EEE BRANCH REVIEW

DATE: IN _____ OUT 5/25/76 IN _____ OUT _____ IN _____ OUT _____

FISH & WILDLIFE ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. 9538-L

PETITION OR EXP. PERMIT NO. _____

DATE DIV. RECEIVED 2/3/76

DATE OF SUBMISSION 1/21/76

DATE SUBMISSION ACCEPTED _____

TYPE PRODUCT(S): I, D, (H,) F, N, R, S Plant Growth Regulator

PRODUCT MGR. NO. R. Taylor

PRODUCT NAME(S) Flo-Mo 810 Sucker Tobacco Sucker Control Agent

COMPANY NAME Sellers Chemical Corporation

SUBMISSION PURPOSE Registration

CHEMICAL & FORMULATION Fatty Alcohols 85%

(C_6-0.4%, C_8-45.1%, C_{10}-54.5%)

(Product contains 6.04 #a.i./gal.)

(1)

ENVIRONMENTAL SAFETY

100.0 Pesticidal Use

100.1 Application methods/rates/directions: FOR USE ONLY IN NORTH CAROLINA. FLO-MO 810 SUCKER is carefully balanced combination of alcohols and emulsifier for control of sucker growth on Burley, Flue-Cured, Dark, Maryland and Cigar tobacco. The concentrate is diluted with water and applied as a coarse spray. The emulsion must contact the sucker to be effective. FLO-MO 810 SUCKER can be used alone or followed by a systemic sucker control agent in a dual treatment program.

TIME OF APPLICATION: Top tobacco plants at the late button to early flower stage and remove any suckers which have grown over one inch. The emulsion must contact the suckers and it is necessary to straighten any leaning plants so the emulsion can flow evenly down the stalk.

Tobacco plants should be sprayed within two days after topping and removal of suckers. Application can be made anytime during the day until the leaves begin to close in the evening. Best results are obtained when plants are sprayed in the morning after the dew has dried or in the afternoon when plants have recovered from wilt. Some injury to tender leaves at top of the plant may result from an application under bright sunlight at temperature above 90°F. Do not apply if winds are high enough to turn top leaves as injury may result to undersides to tobacco leaves. Do not apply during rains or when plant is wet. If rainfall occurs one hour or more after application, reapplication should not be necessary.

RATE OF APPLICATION: For FLUE-CURED, BURLEY, MARYLAND AND CIGAR TOBACCO.

Power sprayer applications - apply 1 3/4 - 2.0 gallons in 50 gallons of water per acre.

Hand sprayer - use 4-5 ounces per gallon of water to treat approximately 190 plants.

METHOD OF APPLICATION: The diluted emulsion is most easily prepared by adding the required amount of SELLERS FLO-MO 810 SUCKER to your spray tank and then adding the water.

IN ORDER TO OBTAIN THE BEST RESULTS ADD WATER TO THE FLO-MO 810 SUCKER RATHER THAN FLO-MO 810 SUCKER TO THE WATER.

If you use a hand sprayer; a coarse spray is recommended, directed downward at the top of the stalk from 6-8 inches above the top of the leaves. Very little pressure is required; not more than 20 P.S.I.

POWER EQUIPMENT: Use 3 nozzles per row (T G-3 full cone tips or equivalent is satisfactory). Replacing the center T G-3 full cone nozzle with a T G-5 full cone nozzle will provide more spray solution down the stalk is also recommended. The center nozzle should be directed over the row and the side nozzle should be 9 inches on either side directed at or slightly above the top of the stalk. The diluted FLO-MO 810 SUCKER should be applied to the tobacco as a coarse spray from a height of 12-16 inches above the top of the tobacco plant. It is recommended that boom pressure be kept at 20 lbs. and should not exceed 25 lbs. At 20 lbs. pressure with the recommended spray tips and a tractor speed of 2½ - 3 miles per hour approximately 50 gallons of diluted emulsion will be applied per acre.

NUMBER OF APPLICATIONS: In many cases a single application of FLO-MO 810 SUCKER is satisfactory to control primary and secondary suckers. A second treatment 5-7 days after the initial treatment may be desirable if secondary sucker growth appears vigorous. Some growers favor a dual treatment using FLO-MO 810 SUCKER first (at late button stage) followed 1 to 2 weeks later with a systemic sucker control agent (maleic hydrazide) used in accordance with the manufacturers instructions.

CAUTION: If allowed to stand for extended periods of time, the diluted emulsion may separate. Always remember to mix well immediately prior to use.

In order to minimize the possibility of injury to tobacco plants, do not mix (FLO-MO 810 SUCKER) with other chemicals or apply to plants which have recently been treated with chemicals. Be sure your spray equipment is clean prior to using. In Burley tobacco, during prolonged periods of high heat and humidity or under conditions which may favor spread of hollow stalk or stem rot diseases, delay applications of FLO-MO 810 SUCKER CONTROL until these conditions pass. DO NOT contaminate waters by cleaning equipment or disposal of wastes.

CONTAINER DISPOSAL: DO NOT reuse empty containers. Wash thoroughly with water and crush containers and discard in a safe place.

100.2 Precautions

W A R N I N G

KEEP OUT OF REACH OF CHILDREN
CAUSES EYE AND SKIN IRRITATION

Do not get in eyes, on skin, or on clothing. Harmful if swallowed. In case of eye contact flush thoroughly with water for at least 15 minutes and call a physician. Wear safety glasses and rubber gloves. Avoid inhalation of spray mist.

101.0 Chemical and Physical Properties

101.1 Fatty alcohols (C_6-0.4%, C_8-45.1%, C_{10}-54.5%)

101.2 Fatty alcohols

103.0 Toxicological Properties

103.1 Acute Toxicity

Organism	Study	Results (95% confidence limits)	Test Material
1/ Rat	Acute Oral	LD_{50} = 18,240 (14,250 - 23,340) mg/kg	ALFOL 8 Alcohol*
2/ Rat	Acute Oral	LD_{50} = >26,410 mg/kg	ALFOL 10 Alcohol**
3/ Rabbits	Acute Dermal	LD_{50} = 2000 mg/kg	ALFOL 8 Alcohol*
4/ Rabbits	Acute Dermal	LD_{50} = between 2000 and 4000	ALFOL 10 Alcohol **
5/ Rabbits	Eye Irritation	Eye Irritant	ALFOL 8 Alcohol*
6/ Rabbits	Eye Irritation	Eye Irritant	ALFOL 10 Alcohol**
7/ Rabbits	Skin Irritation	A Primary Irritant	ALFOL 8 Alcohol*
8/ Rabbits	Skin Irritation	A Primary Irritant	ALFOL 10 Alcohol**

Avian and aquatic studies were submitted previously for an EUP for FLO MO 810; see R. Felthousen's review of 4/21/76; also see REFERENCES at back of this review.

*It was not indicated but it appears this is n-octanol alcohol.
**It was not indicated but it appears this is 1-decanol alcohol.

4

104.0 Hazard Assessment

104.1 Discussion

The proposed use provides for maximum expected residues on tobacco plants of approx. 1500 ppm (based upon a rate of 2 gals. (12 #a.i.)/acre). The target is tobacco; therefore, directed sprays are used minimizing the chances of drift. One (sometimes two) application(s) is generally made per growing season. Also, an application may be followed 1-2 weeks later with maleic hydrazide.

104.1.1 Adequacy of toxicity data:

The data submitted is adequate.

104.1.2 Additional data required:

An acute 48-hour LC_{50} for an aquatic invertebrate is required.

104.1.3 Likelihood of exposure to non-target organisms:

Minimal exposure and/or hazards exist for non-target organisms due to the nature of the application and the minimal toxicity of the pesticide. Directed sprays reduce drift and the majority of the pesticide will reach the tobacco plant which is not prime food for wildlife. Further, aquatic contamination is unlikely unless heavy rains occur immediately after application. This hazard cannot be eliminated, however.

105.0 Conclusions

The environmental safety staff cannot concur with the proposed registration. As per the new Sec. 3 Regulations and the proposed Guidelines, the following study is required: an acute 48-hour LC_{50} for an aquatic invertebrate (Daphnia sp., preferably).

NORMAN J. COOK M.C.
Environmental Safety Section
Efficacy & Ecological Effects Branch
May 25, 1976