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IRB BRANCH REVIEW - TSS

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IN 11/7/89 CUT 12/14/89

EFFICACY

FILE OR REG. NO. 56228-10

PETITION OR EXP. PERMIT NO. _____

DATE DIV. RECEIVED 10/11/89

DATE OF SUBMISSION 10/6/89

DATE SUBMISSION ACCEPTED 11/7/89

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

DATA ACCESSION NO(S) 412672-07

PRODUCT MGR. NO. 16

PRODUCT NAME(S) COMPOUND DRC-1339 CONCENTRATE

COMPANY NAME U..S. Department of Agriculture

SUBMISSION PURPOSE label amendments

CHEMICAL & FORMULATION 98.0% Starlicide concentrate with mixing and use directions

Efficacy Review: COMPOUND DRC-1339 CONCENTRATE, 56228-10
Animal Plant and Health Inspection Service (APHIS)
U. S. Department of Agriculture (USDA)
Hyattsville, MD 20782

200.0 INTRODUCTION

200.1 Uses

A 98.0% 3-Chloro-p-toluidine hydrochloride (Starlicide) concentrate registered with labeling that bears directions for mixing and applying baits to control starlings (*Sturnus vulgaris*), brown-headed cowbirds (*Molothrus ater*), common grackles (*Quiscalus quiscula*), great-tailed grackles (*Cassidix mexicanus*), Brewer's blackbirds (*Euphagus cyanocephalus*), and red-winged blackbirds (*Agelaius phoeniceus*) in swine feedlots, poultry feedlots, and beef cattle feedlots. This product is a "RESTRICTED USE PESTICIDE" limited to use by

" . . . U. S. Department of Agriculture personnel trained in bird control or persons under their direct supervision."

200.2 Background Information

See product jacket, especially efficacy reviews of 12/31/88 and 9/14/89. Those reviews chronicle the many labeling and formulation problems that have occurred with this product historically and that USDA and EPA have been attempting to resolve in recent correspondences. Some of these letters appear to have crossed in the mail. The submission routed for review for this product was sent by USDA on 10/6/89 and was received by EPA on 10/11/89. This submission seems to be a reply to EPA's letter of 4/25/89, which was based in part on the efficacy review of 12/31/88. On 10/18/89, USDA submitted labeling claimed to have been revised in accordance with EPA's letter of 9/19/89, which was based in part on the efficacy review of 9/14/89.

As EPA's letter of 9/19/89 accepted "with comments" the label that was discussed in the efficacy review of 9/14/89, the label submitted by USDA on 10/18/89 was not routed for efficacy review. Instead, that label was stamped

"NOT REVIEWED"

In Accordance with PR Notice 82-2. Based on Draft Labeling Dated

9/19/89"

The sites and pests listed above under "Uses" reflect those claimed on the label stamped "ACCEPTED with COMMENTS" on 9/19/89. The same sites and pests were claimed on the label submitted 10/18/89. Differences between the label included with this submission and the current accepted label will be considered to be proposed amendments.

In the submission discussed in the efficacy review of 12/31/88 (and EPA's letter of 4/25/89), APHIS had requested wholesale changes to the product use directions, many of which addressed uses that were accepted on "Special Local

Needs" (under § 24[c] of FIFRA) labels issued by various states. USDA now appears to be content to put all feedlot uses on one label and to pursue a second federal registration to cover use of meat and egg baits to control ravens and certain other corvids that might injure or kill newborn livestock or Endangered Species.

In addition to new proposed labels, the current submission includes a bound booklet containing 20 or so reports pertaining to the use of Starlicide baits in feedlots. In its letter of 4/25/89, EPA had requested that USDA

" . . . submit any available reports and tables of results of experimental and operational use of these baits under current section 24(c) registrations."

In this submission, USDA provides reports that pertain primarily to feedlot and poultry farm uses.

201.0 DATA SUMMARY

The efficacy reports were labeled with numbers which reflect each study's position in the Denver Wildlife Research Center's internal numbering scheme for "Bird Damage Reports". The studies submitted are described and briefly summarized below.

Number Citation

- 14 Anonymous (1979) 1979 winter feedlot control of starlings. Unpubl. report, VA Dept. Ag., Richmond, 5 pp.

This paper briefly summarizes starling control efforts at 58 feedlots in Shenandoah Valley and southwest VA. Bait concentration and rates were not indicated. Carriers were not indicated. Prebaiting was employed sometimes. Initial bird numbers were reported to have ranged from 100 to 7,500. Control estimates ranged from 5-90%.

- 45 Besser, J.F. and Bray, O.E. (1979) Baiting starlings with Starlicide at livestock feeding areas. DWRC Bird Damage Report No. 45., 16 pp.

This paper describes starlicide trials at hog, cattle, and poultry feeding areas in Kentucky. Prebaiting was used at the sites with the largest numbers of birds. An 85% reduction was estimated for one site. At another, the estimated kill was more than three times the largest number of starlings ever estimated to have been at the lot at one time. 12 radio-equipped birds were followed until death or disappearance.

- 88 Glahn, J.F. and Steffen, D.E. (1978) A preliminary evaluation of Starlicide for reducing starling damage at dairy feedlots in Tennessee. DWRC Bird Damage Report No. 88. 15 pp.

Starlicide baits were applied, after prebaiting, in pans or V-shaped troughs. In the first part of the study (February, 1978), one dairy feedlot was treated with toxic bait and the other only with prebait. Starling activity was reduced 91% (counts of individually marked birds before and after baiting) to 97% (birds per minute at feed troughs pre- and posttreatment). Using the latter measure, a 93% reduction was estimated when the sham treated feedlot from the first part of the study was treated with toxic bait in March of 1978. Due to high variability in bird counts per minute in the pretreatment period, this reduction was not shown to be statistically significant by the method of analysis chosen.

- 1007 Besser, J.F. and Guarino, J.L. (1962) Selectivity of two poisoned baits to starlings and red-winged blackbirds in Colorado cattle feedlots. Unpublished report. 5 pp.

Three of six pens in a cattle feedlot near Platteville, CO, were baited with TEPP-treated pellets or cracked corn diluted with untreated material at ratios of 1 part treated to 4-15 parts untreated food. Bait was applied on 1/3/62. More than 2,000 dead birds were recovered at selected locations within 3/4 miles of the feedlot. Of the 578 starlings recovered, 211 were recovered within baited pens. Of the 1,570 red-wings recovered, 1,184 were recovered within baited pens. Starlings represented 87% and 98% of the carcasses recovered from the two pens baited with pellets. Red-wings comprised 98% of all carcasses found in the pen baited with cracked corn. The only dead nontarget animal reported was a house sparrow.

- 1505 Levingston, P.E. (1967) Winter starling control with DRC-1339. Proc. 3rd Vert. Pest Conf., March 7-9, 1967, San Francisco, CA, 100-103.

Using baits made with Starlicide-treated (lard sticker) rolled milo, rolled barley, or raisins, Levingston claimed to have killed over 3,500,000 starlings in the winter of 1965-66 and over 5,000,000 starlings on the winter of 1966-1967. Grain baits were said to be 2% formulations but the lard and the contribution of the weight of the Starlicide concentrated to the total weight of the bait appear to have been neglected in computing this concentration. The raisin bait was said to have been accepted poorly. Levingston reported some suppression of blackbird numbers but no reductions in meadowlarks or house sparrows. A total of 414,000 starlings were claimed to have been killed with TEPP at one site in the winter of 1963-1964.

- 2587 Packham, C.J. (1966) Starling control with DRC-1339 at cattle feedlots in Idaho winter of 1965-1966. Unpublished report. 18 pp.

Peckham reported that 0.25% - 0.50% Starlicide baits made with cull french fries or rolled barley produced an average of 88% reduction at four cattle feedlots. On one of these lots, Starlicide was said to have succeeded where TEPP had failed. Control efforts were

attempted at several other feedlots but were aborted or incompletely monitored for various reasons. Bait acceptance was said to be enhanced by prebaiting and by snow and frozen ground (which limited starling's access to "natural" foods).

- 2702 Alcorn, J.R. (1965) Completion report on DRC-1339 starling control - Nevada. Unpublished report. 4 pp.

Starlicide baits of unspecified concentration were made using barley, poultry pellets, whole milo, or cracked corn as carriers. Results generally were reported to be good, with lard and prebaiting being said to enhance bait acceptance and warm weather without snow to inhibit acceptance.

- 2715 Besser, J.F., and DeGrazio, J.W. (1965) Summary of starling control trials conducted by Division of Wildlife Services with DRC-1339 baits at cattle feedlots, winter of 1964-1965. Unpublished report, Denver Wildlife Research Center, 16 pp.

This report summarizes results of trials conducted at 58 sites in 7 states (AL, CA, CO, ID, NV, OR, and UT). A total of 15,366 lbs of bait were applied to about 1,622 acres of feedlots. The authors estimate that, in all trials combined, about 741,000 starlings were killed, nearly 78% of the estimated exposed starling population of 951,700. Baits were made using the following carriers: diced french fries, raisins, rolled barley, cracked corn, whole and rolled milo, meat-scrap pellets, and poultry pellets.

Starlicide kills of the following nontarget species were estimated: Brewer's and other blackbirds (22,285 birds taken; about 30% of the exposed population), cowbirds (400; 80%), house sparrows (800; 4%), pigeons (285; 4%), (black-billed) magpies (105; 54%), and meadowlarks (1; 1%). Blackbirds were taken primarily with grain and pelleted baits. French fries and raisins were said to be most selective for starlings. The authors also reported that six dead grackles and one dead cardinal were collected.

- 4245 Fitzwater, W.D. (1965) Bird-feedlot problem in Arkansas Valley, Colorado 1964-5. Unpublished Memorandum, Bureau of Sport Fisheries & Wildlife, Region 2, Albuquerque, NM, 9 pp.

Baits made with cracked corn and meat-scrap pellets were applied undiluted with untreated bait to cattle feedlots in the Arkansas Valley in Colorado. Clear estimates of efficacy were not reported. The author noted that "public reaction" to the slow-acting Starlicide was "disappointing", as the compound did not leave the impressive piles of dead birds on the treated property that were associated with the use of TEPP as an avicide. Nontarget kills were reported to include Red-winged and Brewer's blackbirds, cowbirds, and house sparrows.

- 5081 Siebe, C.C., Clark, J.P., Van Brocklin, H., and Moss, O. (1965) Control of starlings during fall and winter months. Bait preference and toxic bait trials. Unpublished Memorandum. California Department of Food and Agriculture, 2 pp.

After prebaiting, three different Starlicide baits (0.2% conc. on raisins, 2% conc. on rolled barley, and 2% conc. on cracked corn.) were applied in a feed alley, two cattle pens, and atop a "Modified Australian Crow trap." The authors claimed to have reduced starling and blackbird numbers by 90%. Raisin and barley baits were force-fed to captive starlings. One of two birds fed a single treated raisin died; the other developed symptoms but recovered. All starlings force-fed two raisins or two kernals of treated barley died.

- 5087 Clark, D.O., Merrill, H.A., Hill, W., and Wendt, L. (1965) Control of starlings during fall and winter months. Bait preference and toxic bait trials. Unpublished Memorandum. California Department of Food and Agriculture, 2 pp.

Three different cattle feedlots were treated with combinations of the following Starlicide baits: 0.2% conc. on raisins, 2% conc. on rolled barley, 2% conc. on milo, and 2% conc. on poultry pellets. Prebaiting was not mentioned in the report. Control at two sites apparently was poor. At the third site, starling and blackbird numbers were said to have been reduced to 800 from an original population of 4,500 (an 82% reduction). Bait applied to bare ground was said to have been "trampled into the mud and manure" during one of the flopped trials. Rain was said to have limited success in the other.

- 11063 Guarino, J.L. (1964) Fall and winter baiting with DRC-1339 at two cattle feedlots in the South Platte River Valley, Colorado, October 1963 through February 1964. 22 pp.

Thirteen bait applications were made in two cattle feedlots. A 1% Starlicide formulation on Layena poultry pellets was used. The percent control was not estimated. Prebaiting was not mentioned in the report. Untreated bait was applied along with Starlicide bait, however. In all but the first baiting period, TEPP-treated bait was applied in measured ratios (1:10, 1:20, or 1:50) to the amount of Starlicide-treated bait used. Guarino reasoned that the ratio of the number of birds taken by the quick-killing TEPP to that taken by the slow acting Starlicide would mimic the relative proportions of the two toxicants in the total amount of toxic bait used. Because TEPP's victims were expected to be so much easier to find, Guarino referred to the TEPP bait as a "marker" (rather than as a confounding factor in the experiment). Guarino projected that thousands of starlings and red-winged blackbirds were killed through this baiting effort.

Guarino reported that raptors and other predators (raccoons, cats) fed on killed or affected birds but did not appear to die. He also stated that a captive Cooper's hawk and a captive marsh hawk were fed, over a four-month period, 222 and 90 "DRC-1339-field-killed" starlings, respectively. These raptors were said to have survived these experiences with "no apparent ill effects".

- 11067 Besser, J.F., Royall, W.C., and DeGrazio, J.W. (1963) Baiting starlings with DRC-1339 at a cattle feedlot Overton, Nevada. Unpublished report, Bureau of Sport Fisheries and Wildlife, Wildlife Research Center. 8 pp.

The counts of starlings at a cattle feedlot were reduced by about three-fourths following a single application of a 1% Starlicide bait made with Layena poultry pellets. More blackbirds (apparently mostly Brewer's) were feeding in the feedlot than starlings, but the kill of starlings seemed to be greater. Prebaiting was not mentioned. Treated pellets were mixed at a 1:10 ratio with untreated pellets.

- 11392 Besser, J.F. (1964) Baiting starlings with DRC-1339 at a large cattle feedlot, Ogden, Utah, January 21 - February 1, 1964. Unpublished report, Bureau of Sport Fisheries and Wildlife, Wildlife Research Center, 16 pp.

The author reported 68% reduction in numbers of starlings and 99% reduction in numbers of Brewer's blackbirds following multiple treatments of a cattle feedlot with 1% Starlicide baits made either with Layena poultry pellets or rolled barley as carriers. A total of 175 lbs of toxic bait was used. The estimated total kill of starlings was 35,000 — 3.5 times the maximum number of starlings estimated in any single count prior to treatment. A conversion factor of 2.5 birds killed for each one found dead in a roost was used to calculate the total starling kill. Baits were applied in alleys between pens, in vacated pens, in bait trails, and in "snow troughs" (made by selective shoveling). Bait take was best on days when the ground remained frozen for longer periods of time. At one phase of this trial, baits made from DRC-13217 were used as a marker. This chemical, which was claimed to make birds "tower and emit distress calls", probably was 4-Aminopyridine.

Birds killed in this study were sometimes found in places where they fouled feedlot equipment including a machine used to roll barley and electric motors. Many starlings that died in roosts were found on the ground, but others were found in the trees, either in a perching position or hanging by their feet.

About 8% of all bird carcasses were scavenged. Animals feeding on these carcasses included marsh hawks, short-eared owls, house cats, and magpies.

- 12015 Besser, J.F., Royall, W.C. Jr., and DeGrazio, J.W. (1967) Baited starlings with DRC-1339 at a cattle feedlot. Journal of Wildlife Management, 31:1, 48-51.

This paper is the published version of 11067. It includes a claim, from unpublished data, that each starling eats one ounce of livestock ration per day.

- 16001 Hickman, G.L. (1967) Starling suppression with DRC-1339 at Cattle Feedlots in Idaho Winter of 1966-1967. Unpublished report, Bureau of Sport Fisheries and Wildlife, 22 pp.

This study briefly reports results of 13 bait applications conducted on cattle feedlots in Idaho during the winter of 1966-1967. Typical applications were prebaited and involved use of 0.25% Starlicide baits using cull french fries or rolled barley as baits. Baits were diluted with untreated carrier at rates from 1 part toxic: 4 parts placebo to 1 part toxic: 10 parts placebo. Two trials with rolled barley yielded estimates of 53% and 80% reduction in starling populations. Nine trials with french-fry baits yielded estimated reductions from 13% to 99%, with all but one estimate being 85% or higher and all but two being 90% or higher. For the two sites where barley and french-fry baits both were used, reduction estimates were 88% and 99%.

Scattered barley baits were said to be least selective for starlings. Most selective were scattered french-fry baits, while piled french-fry baits were implied to be intermediate in selectivity. Optimum particle sizes for french fries were said to be 1/4" square and 1/4"-1/2" long. Brewer's blackbirds, red-winged blackbirds, and crows were "nontarget" species that fed on baits and were clearly killed or debilitated. Other species seen feeding on baits included magpies and ringed-billed gulls.

- 12261 Royall, W.C., Jr., DeCino, T.J., and Besser, J.F. (1967) Reduction of a starling population at a turkey farm. Poultry Science, 46:6, 1494-1495.

A 1% Starlicide bait on Purina Layena Poultry Pellets was applied in a 20'-wide strip around the perimeter of turkey pens on a 30-acre turkey farm in Utah. The bait was diluted 1:4 with untreated pellets and whole-grain sorghum. The site was not prebaited. The authors reported that starling numbers at the site were suppressed 93% from an initial level of 1,800 birds.

Totals of 470 dead starlings and 5 dead Brewer's blackbirds were counted. Species seen scavenging poisoned birds included house cat, grey fox, great-horned owl, and red-tailed hawk.

- 12427 Stickely, A.R., Jr. (1981) Extended use of Starlicide in reducing bird damage in southeastern feedlots. In: Jackson, W.B. (ed.) Eighth Bird Control Seminar, Bowling Green State University, Bowling Green, OH, 79-89.

In this study, 1% Starlicide Layena baits were diluted with 1:1 with untreated material and applied above cattle or hog feeders at four sites (3 cattle, 1 hog) in Williamson County, TN. A second piglot was monitored but was not baited. Prebait was used at all treated sites. The index of bird activity was entries per minute into the feeding area. Obtaining this index was given "top priority" during the pretreatment phase and "secondary priority" during posttreatment, meaning that the pretreatment indices were taken more rigorously than were the posttreatment indices which "were conducted on an irregular basis". Two treatments were made at three of the baited sites. Three treatments were made at the fourth. At the three cattle sites, the numbers of birds (primarily starlings) entering the feeding area per minute declined 84%, 85%, and 97% after the first baiting and, respectively, 99%, 94%, and 100% after the second. At the baited hog facility, activity (grackles and starlings) was down 86% after the first treatment, 79% after the second, and 82% after the third. Behavioral evidence of aversion to the bait was noted at one of the cattle sites.

- 16002 Anonymous (1989) Unpublished and untitled table apparently related to use of starling baits on french fries. U.S. Department of Agriculture, Animal Damage Control, Olympia, WA. 2 pp.

This table contains one line of data pertaining to some 89 apparent uses of a starling bait on french fries from 10/14/80 to 10/11/88. Multiple treatments to certain sites are noted for some years. This information is not very useful to establishing the efficacy of the product (56228-10) or the appropriateness of its current or proposed labeling.

A copy of supplemental labeling is appended to the table. The supplemental label identifies the 24(c) registrant as the U.S. Fish and Wildlife Service and the SLN No. as WA-790002.

- 16003 Juve (1979) Unpublished and untitled table apparently related to use of Starlicide baits in Arizona. U.S. Department of Agriculture, Animal Damage Control, Phoenix, AZ. 2 pp.

This table is as useless to the current purpose as the 16002 table. It lists amounts of Starlicide used and numbers of treatments made. The table's author was gleaned from a summary by USDA, not from the table itself.

Collectively, these reports indicate that starlicide has been used for a quarter century to kill starlings and some blackbirds at cattle feedlots and certain other livestock feeding areas. The material has killed impressive

numbers of birds in some instances. None of the studies is really good enough, by itself, to be considered definitive GLP-quality research. However, the general thrust of the work is that the various baits are effective against starlings (and other species, on occasion) particularly when applied after prebaiting on days with snow cover and frozen ground.

I see no reason to require more efficacy data for the starling claims french-fry, rolled-barley, cracked-corn, poultry-pellet, rolled-milo, or raisin baits which are claimed on the newly proposed label. However, the claims made with respect to other species are not nearly as well established by the data presented. The submission includes nothing specific regarding boat-tailed grackles, great-tailed grackles, tri-colored blackbirds, and yellow-headed blackbirds, and only incidental efficacy data regarding brown-headed cowbirds and red-winged blackbirds. There are several studies which report that large numbers of Brewer's blackbirds were killed by various of the bait formulations used, but the issue of which baits are best for which species is not clearly resolved.

None of these studies was designed appropriately to index the impacts of Starlicide baits on nontarget species (excluding the aforementioned Icterids). Reports of birds seen feeding on bait but not found dead are hardly sufficient for a slow-acting toxicant such as Starlicide. The reports submitted also comment regarding which baits attract starlings most selectively, but these discussions are largely anecdotal.

The revised label submitted on 10/6/89 improves upon the recently accepted label in several important ways. The "GENERAL INFORMATION" section has been modified to indicate very clearly that the product is to be used in feedlots. The "USE RESTRICTIONS" section has been enhanced to advise prebaiting in a stronger fashion than does the accepted label and by directing the reader to the right panel of the label for additional use directions. The "FORMULATION DIRECTIONS" section has been expanded to provide specific directions for each type of bait. The percent active ingredient concentrations given for the bait formulations overstate the concentration of active ingredient in each case, however, because they fail to account for the contribution of the weight of the active ingredient and its solvent or dispersant to the total weight of the formulation. The new application directions would reduce the maximum application rates to about 1/5th of that indicated on the accepted label.

202.0 CONCLUSIONS

The proposed label appears to offer several useful improvements over the current label. Before this new labeling can be accepted, however, the following refinements are needed:

- a. Delete claims for control of boat-tailed grackles, great-tailed grackles, tri-colored blackbirds, and yellow-headed blackbirds as the efficacy studies submitted provided little or no information regarding the usefulness of the product to control these species. Claims for red-winged blackbirds, Brewer's blackbirds, common grackles, brown-headed cowbirds, and starlings may be retained. Use a hyphen in "brown-headed cowbird" and an apostrophe in "Brewer's blackbird".

- b. The active-ingredient concentrations listed for the various bait preparations may overstate the actual concentrations because the contributions of the active ingredient and the oil or retained water to the total weight of the bait were not included in computing the concentration. Assuming that most of the water leaves when the bait is dried, the errors would appear to be greatest for baits mixed with oil, especially the "1.0%" corn bait. Because this is a mix-it-yourself product, no label changes are needed in this area. If you choose to produce a ready-mixed product, you will have to total the weight of all ingredients when calculating concentrations.

William W. Jacobs
Principal Specialist: Rodenticides
Insecticide Rodenticide Branch
December 15, 1989

Table 1. Results of field trials of Starlicide in feedlots as reported by USDA.

Study	State(s)	Site(s)	Species	Conc.	Carrier	Prebait?	Bird Numbers	% Killed
14	VA	Feedlots	Starling	?	?	Sometimes	100-7500	5-90
45	KY	Feedlots [hogs, cattle, poultry]	Starling	?	Crumbles/Pellets	Yes	12000	85
88	TN	Dairy Feedlots	Grackle, Starling, Red-wing, Cowbird	?	Crumbles	Yes	50-150	?
1505	CA	Cattle Feedlots	Starling	<2%	Milo Barley Raisin	No?	?	91-97% 93%
2587	ID	Cattle Feedlots	Starling	<0.25% 0.50%	FrFries Barley	Sometimes	3000-120000	88
2702	NV	Feedlots	Starling	?	Barley Pellets Milo CrCorn	Sometimes	3000-14000	?
2715	AL CA CO ID NV OR UT	Cattle Feedlots	Starling	2% 1% 0.2% 2% 2% 0.2% ?	CrCorn PoultPel Raisins Barley Milo Potatoes MeatPel		30000 178000+ ? 579225+ 54890+ 500 109000	49 76 ? 82 69 60 75

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Study	State(s)	Site(s)	Species	Conc.	Carrier	Prebait?	Bird Numbers	% Killed
14	VA	Feedlots	Starling	?	?	Sometimes	100-7500	5-90
45	KY	Feedlots [hogs, cattle, poultry]	Starling	?	Crumbles/ Pellets	Yes	12000	85
					Crumbles/ Pellets	Yes	3000	?
					Crumbles	No	50-150	?
88	TN	Dairy Feedlots	Grackle, Starling, Red-wing, Cowbird	?	Crumbles	Yes	?	91-97% 93%
1505	CA	Cattle Feedlots	Starling	<2%	Milo Barley Raisin	No?	?	?
2587	ID	Cattle Feedlots	Starling	<0.25%- 0.50%	FrFries Barley	Sometimes	3000-120000	88
2702	NV	Feedlots	Starling	?	Barley Pellets Milo CrCorn	Sometimes	3000-14000	?
2715	AL	Cattle Feedlots	Starling	2%	CrCorn	?		
	CA			1%	PoultPel		178000+	76
	CO			0.2%	Raisins		?	?
	ID			2%	Barley		579225+	82
	NV			2%	Milo		54890+	69
	OR			0.2%	Potatoes		500	60
	UT			?	MeatPel		109000	75