragweed, and smartweed. Treatment will not control perennial weeds such as Bermudagrass, Johnsongrass, nutgrass, or quackgrass.

HOW TO USE

Make a single application of Linuron 50W plus "Lasso" (tank mixture) as a band or broadcast spray after planting but before corn emerges. Do not spray over top of emerged corn. Use at the following rates in 25 to 40 gals. water per acre.

BROADCAST TREATMENT:

Soil Type*	Low Organic Matter (1% to 3%)**	Moderate Organic Matter (3% to 6%)**
	Linuron 50W (lbs.) + "Lasso" (qts.)	Linuron 50W (lbs.) + "Lasso" (qts.)
Sandy loam	2/3 + 3/4 to 1-1/4 + 1	1-1/4 + 1 to 2 + 1-1/2
Silt loam	1 + 1 to 1-2/3 + 1-1/2	1-2/3 + 1-1/2 to 2-1/2 + 2
Clay loam	1-1/4 + 1-1/2 to 2 + 2	2 + 2 to 3 + 2-1/2

*Do not use on sand, loamy sand nor on soil with less than 1% organic matter as crop injury may result.

**Use the lower rates on minimum organic matter listed.

BAND TREATMENT: Use proportionately less; for example for 14" band on 42" row, use 1/3 of the above broadcast rate.

Apply with a tractor-mounted power sprayer properly calibrated to a constant speed and rate of delivery. Soil should be well prepared and as free as possible from trash and clods. Plant seed at least 1 1/2" deep on flat or raised seedbeds only or injury to the crop may result.

Sufficient moisture (usually 1" to 2") in the form of rainfall or irrigation is necessary after treatment to carry the chemicals into the root zone of germinating weeds; best results are obtained when this occurs within two weeks after application. If moisture is insufficient to activate the chemicals or if the soil becomes crusted before crop emerges, a shallow rotary hoeing should be made before weeds become well established; otherwise avoid cultivating or disturbing the sprayed area. Do not cover treated band with soil while cultivating middles.

REPLANTING: Fields treated with the combination of Linuron 50W plus "Lasso" may be replanted to field corn or soybeans if initial seeding fails to produce a stand. Thoroughly rework soil before replanting. Do not retreat fields with a second application during the same crop year as injury to the crop may result. Do not replant to other crops within 4 months after application as injury to subsequent crops may result.

NOTE: At least 12 weeks must elapse following treatment before immature corn forage can be harvested or fed to cattle.

IMPORTANT

BEFORE USING "LINURON" 50W OR "LASSO", READ AND CAREFULLY OBSERVE THE CAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABELS.

LINURON 50W WEED KILLER AS A LAYBY TREATMENT FOR SELECTIVE CONTROL OF WEEDS IN COTTON IN ARIZONA AND CALIFORNIA.

LINURON 50W Weed Killer, in combination with Surfactant WK, is recommended for use in Arizona and California as a layby treatment in cotton for control of annual weeds such as annual morning-glory, purslane, pigweed (carelessweed), barnyardgrass (watergrass), and crabgrass. Treatment provides contact kill of growing weeds as well as short-term control of germinating annual weed seedlings. At rates recommended for selective weed control in cotton, treatment will not control established Johnsongrass or other perennial weeds.

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HOW TO USE

Apply 1½ to 2 lbs. of LINURON 50W in 25 to 40 gals. of water per acre when cotton is at least 20" tall and emerged annual weeds do not exceed 2" in height. Add Surfactant WK at rate of 1 pint per 25 gals. of spray mixture; dilute Surfactant WK with 10 parts of water and add as last ingredient to nearly full spray tank.

Apply as a directed spray beneath cotton plants and between the rows to cover weed foliage; adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result. Do not spray over top of cotton.

Moisture in the form of rainfall or irrigation is necessary to activate the herbicide to provide preemergence control of annual weeds. In irrigated cotton, best preemergence weed control is obtained if the field is irrigated within 3 to 4 days after application; thoroughly wet the surface of the ground over the row to carry the herbicide into the root zone of germinating weeds.

NOTE: Do not use on Pima varieties of cotton. Do not graze treated fields or feed forage from treated areas to livestock. Do not feed gin trash to livestock. Do not replant treated areas to any crop within 4 months of application as injury to subsequent crops may result.

LINURON 50W WEED KILLER IN COMBINATION WITH "LESSO" HERBICIDE FOR PREEMERGENCE WEED CONTROL IN SOYBEANS EAST OF THE ROCKY MOUNTAINS.

LINURON 50W Weed Killer, in combination with "Lasso" Herbicide, is recommended for use as a preemergence spray in soybeans for the selective control of seedling annual weeds such as barnyardgrass, crabgrass, foxtail (including giant foxtail), witchgrass, mustard, lambsquarters, pigweed, ragweed, and smartweed. Treatment will not control perennial weeds such as Bermudagrass, Johnsongrass, nutgrass, or quackgrass.

HOW TO USE

Make a single application of LINURON 50W plus "Lasso" (tank mixture) as a band or broadcast spray after planting but before soybeans emerge. Do not spray over top of emerged soybeans. Use at the following rates in 25 to 40 gals. water per acre:

BROADCAST TREATMENT:

Soil Type*	Low Organic Matter (½ to 3%)**	Moderate Organic Matter (3 to 8%)**
	Linuron 50W (lbs.) + "Lasso" (qts.)	Linuron 50W (lbs.) + "Lasso" (qts.)
Silt loam	1 + 1 to 1-2/3 + 1-1/2	1-2/3 + 1-1/2 to 2-1/2 + 2
Clay loam	1-1/4 + 1-1/2 to 2 + 2	2 + 2 to 3 + 2-1/2

*Do not use on sand, loamy sand, sandy loam, nor on soil with less than ½% organic matter as crop injury may result.

**Use the lower rates on minimum organic matter listed.

†Reg. trademark of Monsanto Co., "Lasso" contains 4 lbs. alachlor/gal.

BAND TREATMENT: Use proportionately less; for example, for 14" band on 42" row, use 1/3 of the above broadcast rate.

Apply with a tractor-mounted power sprayer properly calibrated to a constant speed and rate of delivery. Soil should be well prepared and as free as possible from trash and clods. Plant seed at least 1-3/4" deep on flat or raised seedbeds only or injury to the crop may result.

Sufficient moisture (usually 1" to 2") in the form of rainfall or irrigation is necessary after treatment to carry the chemicals into the root zone of germinating weeds, best results are obtained when this occurs within two weeks after application. If moisture is insufficient to activate the chemicals or if the soil becomes crusted before crop emerges, a shallow rotary hoeing should be made before weeds become well established; otherwise avoid cultivating or disturbing the sprayed area. Do not cover treated band with soil while cultivating middles.

REPLANTING: Fields treated with the combination of "Linuron" 50W plus "Lasso" may be replanted to soybeans or field corn if initial seeding fails to produce a stand. Thoroughly rework soil before replanting. Do not retreat fields with a second application during the same crop year as injury to the crop may result. Do not replant to other crops within 4 months after application as injury to subsequent crops may result.

LINURON 50W WEED KILLER FOR PREEMERGENCE USE IN SOYBEANS FOLLOWING PREPLANT APPLICATION OF TREFLAN

Linuron 50W Weed Killer may be used in soybeans as a preemergence treatment following preplant incorporated treatment with "Treflan". Treatment controls seedling weeds such as pigweed, puslane, lambsquarters, ragweed, crabgrass, goosegrass and foxtail, and usually provides partial control of certain other weeds such as smartweed, prickly sida (teaweed), velvetleaf (buttonweed), annual morningglory, and cocklebur.

Treatment will not control established perennial weeds such as Johnsongrass, nutsedge, Bermudagrass, and Canada thistle.

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HOW TO USE

Apply "Treflan" and Linuron 50W in separate operations. Use "Treflan" as a preplant incorporated treatment, follow directions on the "Treflan" label.

Make a single application of "LINURON" 50W as a band or broadcast spray after planting but before soybeans emerge. Plant soybean seed at least 1 1/2" deep on flat or raised seedbeds only or injury to crop may result.

Apply "Linuron 50W" at the following rates; use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

BROADCAST TREATMENT

Soil Type*	"Lbs. Linuron 50W in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1% to 2%)	Moderate Organic Matter (2 to 5%)
Sandy loam	1/2 to 3/4	3/4 to 1-1/2
Silt loam	5/8 to 1-1/4	1-1/4 to 2
Clay loam	3/4 to 1-1/3	1-1/3 to 2-1/2 (over 5% organic matter, use 3 lbs.)

*Do not use on sand or loamy sand as crop injury may result.

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Band Treatment — Use proportionately less; for example, for 14" band on 42" row, use 1/3 of above broadcast rate.

Apply with a properly calibrated fixed-boom power sprayer. Avoid overlapping and shut off spray boom when starting, turning, slowing or stopping, or injury to the crop may result. Continuous agitation in the spray tank is required to keep "Linuron 50W" in suspension.

Best results are obtained if LINURON 50W is moved into the soil by moisture (rainfall or irrigation) within two weeks after treatment. If insufficient moisture is received to activate LINURON 50W use rotary hoeing or shallow cultivation to prevent seedling weeds from becoming established.

If initial seeding fails to germinate or produce a stand, soybeans may be replanted in soil treated as described above. Whenever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation such as disking; do not re-list or move soil onto original treated band. Plant seed at least 1-3/4" deep. Do not retreat field with a second preemergence application of "Linuron 50W" during the same crop year as injury to the crop may result. For rotation crops following soybeans, observe instructions on the "Treflan" label.

"LINURON 50W" WEED KILLER IN COMBINATION WITH RAMROD + 65 SELECTIVE HERBICIDE FOR PREEMERGENCE WEED CONTROL IN SOYBEANS (SEED CROP ONLY)

LINURON 50W Weed Killer, in combination with "Ramrod" 65 Selective Herbicide, is recommended for use as a preemergence spray for control of annual weeds in soybeans grown for seed only. Treatment selectively controls seedling annual weeds such as barnyard-grass, crabgrass, foxtail (including giant foxtail), goosegrass, lambsquarters, pigweed, ragweed, purslane, and smartweed. Treatment will not control perennial weeds such as Bermudagrass, Johnsongrass, nutgrass, or quackgrass.

HOW TO USE

Make a single application of "LINURON 50W" in combination with "Ramrod" 65 as a band or broadcast spray after planting but before soybeans emerge. Do not spray over top of emerged soybeans. Use at the following rates.

BROADCAST TREATMENT

Soil Type*	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic matter (1 to 3%) "Linuron" 50W + "Ramrod" 65	Moderate organic matter (3 to 6%) "Linuron" 50W + "Ramrod" 65
Sandy loam	2/3 + 1 to 1-1/3 + 2	1-1/3 + 2 to 2 + 3
Silt loam	1 + 1-1/2 to 1-2/3 + 2-1/2	1-2/3 + 2-1/2 to 2-1/2 + 4
Clay loam	1-1/4 + 2 to 2 + 3	2 + 3 to 3 + 4-3/4

*Do not use on sand or loamy sand nor on soils with less than 1% organic matter as crop injury may result. Use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

†Registered trademark of Monsanto Company.

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FIELD CORN – East of Rocky Mountains-Preemergence Application: Select one of the following herbicide treatments for application as a tank mixture. Make a single application after planting but before crop emerges. Plant seed at least 1-3/4" deep on flat or raised seedbeds only or injury to the crop may result. Do not spray over top of emerged corn.

Herbicide Treatment	Soil Type and Organic Matter	Replanting
LINURON 50W + RAMROD* or	Medium to Heavy	Corn may be replanted within 4 months. After 4 months any crop may be planted.
LINURON 50W + atrazine	Light to Medium	Corn may be replanted within 6 months. After 6 months, any crop may be planted except do not follow treated corn with sugar beets, tobacco or vegetables in rotation.

*Registered trademark of Monsanto Company

LINURON + "RAMROD" – BROADCAST TREATMENT (for band treatment, use proportionately less)

SOIL TYPE	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 3%)* LINURON 50W + RAMROD 65	Moderate Organic Matter (3 to 6%)* LINURON 50W + RAMROD 65
Sandy Loam	2/3 + 1 to 1-1/3 + 2	1-1/3 + 2 to 2 + 3
Silt loam	1 + 1-1/2 to 1-2/3 + 2-1/2	1-2/3 + 2-1/2 to 2-1/2 + 4
Clay loam	1-1/4 + 2 to 2 + 3	2 + 3 to 3 + 4-3/4

*Use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

LINURON 50W + ATRAZINE – BROADCAST TREATMENT (for band treatment, use proportionately less).

SOIL TYPE	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 2%)* LINURON 50W + ATRAZINE 80%	Moderate Organic Matter (2 to 5%)* LINURON 50W + ATRAZINE 80%
Sandy Loam	2/3 + 1/2 to 1 + 2/3	1 + 2/3 to 2 + 1-1/4
Silt Loam	1 + 2/3 to 1-1/2 + 1	1-1/2 + 1 to 2-1/2 + 1-1/2
Clay Loam	1-1/3 + 8/10 to 1-2/3 + 1	1-2/3 + 1 to 3 + 2

*Use the lower rates on soils with minimum organic matter listed and the higher rates on maximum organic matter listed.

FIELD CORN, SWEET CORN – Directed Postemergence Application: Make a single application as a directed spray after corn is at least 15" high (measured to the highest leaf surface on free standing plants). Do not spray over the top of corn. Apply only when there is sufficient differential between height of corn and weeds so that the directed spray thoroughly covers all weed foliage without contact of upper leaves or whorl of corn by spray or drift, as such contact may cause crop injury. Early cultivation (rotary hoe or other suitable equipment) will aid in achieving proper differential between height of corn and weeds.

Use 1 1/4 to 3 lbs. per acre (for band treatment, use proportionately less); add 1 pt. Surfactant WK for each 25 gals. spray mixture. Use the lower rate when weeds do not exceed 2" in height and on lighter soil types and soils low in organic matter; use the higher rate for weeds up to 5" in height and on heavier soil types and soils high in organic matter.

COTTON – East of Rocky Mountains-Directed Postemergence Application: Apply as a directed spray; adjust nozzles to minimize contact of cotton leaves with spray or drift or crop injury may result. Do not spray over top of cotton.

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When cotton is at least 15" tall and emerged annual weeds do not exceed 2" in height, apply 1 to 1½ lbs. per acre (for band treatment, use proportionately less); add 1 pt. Surfactant WK for each 25 gals. spray mixture. If needed a second application at same rate may be made one week or later after initial treatment. Alternatively after cotton is 20" tall, make a single application of 2 to 3 lbs. per acre following last cultivation; if emerged weeds are present, add Surfactant WK as directed above.

NOTE: Do not use on Pima varieties of cotton. Do not graze treated fields or feed forage from treated areas to livestock. Do not feed gin trash to livestock.

PARSNIPS — Preemergence Application: Make a single application at the rate of 1½ to 3 lbs. per acre (for band treatment, use proportionately less); use the lower rate on lighter soils (low organic matter). Apply after planting but before crop emerges. Plant seed at least ½" deep.

POTATOES — Preemergence Application: Make a single application as a broadcast spray (ground equipment or aircraft) after planting but before crop emerges. Plant seed at least 2" deep. Do not spray over top of emerged potatoes. Where aerial application is made on bedded plantings, apply parallel to rows. If beds are to be "dragged" and/or "hilled", apply after the final "dragging" or "hilling" operation. Apply before grasses are 2" tall and before broadleaf weeds are 6" tall, preferably just before or when weed seedlings emerge. If emerged weeds are present, add 1 pt. Surfactant WK for each 25 gals. spray mixture. In irrigated areas, best results are obtained when application is made to moist soil, followed within 2 weeks by 1" to 2" of sprinkler irrigation (or rainfall).

On powder dry soils, irrigate prior to herbicide application and follow with sprinkler irrigation to activate the herbicide.

EAST OF ROCKY MOUNTAINS AND PACIFIC NORTHWEST: Apply 1½ to 2½ lbs. per acre on the lighter soils (sandy loams, silt loams; 1 to 2% organic matter) and 2½ to 4 lbs. per acre on heavier soils (silts, clay loams; 2 to 5% organic matter); on soils over 5% organic matter, use 4 lbs. per acre and apply to emerged weeds (before potatoes emerge).

WISCONSIN-CENTRAL SANDS AREA: Apply 1 lb. per acre on sands and 2 lbs. per acre on loamy sands.

SORGHUM — Preemergence Application: Select one of the following herbicide treatments for application as a tank mixture. Make a single application after planting, but before crop emerges. Plant seed at least 1" deep on flat or raised seedbeds only or injury to crop may result. Do not spray over top of emerged sorghum.

Herbicide Treatment	Soil Type and Organic Matter	Use Area
LINURON 50W + propazine	Light to medium	Southwest
LINURON 50W + Ramrod*	Medium to heavy	Great Plains

*Registered trademark of Monsanto Company

LINURON 50W + propazine — BROADCAST TREATMENT (for band treatment use proportionately less).

Soil Type	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 2%) LINURON 50W + PROPАЗINE 80%	Moderate Organic Matter (2 to 4%)* LINURON 50W + PROPАЗINE 80%
Sandy Loam	0.6 + 0.4 to 1 + 0.6	1 + 0.6 to 1-1/2 + 1
Silt Loam clay loam	1 + 0.6 to 1-1/2 + 1	1 + 0.6 to 2 + 1-1/4

*Use the lower rates with minimum organic matter listed and the higher rates on maximum organic matter listed.

REPLANTING: Do not follow treated sorghum with any fall crop, nor with sugar beets, tobacco, vegetables or potatoes in rotation. Prior to replanting, thorough seedbed preparation including fall or spring plowing is recommended.

Linuron 50W + "Ramrod" — Broadcast Treatment (for band treatment use proportionately less).

Soil Type	Lbs. in 25 to 40 Gals. Water Per Acre	
	Low Organic Matter (1 to 3%)* LINURON 50W + "Ramrod" 65	Moderate Organic Matter (3 to 6%)* LINURON 50W + "Ramrod" 65
Sandy Loam	2/3 + 1 to 1-1/3 + 2	1-1/3 + 2 to 2 + 3
Silt Loam	1 + 1-1/2 to 1-2/3 + 2-1/2	1-2/3 + 2-1/2 to 2-1/2 + 4
Clay Loam	1-1/4 + 2 to 2 + 3	2 + 3 to 3 + 4-3/4

*Use the lower rates with minimum organic matter listed and the higher rates on maximum organic matter listed.