

US EPA ARCHIVE DOCUMENT

1-30-78

EEE BRANCH REVIEW

DATE: IN _____	OUT _____	IN _____	OUT _____	IN <u>1-25-78</u>	OUT <u>1-30-78</u>
	FISH & WILDLIFE	ENVIRONMENTAL CHEMISTRY		EFFICACY	

FILE OR (REG. NO.s) 524-285 (Roundup), 524-308 (Lasso), 524-314 (Lasso EC)

PETITION OR EXP. PERMIT NO. _____

DATE DIV. RECEIVED 12-20-77

DATE OF SUBMISSION 12-12-77

DATE SUBMISSION ACCEPTED _____

TYPE PRODUCTS(S): I, D, (H,) F, N, R, S Herbicide

DATA ACCESSION NO(S). 232519

PRODUCT MGR. NO. 25 - Bob Taylor

PRODUCT NAME(S) Roundup Herbicide, Lasso Herbicide, Lasso EC Herbicide

COMPANY NAME Monsanto

SUBMISSION PURPOSE Add Roundup-Lasso-Princep tank mix for use in corn
minimum tillage systems.

CHEMICAL & FORMULATION Isopropylamine salt of glyphosate (41.0%)

alachlor (Lasso = 43%) Lasso EC (45.1%)

simazine (Princep 4L = 41.9) (Princep 80W = 80%)

Roundup = 4#ai/gallon or 3#ae/gallon

Lasso and Lasso EC = 4#ai/gallon

Princep 4L = 4#ai/gallon

Princep 80WP = 0.8#ai/pound product

200.0 Introduction

200.1 Uses

Refer to attached use sheets.

200.2 Background Information

Roundup herbicide is presently registered for annual and perennial weed control prior to emergence of corn. Lasso and Princep are both also presently registered for preemergence weed control in corn. Monsanto Chem. Co. is now requesting registration of a Roundup-Lasso-Princep tank mix for use in corn minimum tillage systems prior to crop emergence.

201.0 Data Summary

201.1.1 Brief Description of Data Submitted

Side-by-side test plots were used to compare performance of the proposed tank mix with Lasso plus Princep and with Paraquat CL plus Lasso plus Princep. Lasso-Princep weed control was not reduced from the addition of Roundup in the data submitted. Improved control of quackgrass was noted from the addition of Roundup. Very little crop injury was noted from use of the proposed Roundup-Lasso-Princep tank mix rates. Yields were not significantly reduced as compared to Paraquat CL-Lasso-Princep tank mix yields. Compatability data submitted indicates a need for continuous agitation of the 3-way tank mix and that the components should be added to the tank in the following order: Princep followed by Lasso followed by Roundup.

201.1.2 Data Summaries

Refer to E.E.E.B. files for data summaries.

202.0 Conclusions

Efficacy, crop injury and yield data submitted will support registration of the Roundup-Lasso (or Lasso EC)-Princep 80 WP (or 4L) tank mix for use in corn minimum tillage systems as proposed on the Roundup, Lasso and Lasso EC labels.

202.1 Label Comments - to be Resolved prior to Registration

Comments a. and b. pertain to the Roundup, Lasso and Lasso EC labels.

- a. Mixing instructions must be revised under "Tank Mixtures" to include three component tank mixes.
- b. The following order of addition for the Roundup-Lasso-Princep tank mix must be indicated in the mixing instructions: Princep followed by Lasso followed by Roundup. The label must also reflect the need for continuous agitation of the 3-way tank mix throughout the mixing and application processes.
- c. On the Roundup label in the Lasso plus Princep rate table:
 1. Label must state that the proposed tank mix is not recommended for use on sand and loamy sand soils.
 2. Under "Medium" list the following soil textures to conform with the Lasso-Lasso EC label amendments: loam, silt loam, silt, sandy clay loam.
 3. Under "Fine" list the following soil textures to conform with the Lasso-Lasso EC label amendments: silty clay loam, clay loam, sandy clay, silty clay, clay.

Comments:

The Roundup, Lasso and Lasso EC label amendments will be acceptable pending resolution of those comments under 202.1 above. Should the Roundup label contain a rotational crop statement for Princep herbicide similar to the one on the Lasso and Lasso EC labels?

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E.E.E.B.

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FORMULATION:

*Isopropylamine salt of glyphosate (41.0%), atachlor (Lasso=43%) (Lasso EC=45.1%), Simazine (Princep 4L=41.9%) (Princep 80WP=80%)

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USE	Tolerance	RATE		APPLICATION	LIMITATIONS & REMARKS
		Actual lbs/acre	Formulation		
Corn	ppm			Amendment to Reg. Nos. 524-308, 524-314, 524-285.	Use of these tank mixtures for bermudagrass or Johnsongrass control in minimum tillage systems is not recommended.
M4 Roundup-Lasso-Princep tank mix to Roundup, Lasso and Lasso EC labels.				Roundup Label Directions See "Weeds Controlled" Sections of Lasso, Lasso EC and Princep labels for weeds controlled preemergence.	
				Use Roundup at the following rates: Emerged annual weeds. Perennial weeds-provides top kill and reduces competition.	
		1.5	1.5 qts./A.	Follow Roundup label recommendations for stage of growth and rates for specific perennial weeds. To obtain the desired stage of growth, it may be necessary to apply Roundup alone in the late summer or fall and follow with a label approved seedling weed control program at planting.	
		2-4	2-4 qts./A.		
*Roundup-Lasso-Princep Tank Mix - Monsanto Chem. Co., Amendments to Roundup, Lasso and Lasso EC labels.					
Roundup=(4#ai/gal. or 3#ae/gal.)					
Lasso and Lasso EC=(4#ai/gal.)					
Princep 4L=(4#ai/gal.)					
Princep 80WP=(0.8#ai/lb product)					

FORMULATION:

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USE	Tolerance ppm	RATE		APPLICATION	LIMITATIONS & REMARKS
		Actual lbs/acre	Formulation		
		2-2.5 +	2-2.5gts.Lasso +	Lasso plus Princep 80W rates	
		1.0-1.2	1.25-1.5# Princep 80W	Coarse Soils - Sandy loam only.	
		2.5-3.0 +	water/A 2.5-3gts. Lasso +	Medium Soils-Loam thru Sandy Clay Loam	
		1.2-1.6	1.5-2#	in 20-60 gal. water/A	
		2.5-3.0	Princep 80W	Fine Soils-Silty Clay Loam.	
		+	Lasso +	Thru Clay.	
		1.6-2.0	2-2.5#Princep 80W in 20-60	gal. water/A	
				Use the higher rate of Lasso	
				herbicide in the recommended	
				ranges in areas of heavy	
				grass infestation or when	
				fall panicum or crabgrass	
				will be present. Use the	
				higher rate of Princep in the	
				recommended rates on soils	

FORMULATION:

USE	Tolerance ppm	RATE		APPLICATION	LIMITATIONS & REMARKS
		Actual lbs/acre	Formulation		
		2.5-3.0	2.5-3.0 qts Lasso +	Medium Soils - (L, SIL, SI, SCL)	<p>Use the higher rate of Lasso in the recommended ranges in areas of heavy grass infestation or when fall panicum or crabgrass will be present.</p> <p>Use the higher rate of Princep in the recommended ranges on soils with greater than 3% O.M.</p> <p>Land treated ^{treated} with Princep should not be planted to any crop except corn for one year following treatment as crop injury may occur. After harvest of treated crop plow and thoroughly till the soil in the fall or spring to minimize possible injury to spring seeded rotational crops.</p>
		1.2-1.6	1.5-2.0# Princep 80W	1.2-60 gal. water/A	
		2.5-3.0	2.5-3qts Lasso +	Fine Soils (SICL, CL, SC, SIC, C)	
		1.6-2.0	2-2.5# Princep	80W in 80-60 gal. water/A	
				When using Princep 4L use equivalent rates. One qt. equals 1.25# Princep 80W.	

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