

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

November 23, 2010

Mr. Rafael Herrera Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268

Mr. Herrera:

RE: YOUR ADMINISTRATIVE LETTER DATED JULY 31, 2009; EPA REG. NO. 62719-603; PINDAR (AI: PENOXSULAM); SUPPLEMENTAL LABEL REQUEST FOR NON-BEARING TREES, CONIFERS, EUCALYPTUS, AND NON-CROPLAND

Your supplemental label request is approved with the following changes to the submitted label:

- 1. Add the signal word and child hazard warning to front page of the supplemental label per 40CFR156.60 (a).
- 2. Change the first paragraph on page 1 of label under the EPA Reg. No. to "Preemergence and Postemergence Control of Annual Broadleaf Weeds in Non-Bearing Trees Listed On This Label¹, Conifers, Eucalyptus, and Non-Cropland".
- 3. On page 1, under "Directions for Use", after first paragraph, change "Non-Bearing Trees, etc" to "Non-Bearing Fruit Trees¹, Cacao and Coffee Trees, Conifers and Eucalyptus" Change the reference 1 comments to "Only avaocado cacao, citrus, coffee, guava, mango, olive, pomegranate, (list the pome and stone fruit uses you want to register using the crops listed under 40CFR180.41 (c)(11) and (12) as a guide) trees which will not bear crop within one year after treatment with PindarTM." For shorter time frame for non-bearing food trees, submit data and/or valid argument to support your request.

Directly under "Directions for Use", first sentence change "...General information..." to "...product information...", or remove the word "General" entirely, and remove "General" before "...Use Precautions and Restrictions..." Also remove the word "General" on page 2, second full paragraph before "Use Precautions and Restrictions, etc."

4. On page 1, under "Directions for Use", remove "For best weed control, apply Pindar during the winter dormant period following final harvest up to March 15. If needed, a sequential application of Pindar at 1 fl oz per acre, applied with an appropriate postemergence tank mix partner, can be applied in the spring up to 60 days prior to harvest." These sentences infer food uses which are not included on this supplemental label. Also, there are no tolerances established for the crops listed. The following sentences may be used if the Registrant concurs – " "For best weed control, apply Pindar during the winter dormant period up to March 15. If needed, a sequential application of Pindar at 1 fl oz per acre, applied with an appropriate postemergence tank mix partner, can be applied at least 2 – 3 months after the first application."

In the second paragraph under "Directions for Use", change the second sentence to "Pindar may be applied only in non-bearing avocado, cacao, citrus, coffee, guava, mango, olive, pomegranate, (list pome fruits), and (list stone fruits) tree orchards, which will not bear a crop within one year after treatment." Change fourth sentence to "Apply only as a directed spray to the orchard floor avoiding contact with listed non-bearing fruit, cacao, and coffee tree foliage."

Add the restrictions to this section that states "Do not graze or harvest livestock forage from treated orchards", "Apply only by ground application", and "Do not apply more than 3 fl oz of Pindar per acre per year."

- 5. In the top paragraph of page 2, add "...listed on the label." after both "...non-bearing tree crops"
- 6. On page 5, under reference #1 for the "Non-Cropland¹", change "...fencerows..." to "...fencerows not adjacent to food/feed crop fields...".
- 7. Under "Non-Bearing Trees¹, Conifers and Eucalytus" use directions and each "Specific Use Precautions and Restrictions" add the restriction "Do not apply within 200 ft of non-target plants that are susceptible to the phytotoxicity of Pindar."

Submit one copy of the revised label with the above comments before shipping product with this label.

For assistance with this matter, please contact Phil Errico at 703-305-6663/errico.philip@epa.gov.

Regards,

Kathryn V. Montague, PM 23

Million VVI

Herbicide Branch/Registration Division 7505P

ACCEPTED
with COMMENTS
In EPA Letter Dated

NOV 23 2010

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Supplemental Labeling

Under the Federal Insecticide,
Fundicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No. 19-602

TM DOW AGROSCIENCES 627/9-602

Dow AgroSciences LLC

9330 Zionsville Road

Indianapolis, IN 46268-1054 USA

Pindar™

EPA Reg. No. 62719-603

Preemergence and Postemergence Control of Annual Broadleaf Weeds in Non-Bearing Trees, Conifers, Eucalyptus, and Non-Cropland

ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Pindar™ herbicide before applying. Carefully follow all
 precautionary statements and applicable use directions.
- Except as described in this supplemental labeling, use of Pindar is subject to all use precautions and limitations imposed by the label affixed to the product container.

Directions for Use

Refer to product label for General Information, General Use Precautions and Restrictions, and all other requirements not covered under this supplemental label.

Non-Bearing Trees¹, Conifers and Eucalyptus

¹Including avocado, cacao, citrus, coffee, guava, mango, olive, pomegranate, pome fruit, stone fruit

Pindar provides postemergence burndown and preemergence residual weed control of the weeds listed on the label affixed to the product container. For short-term (2 to 3 months) residual weed control, apply Pindar at 1 floz per acre in combination with glyphosate, glufosinate or paraquat. Broader spectrum weed control can be achieved by using appropriate tank mix partners such as oxyfluorfen (GoalTender® herbicide or Goal® 2XL herbicide), isoxaben (Gallery® specialty herbicide) (non-bearing tree nuts), pendimethalin (Prowl H20), oryzalin (Surflan), or flumioxazin (Chateau) for the best preemergence control of susceptible weeds. For longer term (4 to 6 months) residual weed control, apply Pindar at 2 fl oz per acre in combination with glyphosate, glufosinate or paraquat. Broader spectrum weed control can be achieved by using appropriate tank mix partners such as oxyfluorfen (GoalTender or Goal 2XL), isoxaben (Gallery) (non-bearing tree nuts), pendimethalin (Prowl H20), oryzalin (Surflan), or flumioxazin (Chateau) for the best preemergence control of susceptible weeds. For best weed control, apply Pindar during the winter dormant period following final harvest up to March 15. If needed, a sequential application of Pindar at 1 fl oz per acre, applied with an appropriate postemergence tank mix partner, can be applied in the spring up to 60 days prior to harvest. When tank mixing Pindar with other registered products, read and carefully follow all applicable use directions, precautions, and limitations on the respective product labels.

Pindar is effective as a preemergence and/or early postemergence herbicide when used alone or in tank mix combinations for the control of weeds listed on the label affixed to the product container in non-bearing tree crop plantings. Pindar may be applied only in non-bearing tree orchards. Do not apply Pindar to potted trees. Apply only as a directed spray to the orchard floor avoiding contact with non-bearing tree foliage. Do not apply to non-bearing tree crops established less than 9 months.

An approved adjuvant must be tank mixed with Pindar for control of existing susceptible weeds at application. See Mixing Instructions on the label affixed to the product container. For broad spectrum postemergence control of grass and broadleaf weeds, a tank mix of Pindar with glyphosate, glufosinate, paraquat or other approved postemergence herbicides can be used. Read and follow all label directions

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and restrictions. For residual grass control in non-bearing tree crops, a tank mixture of Pindar with oryzalin, pendimethalin or other approved preemergence products can be used. Contact herbicides such as glyphosate, glufosinate or paraquat may also be added to the tank mixture. Check individual product labels to determine label directions and use rates for non-bearing tree crops. Read and follow all label directions and restrictions.

General Use Precautions and Restrictions for Conifer Seedbeds, Transplants, and Container Stock:

- Not for conifer release in forest management programs or for forest regeneration applications.
- Do not apply Pindar in an enclosed greenhouse structure as injury to plant foliage may result.
- Apply Pindar only to healthy conifer stock. Do not apply Pindar to conifers that are under stress from
 excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding, previously applied
 pesticides, soil insects, or winter injury, as severe injury may result.
- Do not graze or harvest livestock forage from treated areas.

Conifer Seedbeds: Pindar provides both postemergence and residual preemergence control of many broadleaf weeds. Seeded conifers are tolerant to preemergence and postemergence applications of Pindar. For weed control during the establishment of conifer seedlings, Pindar can be applied after seedling of conifers, but prior to emergence. For weed control in emerged conifers, Pindar may be applied over the top, but application should be delayed a minimum of 5 weeks after seedling emergence. If application is made during cool, cloudy weather, make certain that seedlings have hardened off prior to spraying.

Weed Control	Rate (fl oz/acre)	Specific Use Directions
preemergence	1 – 2	Application after planting, but prior to emergence of conifer seedlings: Where broadleaf weeds are present, apply 1 to 2 fl oz of Pindar per acre. In known areas of high weed competition, apply 2 fl oz of Pindar per acre. Broadcast to beds and irrigate with 1/2 to 3/4 inch of sprinkler irrigation before weed emergence. Pindar is most effective on susceptible annual broadleaf weeds when applied preemergence.
postemergence		Application after emergence of conifer seedlings: Application should be made to broadleaf seedling weeds less than 3 to 4 leaf stage. Depending upon subsequent weed flushes, multiple applications may be necessary to achieve season-long weed control.

Specific Use Precautions and Restrictions:

- Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days.
- Chemigation: Do not apply this product through any irrigation system.
- Occasionally spotting, crinkling, or flecking may appear on leaves of conifers. Leaves that receive
 direct spray or drift may be injured, but typically outgrow this condition rapidly and develop normally.
- Do not apply more than 4 fl oz of Pindar per acre per year.

Conifer Seedbed Species: When applied as directed, the conifer species listed on this label have shown tolerance to Pindar. It is impossible, however, to evaluate this product on all varieties, biotypes and cultivars of listed species under all possible growing conditions. Until familiar with results under local growing conditions, the user should exercise reasonable judgment and caution with this product. Limit application of this product to a few plants in a small area to determine plant tolerance and extent of injury if such occurs, prior to initiating large-scale applications.

Common Name	Scientific Name
douglas fir	Pseudotsuga menziesii
fir	
fraser	Abies fraseri
grand	Abies grandis
noble	Abies procera

hemlock	
eastern	Tsuga canadensis
pine	
Austrian	Pinus nigra
eastern white	Pinus strobus
Himalayan	Pinus wallichiana
jack	Pinus banksiana
loblolly	Pinus taeda
lodgepole	Pinus contorta
longleaf	Pinus palustris
Monterey	Pinus radiata
mugo	Pinus mugo
Ponderosa	Pinus ponderosa
Scotch	Pinus sylvestris
shortleaf	Pinus echinata
slash	Pinus elliottii
Virginia	Pinus virginiana

Conifer Transplants and Container Stock (Includes 2-0 Seedling and Christmas Tree Plantings): Many container-grown conifers and conifer transplants are tolerant to preemergence and postemergence applications of Pindar. Applied postemergence, Pindar provides control of emerged weeds and preemergence residual control of many broadleaf weeds and grasses.

Weed Control	Rate (fl oz/acre)	Specific Use Directions
preemergence postemergence	1-2	Transplanted and Container Grown Conifers: For best results, make preemergence applications immediately after transplanting seedlings or to weed-free container stock. Postemergence applications should be made to weeds less than 3 to 4 leaf stage. Two applications may be necessary in fall-transplanted conifer fields for season-long weed control. The addition of a nonionic surfactant (0.25% v/v) labeled for application to growing crops enhances the activity of Pindar on emerged weeds.

Specific Use Precautions and Restrictions:

- Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 6 days.
- Do not make over the top applications during periods of active conifer growth. Apply only before bud break or after new terminal growth has hardened off.
- Do not apply more than 2 fl oz of Pindar per acre in a single application or more than 4 fl oz per acre per year.

Conifer Species: In addition to those species listed in the Conifer Seedbed section, the following species have been shown to be tolerant to Pindar.

Common Name	Scientific Name
arborvitae	Thuja occidentalis
	Thuja orientalis
juniper	Juniperus chinensis Juniperus horizontalis Juniperus procumbens Juniperus sabina
	Juniperus scopulorum
red cedar	Juniperus virginiana
western hemlock	Tsuga heterophylla
yew	Taxus species

Eucalyptus: Apply Pindar for preemergence and postemergence control of listed broadleaf weeds in established eucalyptus plantings.

Weed Control	Rate (fl oz/acre)	Specific Use Directions
preemergence postemergence	1-2	Directed Spray: Pindar may be applied as a single or split application. Apply as a directed spray to soil at the base of eucalyptus trees. Use a higher rate in the rate range for extended preemergence weed control or for postemergence control of weeds up to the 4 leaf stage. The addition of a surfactant is required for postemergence activity of Pindar on emerged weeds. See Mixing Directions listed on the label affixed to the product container. Over the Top Application: In new plantings, apply Pindar just before or immediately after transplanting eucalyptus seedlings that are in a dormant condition (i.e., leaves may be present, but terminal growth has hardened off and terminal buds have formed). In established plantings, Pindar may be applied as an over the top spray only when plants are in a dormant condition.

Specific Use Precautions and Restrictions:

- At transplant, apply Pindar only to healthy "dormant" eucalyptus stock. In established plantings, spray shields are required to prevent exposure of foliage and bark of small and/or actively growing plants to Pindar.
- To avoid phytotoxicity, make over the top applications only to eucalyptus trees in a dormant condition.
 Do not make over the top applications after bud break and resumption of active growth or severe crop injury may occur.
- Do not apply more than 2 fl oz of Pindar per acre in a single application or more than 4 fl oz per acre per year.

Non-Cropland¹

¹Including non-food producing, non-cultivated agricultural or non-agricultural areas such as highway and utility rights-of-way, industrial sites, tank farms, storage areas, airports, fencerows and farmsteads

Weed Control	Rate (fl oz/acre)	Specific Use Directions
preemergence	2-4	Use a higher rate in the rate range for longer residual control.
postemergence		Use a lower rate in the rate range plus an approved adjuvant for control of susceptible broadleaf weeds in the early postemergence stage less than 4 leaf stage. Use a higher rate in the rate range plus an adjuvant for weeds up to 6 leaf stage. Application to weeds beyond the 6 leaf stage may result in partial control. For existing weeds not controlled by Pindar, a best practice is to tank mix Pindar with an approved postemergence herbicide for complete burndown.

Specific Use Precautions and Restrictions:

- Refer to Mixing Directions section on the label affixed to the product container for tank mixing precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.
- Preemergence: For broader spectrum residual preemergence weed control, Pindar may be applied in tank mix combination with diuron, simazine or other products labeled for this use.

- Postemergence: For additional postemergence control of non-susceptible grass and broadleaf weeds, Pindar may be applied in tank mix combination with glyphosate, glufosinate or paraquat.
- Do not feed or allow animals to graze on any areas treated with Pindar.
- Do not apply more than 4 fl oz of Pindar per acre in a single application.

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