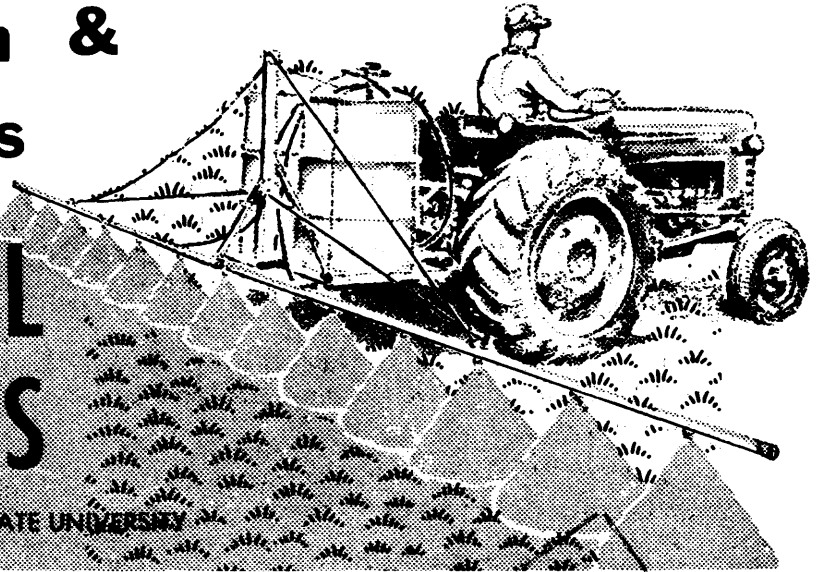


1971 SUPPLEMENT

for Corn & Soybeans



WEED CONTROL IN FIELD CROPS

COOPERATIVE EXTENSION SERVICE • MICHIGAN STATE UNIVERSITY

1971 WEED CONTROL GUIDE FOR CORN

Rates are expressed in pounds of active ingredients per acre for the area actually sprayed, unless otherwise noted. All agricultural chemicals should be applied in accordance with regulations and the Federal Insecticide, Fungicide, and Rodenticide Act as to rates, timing, and crops for which they may be used. The chemicals listed in this guide conform with these regulations.

PREPLANT APPLICATIONS - MINERAL SOILS

<u>Weed Problem</u>	<u>Chemical</u>	<u>Rate</u>	<u>Remarks and Limitations</u>
Annual Broadleaves Annual Grasses (including fall panicum, witchgrass and crabgrass)	Butylate + Atrazine (Sutan + Aatrex)	3 + 1	-Must be incorporated or mixed into top 2-3 inch of soil immediately after application. -Usually obtain season-long control. -For good control of nutsedge, increase rate of Butylate to 4 lb/A. -Injury may be evident under certain environmental conditions and with certain hybrids. -Do not use on seed fields.
Annual Broadleaves Annual Grasses (except fall panicum, witchgrass and crabgrass)	Atrazine (Aatrex)	2	-Usually obtain season-long control. -Do not plant small grain, small seeded forages, sugar beets, field beans or vegetable crops the year following corn. -Rates of 2.5 - 3 lb/A may be necessary on soils high in organic matter (greater than 6%). -Residues more likely to persist if soil conditions are cool and dry. -Incorporation is not necessary.

PREEMERGENCE APPLICATIONS - MINERAL SOILS

Annual Broadleaves Annual Grasses (including fall panicum, witchgrass and crabgrass)	Atrazine + Alachlor (Aatrex + Lasso)	1 + 2	-For fair to good control of nutsedge - increase rate of Lasso to 3 lb/A. -Can be used preplant - will be more effective preplant especially on nutsedge in these areas where soils tend to be dry.
Annual Broadleaves Annual Grasses (except fall panicum, witchgrass, and crabgrass)	Atrazine (Aatrex)	2	-Usually obtain season-long control. -Do not plant small grain, small seeded forages, sugar beets, field beans or vegetable crops the year following corn. -Rates of 2.5 - 3 lb/A may be necessary on soils high in organic matter (greater than 6%). -Residues more likely to persist if soil conditions are cool and dry. -Incorporation is not necessary.

<u>Weed Problem</u>	<u>Chemical</u>	<u>Rate</u>	<u>Remarks and Limitations</u>
Annual Broadleaves Annual Grasses (except fall panicum, witch- grass and crabgrass)	Atrazine + Propachlor (Aatrex + Ramrod)	1 + 3	-Not as effective as Aatrex + Lasso. -Ramrod will leach more readily in soil. -Note Aatrex is 80% wettable powder and Ramrod is 65%—adjust rate accordingly if use tank mix—single package is available.
Annual Broadleaves Annual Grasses (except fall panicum, witch- grass and crabgrass)	Atrazine + Linuron (Aatrex + Lorox)	1 + 1	-Corn injury can occur on coarse textured (sandy and sandy loam) soils low in organic matter (less than 2 to 2.5%). -Do not spray corn after emergence. -Plant corn at least 1 3/4 inches deep. -Note that formulation of Aatrex is 80% wettable powder and Lorox is 50%—adjust rates accordingly if using tank mix.
Annual Broadleaves Annual Grasses (except fall panicum, witch- grass and crabgrass)	Atrazine + Prometryne (Primaze)	1 + 1	-(Same as for Aatrex + Lorox above).
Pigweed Annual Grasses (includ- ing panicum, witch- grass and crabgrass)	Alachlor (Lasso)	2	-Fair to good control of nutsedge at 3 lb/A. -Follow with 2, 4-D amine postemergence for control of annual broad- leaved weeds. -Application may be made preplant. -(See remarks under "nutsedge control").

POSTEMERGENCE APPLICATIONS

<u>Weed Problem</u>	<u>Chemical</u>	<u>Rate</u>	<u>Remarks and Limitations</u>
Broadleaves only	2, 4-D amine	1/2	-Corn up to 6 to 8 inches tall. -For corn over 6 to 8 inches use drop nozzles. -Ester formulation will cause more corn injury. -Not effective on smartweed. -Hybrids vary in tolerance.
Broadleaves Annual Grasses (except fall panicum, witch- grass and crabgrass)	Atrazine + Crop Oil (Aatrex + Oil) Atrazine + Crop Oil Emulsifier Concentrate	2 + 1 gal. 2 + 1 qt.	-Emergency use. -Grasses should be less than 1½ inches tall. -Timing of application is critical to get best results. -Use a high grade non-phytotoxic crop oil or crop oil-emulsifier concentrate specified for this purpose. -Surfactants used in place of crop oil or concentrate are somewhat less effective. -Greater chance for residue since treatment is later in season.

PREEMERGENCE - ORGANIC SOILS

Annual Grasses	Propachlor (Ramrod)	5	-Must follow with a postemergence treatment for control of broad- leaved weeds.
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POSTEMERGENCE - ORGANIC SOILS

Annual Broadleaves Annual Grasses (except fall panicum, witch- grass, and crabgrass)	Atrazine + Oil (Aatrex + Oil)	3 + 1 gal.	-Emergency use. -Grasses should be less than 1 1/2 inches tall. -Timing of application is critical to get best results. -Use a high grade non-phytotoxic crop oil or crop oil-emulsifier concentrate specified for this purpose. -Surfactants used in place of crop oil or concentrate are somewhat less effective. -Greater chance for residue since treatment is later in season.
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<u>Weed Problem</u>	<u>Chemical</u>	<u>Rate</u>	<u>Remarks and Limitations</u>
Annual Broadleaves	2, 4-D amine	1/2	-Corn up to 6 to 8 inches tall. -For corn over 6 to 8 inches use drop nozzles. -Ester formulation will cause more corn injury. -Not effective on smartweed. -Hybrids vary in tolerance.
<u>PERENNIAL GRASSES</u>			
Quackgrass Annual Broadleaves Annual Grasses	Amitrole-T (Amitrol-T) (Cytrol) plus Atrazine (Aatrex)	2 plus 2	-Apply Amitrole-T in fall or spring when quackgrass is 4 to 8 inches tall. -Plow 7 to 10 days later. -If freezing weather occurs 7 to 10 days after fall application, fall plowing will not be necessary. -Plant corn and apply atrazine per preemergence instructions above. Do not plant sugar beets or vegetable crops the year following corn.
Quackgrass	Atrazine (Aatrex)	4	-When stand of quackgrass is heavy, apply in fall. Otherwise, apply in spring when quackgrass is 4 to 8 inches tall. -Wait at least 10 days to plow. -Can split application to apply 2 lb. pre-plow and 2 lb. preemergence; this will give control of annual weeds also. -When a total of 4 lb. of atrazine is used, <u>corn must be grown 2 consecutive years.</u>
Nutsedge	Butylate (Sutan) Alachlor (Lasso) Atrazine plus Oil (Aatrex)	4 3 2 plus 1 gal.	-Preplant, incorporate. Thoroughly mix to depth of 2 to 3 inches. -Control of late-season grasses. -Preemergence. Under conditions of limited rainfall, shallow incorporation (2 to 3 inches) may improve control. -Apply when nutsedge is 2 inches tall and repeat 2 weeks later. On muck soils the repeat applications should be at 1 lb/A plus 1 gal. of oil at 1 week intervals after the initial treatment.

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1971 WEED CONTROL GUIDE FOR SOYBEANS

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PREPLANT APPLICATIONS

<u>Weed Problem</u>	<u>Chemical</u>	<u>Rate</u>	<u>Remarks and Limitations</u>
Annual Broadleaves (except ragweed, mustard and smartweed) Annual Grasses	Trifluralin (Treflan)	3/4	-Incorporate or mix thoroughly into top 2 or 3 inches of soil within 4 to 8 hours after application. -On sandy and sandy loam soils low in organic matter use 1/2 lb/A. -Most effective control if application is made 10 days to 2 weeks ahead of planting and field reworked just prior to planting.

PREEMERGENCE APPLICATIONS

Annual Broadleaves Annual Grasses	Chloramben (Amiben)	3	-May be necessary to rotary hoe if rainfall does not occur within 4 to 5 days after application.
Annual Broadleaves Annual Grasses	Linuron (Lorox)	1 1/2	-Don't use on coarse textured soils, sandy and sandy loams with less than 2% organic matter.
Annual Broadleaves Annual Grasses	Preforan	4	-Plant soybeans at least 1 3/4 inches deep.
Annual Grasses	Alachlor (Lasso)	2	-Fair to good control of pigweed. -Fair to good control of nutsedge at 3 lb/A.
Annual Broadleaves Annual Grasses	Linuron + Alachlor (Lorox + Lasso)	1 + 2	-Better crop tolerance than Lorox alone at 1 1/2 lbs. on sandy and sandy loam soils low in organic matter.
Annual Broadleaves Annual Grasses	Chloramben + Linuron (Amiben + Lorox)	2 + 1	-Better crop tolerance than Lorox alone at 1 1/2 lbs. on sandy and sandy loam soils low in organic matter.

SPECIAL WEED PROBLEMS

Velvet leaf	Linuron (Lorox)	1 1/2	-Preemergence. -Only fair control.
Jimson weed	Preforan	4	-Preemergence. -Only fair control.
Nutsedge	Alachlor (Lasso)	3	-Preemergence. -Some early distortion may be observed on soybean leaves. -Shallow incorporation will improve control under conditions of limited moisture.