



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

SEP 6 1991

OFFICE OF  
PESTICIDES AND TOXIC  
SUBSTANCES

MEMORANDUM:

SUBJECT: ID: AZ-910012. Pendimethalin [PROWL®]; Section 24(c) on cotton in Arizona; for layby use. [CB: #8383] [DP BARCODE: D167431].

FROM: William L. Anthony, Chemist  
Special Review, Section II  
Chemical Branch II - Reregistration Support  
Health Effects Division [H7509C]

*William L. Anthony*

THRU: Francis B. Suhre, Section Head  
Special Review, Section II  
Chemical Branch II-Reregistration Support  
Health Effects Division [H7509C]

*Francis B. Suhre*

TO: Wesley Allen, PM #25  
Insecticide/Herbicide Branch  
Registration Division [H7505C]

The American Cyanamid Co., Agricultural Research Division, Princeton, NJ requests a 24(c) registration for post-emergence use of PROWL® [EPA Reg. #241-243] on cotton in the State of Arizona only. PROWL®, a liquid herbicide, contains 4 lbs of the active ingredient (ai) pendimethalin [N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine] per gallon.

In a related action, American Cyanamid previously requested a supplemental label for layby use of PROWL® on cotton, in Arizona and Southern California. CBRS recommended against the proposed amended registration since no additional data were provided and the available data indicated that over tolerance residues of pendimethalin could result from the addition of a post-directed layby use on cotton to the existing label, [Memo: K. Dockter, #241-243, 7/3/89].

Note to PM: The registrant has recently submitted residue data to support the proposed amendment. These data are currently under review in CBRS.



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Pendimethalin Registration Standard (Guidance Package) was issued April, 1985. The Residue Chemistry Chapter for pendimethalin was completed July, 1984. An update was issued in March, 1990.

#### REGISTERED USE

PROWL® is registered for use, pre-plant, on cotton. Apply with ground or aircraft immediately before planting or up to 60 days prior to planting. A maximum of 1.5 lbs ai/acre (for heavy clay soils) per season may be applied.

Restrictions: (1) Do not apply PROWL® as a post-emergence spray in cotton; (2) Do not feed forage or graze livestock in treated cotton fields; (3) Do not use PROWL® on peat or muck soils.

#### TOLERANCES

There is a tolerance for residues of pendimethalin and its metabolite, 4-[(1-ethylpropyl)amino]-2-methyl-3,5-dinitrobenzyl alcohol in/on cottonseed at 0.1 ppm, [40 CFR 180.361(a)]. Numerous other tolerances exist for residues of pendimethalin and its metabolites ranging from 0.05 ppm for rice grain to 0.25 ppm for peanut hulls.

#### PROPOSED USE

For layby use in cotton: PROWL® may be applied following the last normal cultivation (layby) at the rate of 1.0 to 3.0 pt (0.5 to 1.5 lb ai)/acre as a directed spray. Apply the herbicide directly to the soil between rows using protective shields to avoid contact with cotton foliage and stems. The amount of PROWL® to be applied depends on the soil texture.

Restrictions: (1) Do not apply as a broadcast spray over the top of cotton; (2) Do not feed forage or graze livestock in treated cotton fields; (3) Allow for a 60 day PHI between last PROWL® application and cotton harvest.

#### RESIDUE

No residue data pertaining to post-emergence directed "layby" application to cotton were submitted with this 24(c) request.

Residue data were recently submitted by American Cyanamide to support an amendment to the current Section 3 registration of PROWL®. The amended label would permit post-emergence (layby) application to cotton in Arizona and Southern California in a manner identical to that proposed by this 24(c) request [AZ-910012].

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CONCLUSION and RECOMMENDATION

CBRS recommends against this Section 24(c) label because: no residue data were provided with this 24(c) request; and the registrant (American Cyanamide) has submitted an amendment to their Section 3 label for PROWL®4E (EPA Reg. #241-243) which would cover the proposed 24(c) use.

Data submitted to support the Amended Section 3 label are currently under review by CBRS (Personal communication with A. Rathman).

CC: Reviewer;RF;24(c) File;SF[Pendimethalin,PROWL®];PIB/FOD  
(C.Furlow), Circulation.

RDI: F.B. Suhre,9/4/91;E.Zager,9/5/91.

H7509C: WLA;wla;Cry.S.,4th fl;X308-8526;9/6/91.