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24(c) Registration of Nortron for Postemergence use on sugar beets as tank mixture with Betanex or with Betanex and Betanal

File

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The State of North Dakota has requested a Special Local Needs Registration for the herbicide Nortron EC (an emulsifiable concentrate containing 1.5 lb a.i./gal 2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl methane-sulfonate, aka ethofumesate) to be used on sugar beets as a postemergence spray in tank mixes with either the herbicide Betanex 1.3 EC (an emulsifiable concentrate containing 16% ethyl-m-hydroxycarbanilate carbanilate, aka desmedipham) or with Betanex and Betanal 1.3 EC (an emulsifiable concentrate containing 15.9% methyl m-hydroxy-carbanilate m-methylcarbanilate, aka phenmedipham.)

Nortron is federally registered for preemergent use on sugar beets at rates up to 3.75 lb a.i./A for broadcast application; rates for band application are proportionately lower. Betanex and Betanal are registered for post-emergent use at rates up to 1.25 and 1.5 lb a.i./A, respectively. A 1:1 tank mix of Betanex and Betanal (up to 0.66 lb a.i./A each) is also registered. A PHI of 90 days is imposed on these post emergent uses.

Tolerances are established for residues of 2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl methanesulfonate (ethofumesate) and its metabolites 2-hydroxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl methanesulfonate and 2,3-dihydro-3,3-dimethyl-2-oxo-5-benzofuranyl methanesulfonate (both calculated as parent) on sugar beet roots at 0.1 ppm and on sugar beet tops at 1.0 ppm (40 CFR § 180.345). A food additive tolerance is established for molasses at 0.5 ppm (21 CFR § 561.235). A tolerance of 0.1 ppm is established for residues of phenmedipham on sugar beet tops and roots (40 CFR § 180.278) and a tolerance of 0.2 ppm is established for residues of desmedipham on sugar beet roots and tops (40 CFR § 180.553). Tolerances for ethofumesate and its metabolites are established in meat, fat and meat by-products of cattle, goats, hogs, horses, and sheep at 0.05 ppm.

The use proposed for this 24(c) registration is as follows:

1.) Tank mix with Betanex alone. For broadcast application use 1.13-1.5 lb a.i./A ethofumesate and 0.73-0.975 lb a.i./A desmedipham in 20-30 gal water per acre. For band applications, rates are somewhat lower. Only one application may be made, and a PHI of ninety days is imposed.

2.) Tank mix with Betanex and Betanal. For broadcast applications use 1.13-1.5 lb a.i./A ethofumesate plus 0.37-0.49 lb a.i./A of both desmedipham and phenmedipham in 20-30 gal water per acre. For band applications, rates are somewhat lower. Only one application may be made, and a PHI of 90 days is imposed.

Residue data for the preemergent use of ethofumesate were reviewed in PP#6F1735 (D. Reed, 7/23/76). Residue levels for both roots and tops were considerably lower than the tolerance levels of 0.1 and 1.0 ppm, respectively, and processing studies indicated the only processed commodity requiring a food additive tolerance to be molasses, with a 6x concentration factor.

Residue data submitted in PP#0F0889 (D. Duffy, 1/8/80), indicate that "real" residues of phenmedipham are not likely to occur in sugar beets roots, tops or processed products from the maximum registered dose level.

Residues data in PP#4F1459 (R. J. Hummel, 10/10/74) indicate that only trace residues of desmedipham are expected to occur in sugar beet-roots, tops or by-products from the maximum registered dose level, and that no detectable residues of either desmedipham or phenmedipham (<0.02 ppm "net") are expected to occur from the presently registered tank mix.

Data are submitted with this 24(c) registration from 6 studies - 3 with ethofumesate and phenmedipham, one with ethofumesate and desmedipham and two with ethofumesate, phenmedipham and desmedipham. Application rates were up to 1.5x the proposed rate. Maximum residues levels found in any of this studies were 0.27 ppm ethofumesate and metabolites (reported as parent) in sugar beet tops, 0.05 ppm ethofumesate and metabolites (reported as parent) in sugar beet roots, 0.02 ppm phenmedipham in tops or roots and <0.02 ppm desmedipham in either tops or roots.

Control values were a maximum of 0.05 ppm ethofumesate and 0.05 ppm phenmedipham.

Conclusions

1a. Residues of ethofumesate and its metabolites are not likely to exceed the established tolerances in sugar beet roots or tops from this post-emergent use.

1b. Residues of desmedipham are not expected to exceed the established tolerances in sugar beet roots and tops.

1c. Residues of phenmedipham are not expected to exceed the established tolerances in sugar beet roots and tops.

Recommendations

We have no objection to this 24(c) registration of Nortron in North Dakota. However, the two labels registered for ND clearly state "for distribution and use only within Michigan, Minnesota and North Dakota." Until such time as Michigan and Minnesota request identical 24(c) registrations, the current label is inappropriate, and should restrict use to North Dakota only. Should MI and MN register identical uses, we would have no objection to the inclusion of those states on the label.

cc: Reading file
Circu
Reviewer :
Nortron 18 SF
Nortron 18
TOX ---
PP# No. 6F1735

TS-769:RCB:Reviewer:L.Bradley:LDT:x77324:CM#2:RM:810:Date:7/8/80
RDI:Section Head:RJH:Date:7/9/80:RDS:Date:7/9/80