HFA-305

Date of Approval Letter: SEP 21 2001

FREEDOM OF INFORMATION SUMMARY

SUPPLEMENTAL NEW ANIMAL DRUG APPLICATION

NADA 140-951

CLINACOX™

(diclazuril)

Anticoccidial Type A Medicated Article for use in Growing Turkeys

"... for the prevention of coccidiosis caused by *Eimeria adenoeides, E. gallopavonis,* and *E. meleagrimitis.*"

Sponsored by

SCHERING-PLOUGH ANIMAL HEALTH CORPORATION

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I. GENERAL INFORMATION

NADA Number: *140-95* 1

Sponsor: Schering-Plough Animal Health Corporation
1095 Morris Avenue
Union, NJ 07083

Generic Name: diclazuril

Trade Name: CLINACOX™ Anticoccidial Type A medicated article

Marketing Status: Over-the-counter

Effect of Supplement: This supplement provides for the addition of a new species, growing turkeys, to be added to the previously approved product, CLINACOX™ Type A medicated article.

11. INDICATIONS FOR USE

Growing Turkeys: For the prevention of coccidiosis caused by *Eimeria adenoeides, E. gallopavonis,* and *E. meleagrimitis.*

III. PRODUCT INFORMATION

A. Dosage Form and Amount of Active Ingredient:

CLINACOX™ is a Type A medicated article (premix) which contains 0.2% diclazuril.

B. Route of Administration and Dosage:

CLINACOX™ Anticoccidial Type A medicated article is administered to growing turkeys orally in a complete feed at 1 ppm which is fed continuously as the sole ration.

C. Mixing Directions:

One pound (1 lb) of CLINACOX™ (0.2% diclazuril) is thoroughly mixed into each ton of complete feed to provide 1 ppm of diclazuril. It is recommended that an intermediary mix containing one part CLINACOX™ and not less than nine parts appropriate feed ingredient be thoroughly mixed before incorporation into the feed.

I V . EFFECTIVENESS

A. Dose Determination (Field Isolate Battery Trials)

1. Investigators:

Larry R. McDougald, Ph.D.
Georgia Poultry Research, Inc.
Athens, GA 30607

Greg Mathis, Ph.D.
Southern Poultry Research, Inc.
Athens, GA 30607

2. Introduction:

Seventeen battery trials were conducted to evaluate the effectiveness of diclazuril in growing turkeys against single and mixed infections of three *Eimeria* species. Individual trial numbers, investigators, and species used are presented in table 4.1. Birds were reared on nonmedicated feed to 12 or 14 days of age and then challenged at 14 days of age with sporulated oocysts of sufficient number and virulence to produce clinical signs. Studies were terminated at 6 or 7 days post challenge.

Table 4.1. *Eimeria* species, trial numbers, and investigators for diclazuril trials

Eimeria Species	Study Numbers	Study Investigator
E. adenoeides	88AVI031, 88AVI032, 88AVI033, 88AVI034	McDougald
E. gallopavonis	88AVI027, 88AVI028, 88AVI029, 88AVI030	McDougald
E. meleagrimitis	88AVI019, 88AVI020, 88AVI021, 88AVI022	McDougald
Mixed *Eimeria* species	88AVI023	McDougald
Mixed *Eimeria* species	P351-014, P351-015, P351-016, P351-017	Mathis

3. Results:

Percentage incidence of mortality due to coccidiosis, weight gains and fecal scores are presented in tables 4.2 through 4.4. Diclazuril reduced or prevented mortality, improved weight gains, and improved fecal scores in turkey poults challenged with coccidia. No adverse reactions were observed.

Table 4.2. Mortality due to coccidiosis (%) of birds challenged with oocysts of *Eimeria adenoeides*, *E. gallopavonis*, or *E. meleagrimitis*, or a combination of all three species and fed diclazuril-medicated or non-medicated feed in battery cage trials.

	Diclazuril, ppm				
Species	0.0	0.5	1.0	1.5	NMNC[a]
E. adenoeides[b]	*24.4*	*0.0*	*0.0*	*0.0*	*0.0*
E. gallopavonis[b]	*25.0*	*0.0*	*0.0*	*0.0*	*0.0*
E. meleagrimitis[b]	1.9	0.0	0.0	0.0	0.0
Mixed *Eimeria* species[c]	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Mixed *Eimeria* species[d]	*53.0*	*5.0*	*0.0*	*0.0*	*0.0*
Mixed *Eimeria* species"	*58.0*	1.0	1.0	0.0	0.0

[a]NMNC = Non-medicated, non-challenged.

[b]Two studies with 4 replicates of 10 male poults and two studies with 4 replicates of 10 female poults.

"One study with 4 replicates of 10 male poults.

[d]Four studies with 2 replicates of 10 male poults.

[e]Four studies (same as above) with 2 replicates of 10 female poults.

Table 4.3. Average weight gain ($g \cdot poult^{-1}$) of birds challenged with oocysts of *Eimeria adenoeides, E. gallopavonis,* or *E. meleagrimitis,* or a combination of all three species and fed diclazuril-medicated or non-medicated feed in battery cage trials.

	Diclazuril, ppm				
Species	0.0	0.5	1.0	1.5	NMNC[a]
E. adenoeides[b]	126.2	182.3	191.5	193.6	192.9
E. gallopavonis[b]	71.0	89.9	95.8	97.1	97.7
E. meleagrimitis[b]	103.4	189.5	198.8	202.0	203.5
Mixed *Eimeria* species[c]	177.4	215.7	220.7	225.4	233.6
Mixed *Eimeria* species[d]	42.4	175.7	212.9	206.2	213.5
Mixed *Eimeria* species[e]	28.0	153.0	178.2	177.4	192.3

[a] NMNC = Non-medicated, non-challenged.

[b] Two studies with 4 replicates of 10 male poults and two studies with 4 replicates of 10 female poults; weight gain per bird days 0 to 6 post challenge.

[c] One study with 4 replicates of 10 male poults; weight gain per bird days 0 to 7 post challenge.

[d] Four studies with 2 replicates of 10 male poults; weight gain per bird days 0 to 7 post challenge.

[e] Four studies (same as above) with 2 replicates of 10 female poults.

Table 4.4. Fecal scores (no units) of birds challenged *with* oocysts of *Eimeria adenoeides*, *E. gallopavonis*, or *E. meleagrimitis*, or a combination of all three species and fed diclazuril-medicated or non-medicated feed in battery cage trials.

Species	Diclazuril, ppm				NMNC[a]
	0.0	0.5	1.0	1.5	
E. adenoeides[b]	3.6	0.9	0.4	0.3	0.0
E. gallopavonis[b]	3.4	1.0	0.3	0.6	0.1
E. meleagrimitis[b]	*3.9*	0.4	0.2	0.0	0.0
Mixed *Eimeria* species[c]	*3.9*	0.5	0.3	0.1	0.0
Mixed *Eimeria* species[d]	*3.9*	2.8	1.4	1.3	1.0
Mixed *Eimeria* species"	*3.9*	2.4	1.5	1.3	1.0

"NMNC = Non-medicated, non-challenged.

[b] Two studies with 4 replicates of 10 male poults and two studies with 4 replicates of 10 female poults; 0 = normal, 4 = wet and/or containing blood.

[c] One study with 4 replicates of 10 male poults; 0 = normal, 4 = wet and/or containing blood.

[d] Four studies with 2 replicates of 10 male poults; 1 = normal, 4 = wet and/or containing blood.

[e] Four studies (same as above) with 2 replicates of 10 female poults.

4. Conclusions:

These trials provided a basis for establishing the effectiveness of diclazuril at 0.5, 1.0, and 1.5 ppm against single or mixed infections of *Eimeria* spp. in growing turkeys. The lowest observed dose to provide optimal anticoccidial efficacy is 1 .O ppm.

B. Dose Confirmation

1. Investigators

Conrad Van Dijk, D.V.M., G.D.A.H.P.
Hope Laboratories
Shakespeare, Ontario NOB 2P0
Canada

Greg Mathis, Ph.D.
Southern Poultry Research, Inc.
Athens, GA 30607
USA

2. Introduction:

Two floor pen trials (P3 5 l-01 9, and P35 l-01 8) were conducted to confirm the effectiveness of 1 ppm diclazuril against mixed *Eimeria* species in growing turkeys living under simulated growing conditions. Turkeys were infected with different field isolates of all three major turkey species of coccidia *(E. adenoeides, E. gallopavonis,* and *E. meleagrimitis)* at 14 or 21days of age. Birds were fed non-medicated diets to days of challenge, and then administered 0 or 1 ppm diclazuril in their diets to market weight. Treatments were replicated 10 times (five for each gender) or 16 times (8 for each gender) in a randomized block design.

3. Results:

Table 4.5 summarizes the weight gains, mortality due to coccidiosis, and fecal litter scores at each location.

Table 4.5. Weight gain (kg-bird-‘), mortality due to coccidiosis (%), and fecal litter scores (no units) of birds challenged with oocysts of *Eimeria adenoeides, E. gallopavonis,* and *E. meleagrimitis* at 14 or 2 1 days of age.

	Trial Location			
	Georgia		Ontario	
Clinical Parameter	0 ppm	1 ppm	0 ppm	1 ppm
Males				
7-day post-challenge weight gain, kg	0.146	0.245	0.104	0.501
Mortality due to coccidiosis, %	15.4	0.0	19.6	0.0
Fecal litter score (l-4, l=normal)	2.93	1.07	1.25	1.01
Females				
7-day post-challenge weight gain, kg	0.119	0.212	0.078	0.421
Mortality due to coccidiosis, %	14.1	0.0	15.6	0.0
Fecal litter score (l-4, 1 =normal)	3.20	1.07	1.19	1.00

4. Conclusions:
Diclazuril at 1 ppm in the feed was effective against mixed infections with recent field isolates of *Eimeria* species in growing turkeys living under simulated commercial growing conditions.

C. Field Studies

1. Investigators:

Michael D. Sims, B.S.
Virginia Scientific Research
Suite 327, 1790-l 0 East Market Street
Harrisonburg, Virginia

Jerry Camp, D.V.M.
Camp Veterinary Services
155 Martin-Camp Road
Chesnee, South Carolina

Jack Trammell, Ph.D.
3 T Enterprises
114 South Railroad Street
Hamilton, Texas

Clair Fralick, Ph.D.
Kalmbach Feeds, Inc.
PO Box 38, 7148 State Road 199
Upper Sandusky, Ohio

2. Introduction:

Approximately 82,100 turkeys were involved in five field studies in Virginia, Texas, North Carolina (the investigator resides in South Carolina), and Ohio. Birds were reared under commercial conditions typical for each geographical location and facility and fed 1 ppm diclazuril. The average final body weight, feed conversion, and mortality rate of diclazuril-fed birds were compared with those of contemporaneous control birds in matching houses or with historical results of birds fed the standard anticoccidial program at each site. The control birds at each site received the standard growth promotion and feed medication program for the facility. Diclazuril-treated birds were not,fed a growth promotant at any time during the studies.

3. Study No. P351-003 – Virginia

Approximately 2,800 tom turkeys were placed in one end of a commercial turkey house and reared to market weight at 16 weeks of age. Diclazuril was withdrawn two weeks prior to slaughter.

4. Study No. P35 l-005 – North Carolina

Approximately 4,000 tom turkeys were placed in a brooder house and then moved to an adjacent grower house at seven weeks of age, then marketed at 18 weeks of age. Birds were fed diclazuril from day of age until two weeks prior to slaughter.

5. Study No. P35 l-006 – North Carolina

   Approximately 7,000 hen turkeys were placed in a brooder house and then moved to an adjacent grower house at seven weeks of age, then marketed at 13 weeks of age. Birds were fed diclazuril from day of age until two weeks prior to slaughter.

6. Study No. P35 l-027 – Texas

   Approximately 29,100 tom turkeys and 28,000 hen turkeys were placed in brooder houses and then moved to a grower house at five weeks of age, then marketed at 14 (hens) or 20 (toms) weeks of age. One-half of the birds were fed diclazuril from day of age until slaughter. The other half received the standard feed medication program.

7. Study No. P351-028 – Ohio

   Approximately 11,200 tom turkeys were placed in a brooder house and then moved to adjacent grower houses at 5 weeks of age, then marketed at 18 weeks of age. One-half of the birds were fed diclazuril from day of age until slaughter. The other half received the standard feed medication program.

8. Results:

   The growth, feed conversion, and mortality rate of diclazuril-treated birds were similar to those of contemporaneous or historical controls. No adverse reactions associated with the use of diclazuril were observed.

9. Conclusions:

   Diclazuril at 1 ppm in the feed was effective in providing protection against outbreaks of coccidiosis in growing turkeys reared under commercial growing conditions. Feed analyses demonstrated that diclazuril can be effectively mixed in turkey rations at proper use levels using the approved Type A medicated article (0.2% diclazuril) under commercial feed mill conditions.

V. ANIMAL SAFETY

A. Safety Margin (1X, 12.5X and 25X label feeding level); Report V 8370

1. Investigators: M. Engelen, D.V.M.
L. Maes, D.V.M.
W. Coussement, D.V.M., Ph.D.
J. Dony
R. Mostmans
Animal Health Department
Janssen Pharmaceutica, B-2340 Beerse, Belgium

2. General design: Two thousand seven hundred ninety-six (1128 male and 1668 female) day-old turkeys were allotted to four treatments. The birds were fed a commercial ration containing diclazuril at 0 (control), 1, 12.5 or 25 ppm for 16 weeks. Criteria for drug toxicity evaluation included: survival, clinical signs, body weights, feed consumption, feed conversion, litter moisture, hematology, serum biochemistry, gross necropsy, and histopathology examinations of selected tissues.

3. Results: Feeding diclazuril at 1, 12.5 or 25 ppm for 16 weeks did not adversely affect body weights, feed consumption, feed efficiency, or mortality. Although statistical differences were noted in hematology and biochemistry these findings were considered incidental, not biologically significant, and not treatment related because they were either not dose-related or were well within normal physiological values for turkeys. No adverse clinical signs or treatment-related gross or histopathologic lesions were observed in the study. No differences in litter moisture were observed.

4. Conclusion: Diclazuril has a wide safety margin in growing turkeys.

B. Dose Tolerance (10X label feeding level); Study No. 97492

1. Investigator: Terry N. TerHune, D.V.M., Ph.D.
Health Management Services
3346 Avenue 248
Tulare, California 93274

2. General design: Six hundred (300 male and 300 female) day-old turkeys were allotted to two treatments. The number of birds was reduced to 3 10 (140 male and 170 female) on Day 3.

The birds were fed a pelleted commercial ration containing diclazuril premix at 0 (control) or 10 ppm (10X) for 15 weeks (females) or 18 weeks (males). Criteria for drug toxicity evaluation included: survival, clinical signs, body weight gains, feed consumption, feed conversion, hematology (erythrocyte count, hemoglobin, hematocrit, leukocyte count, differential, and prothrombin time), gross necropsy, and histopathology examinations of selected tissues.

3. Results: Feeding diclazuril at 10 ppm for 18 weeks did not adversely affect body weights, feed consumption, feed efficiency, or hematology (of randomly selected subjects) of male turkeys. Feeding diclazuril at 10 ppm for 15 weeks did not adversely affect feed consumption, feed efficiency, erythrocyte count, hemoglobin, and hematocrit (of randomly selected subjects) in female turkeys. Although leukocyte and basophil counts were higher, and prothrombin time was higher in randomly selected female birds, and weight gains were slightly lower, these findings were considered incidental, not biologically significant, and not treatment-related. No adverse clinical signs or treatment-related gross or histopathologic lesions were observed in the study.

4. Conclusion: Diclazuril is safe for use in the feed of growing turkeys when fed at the recommended level of 1 ppm.

B. Safety Under Field Conditions

1. General Design: Summaries of five field studies are found in Section IV.C of this document, EFFECTIVENESS (page 6). In the studies, approximately 82,100 turkeys were tested in Ohio, North Carolina, Texas, and Virginia. Birds were reared under commercial conditions typical for each area. Results of the grow-out of birds fed diclazuril were compared with historical results in each house or contemporaneous controls in matched houses.

2. Results: Weight gain, feed consumption, morbidity, and mortality were similar to that of previous grow-outs or contemporaneous controls. No clinical signs of coccidiosis were reported.

3. Conclusion: Diclazuril is safe for use in the feed of growing turkeys under commercial conditions when fed at the recommended level of 1 ppm.

VI. HUMAN SAFETY

A. The toxicity studies summarized in the Freedom of Information Summary from NADA 140-95 1 (diclazuril Type A Medicated Article for broiler chickens) have met the Agency's requirement for Human Food Safety.

The acceptable daily intake (ADI) for diclazuril has been codified under 21 CFR 556.185 as 0.025 mg/kg per day. Safe concentrations were shown to be 5.0 ppm, 15 ppm, and 30 ppm in muscle, liver, and skin/fat in approved NADA 140-95 1. Tolerances for residues of parent diclazuril have been set at 0.5 ppm in muscle, 3 ppm in liver, and 1 ppm in skin/fat.

B. Total Residue Depletion and Metabolism Studies

Residues of ^{14}C-Diclazuril in Turkeys Following Repeated Oral Dosing (PLR 91AVI003), Pitman-Moore, Inc., Terre Haute, IN

Six (3 male and 3 female) twelve-week old turkeys were orally dosed (gelatin capsule) with radiolabeled diclazuril twice a day for 14 days. The total daily diclazuril dose was approximately 0.05 mg/kg body weight. Liver, kidney, breast muscle, thigh muscle, and abdominal fat tissue samples were collected six hours after the last dose and were combusted and counted by liquid scintillation. Liver samples were also extracted and analyzed by high performance liquid chromatography with radiometric detection. Diclazuril residues were highest in the liver (0.610 ppm for females and 0.407 ppm for males), confirming that the liver is the target tissue for diclazuril in turkeys. Parent diclazuril accounted for approximately 71% and 83% of the total extracted residue in livers from males and females, respectively. Other radiolabeled metabolites each accounted for less than 4% of the total residue. Table 6.2 summarizes the results.

Table 6.2 Concentration of diclazuril (ppb) in edible tissues of turkeys, treated with 0.05 mg/kg ^{14}C-diclazuril, six hours (practical 0) after the last dose.

Tissue	Total Residue, ppb, Males	Total Residue; ppb, Females
Breast Muscle	49	62
Thigh Muscle	70	88
Abdominal Fat Pad	186	307
Kidney	304	439
Liver	407	610

The data in table 6.2 show that by 6 hours after the last dose (practical zero withdrawal period) the total residue in each edible tissue is well below the applicable safe concentration for the tissue. The total residue essentially reflects unchanged diclazuril. Because the total residue at practical zero withdrawal essentially reflects unchanged diclazuril and because metabolites are present in such low concentrations relative to the safe concentration, a comparative metabolism study is not required to support approval of this application.

C. Assignment of a Zero Withdrawal Period

Because the total residue of diclazuril at 'practical zero withdrawal' (6 hours after the last dose) in each edible tissue of turkeys treated with diclazuril at the intended use level is more than ten-fold or more below the applicable safe concentration, no withdrawal period is required for birds treated according to label directions with diclazuril-medicated premix.

D. Regulatory Method and Tolerances

A sponsor-validated GC/EC method for diclazuril in edible tissues of turkeys is on file with the Center for Veterinary Medicine.

FDA is establishing the following tolerances for diclazuril in turkeys: 0.5 ppm in muscle, 3 ppm in liver, and 1 ppm in skin/fat.

VII. AGENCY CONCLUSIONS

The information submitted in support of this supplemental NADA for CLINACOX™ (diclazuril) for use in turkeys, satisfy the requirements of Section 512 of the Federal Food, Drug and Cosmetic Act (FFDCA) and implementing regulations at 21 CFR 5 14. The data demonstrate that diclazuril in the feed of growing turkeys at 1 ppm, when used according to labeling directions, is safe and effective for the prevention of coccidiosis caused by *Eimeria adenoeides, E. gallopavonis*, and *E. meleagrimitis.*

The agency has concluded that this product can be approved for over-the-counter marketing status because directions for use are clearly written, and there is reasonable certainty that the conditions of use including mixing directions on the label, can and will be followed by producers.

The Acceptable Daily Intake (ADI) for diclazuril has been codified under 21 CFR 556.185 as 0.025 mg/kg per day and safe concentrations were shown to be 5 ppm in muscle, 15 ppm in liver, and 30 ppm in skin/fat. Tolerances for residues of parent diclazuril have been set at 0.5 ppm in muscle, 3 ppm in liver, and 1 ppm in skin/fat. Because the total residue at practical zero withdrawal reflects unchanged diclazuril and because metabolites are present in such low concentrations relative to the safe concentration, a comparative metabolism study is not required to support approval of this application.

Under the Center's supplemental policy [2 1 CFR 5 14.1-6(b)(2)], this is a Category II change. The approval of this change is not expected to have any adverse effect on the safety or effectiveness of this new animal drug. Accordingly, this approval did not require a reevaluation of the safety and effectiveness data in the parent application.

Under section 5 12(c)(2)(F)(iii) of FFDCA, this approval for food-producing animals does qualify for THREE years of marketing exclusivity beginning on the date of approval because the supplemental application contains substantial evidence of the effectiveness of the drug involved, any studies of animal safety, or, in the case of food producing animals, human food safety studies (other than bioequivalence or residue studies) required for the approval of the application and conducted or sponsored by the applicant. The marketing exclusivity applies only to the use of diclazuril in growing turkeys for which the supplemental application was approved.

The agency has carefully considered the potential environmental effects of this action and has concluded that the action will not have a significant impact on the human environment and that an environmental impact statement is not required. The agency's Finding of no Significant Impact (FONSI) and the evidence supporting that finding are contained in an environmental assessment, which may be seen in the Dockets Management Branch (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, Maryland 20852.

CLINACOX™ (diclazuril) Anticoccidial Type A medicated article is under patent Number 463 1278, which expires on August 1, 2004.

VIII. APPROVED PRODUCT LABELING

Facsimile bag label - Type A medicated article (Attached)
Specimen (Blue Bird) Type B medicated feed label
Specimen (Blue Bird) Type C medicated feed label

Specimen (Bluebird) label - Type B medicated feed:

Net weight lb (kg) on bag or bulk

Diclazuril Turkey Concentrate

Type B Medicated Feed

Turkeys: For the prevention of coccidiosis caused by *Eimeria adenoeides, E. gallopavonis* and *E. meleagrimitis.*

ACTIVE DRUG INGREDIENT

Diclazuril ..... 182 g/ton (200 ppm)

GUARANTEED ANALYSIS

Crude protein, not less than	%
Lysine, not less than	%
Methionine, not less than	%
Crude fat, not less than	%
Crude fiber, not more than	%
Calcium, not less than	%
Calcium, not more than	%
Phosphorus, not less than	%
Salt', not less than	%
Salt', not more than	%
Sodium[2], not less than	%
Sodium[2], not more than	%

'If added.

[2]Shall be guaranteed only'when total sodium exceeds that furnished by the maximum salt guarantee.

INGREDIENTS

Each ingredient must be named in accordance with the names and definitions adopted by the Association of American Feed Control Officials.

DIRECTIONS FOR USE

Mix 10 lb of Diclazuril Turkey Concentrate with 1990 lb of unmedicated feed ingredients to produce 2000 lb of complete turkey feed containing 1 ppm diclazuril.

CAUTION: Do not feed undiluted. Do not feed to breeding turkeys

WARNING: Not for use in hens producing eggs for human consumption.

MANUFACTURED BY
BLUE BIRD FEED MILL
Anytown, USA 12345

Specimen (Bluebird) label - Type C medicated feed

Net weight lb (kg) on bag or bulk

Diclazuril Turkey Ration

Type C Medicated Feed

Turkeys: For the prevention of coccidiosis caused by *Eimeria adenoeides, E. gallopavonis* and *E. meleagrimitis*.

ACTIVE DRUG INGREDIENT

Diclazuril	0.91 g/ton (1 ppm)

GUARANTEED ANALYSIS

Crude protein, not less than	%
Lysine, not less than	%
Methionine, not less than	%
Crude fat, not less than	%
Crude fiber, not more than	%
Calcium, not less than	%
Calcium, not more than	%
Phosphorus, not less than	%
Salt', not less than	%
Salt', not more than	%
Sodium[2], not less than	%
Sodium[2], not more than	%

'If added.

[2]Shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.

INGREDIENTS

Each ingredient must be named in accordance with the names and definitions adopted by the Association of American Feed Control Officials.

DIRECTIONS FOR USE

Feed continuously as the sole ration.

CAUTION: Do not feed to breeding turkeys

WARNING: Not for use in hens producing eggs for human consumption.

MANUFACTURED BY

BLUE BIRD FEED MILL
Anytown, USA 12345

SCHERING-PLOUGH ANIMAL HEALTH
CLINACOX™ TYPE A MEDICATED ARTICLE
SUPPLEMENT TO APPROVED NADA 140-951

Addition of Claim for Growing Turkeys **April 25, 2001**

Net weight lb (kg) on bag or bulk

Diclazuril Growing Turkey Concentrate
Type B Medicated Feed

Growing turkeys: For the prevention of coccidiosis caused by *Eimeria adenoeides, E. gallopavonis* and *E. meleagrimitis*.

ACTIVE DRUG INGREDIENT

Diclazuril ..... 182 g/ton (200 ppm)

GUARANTEED ANALYSIS

Crude protein, not less than	%
Lysine, not less than	%
Methionine, not less than	%
Crude fat, not less than	%
Crude fiber, not more than	%
Calcium, not less than	%
Calcium, not more than	%
Phosphorus, not less than	%
Salt[1], not less than	%
Salt[1], not more than	%
Sodium[2], not less than	%
Sodium[2], not more than	%

[1] If added.

[2] Shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.

INGREDIENTS

Each ingredient must be named in accordance with the **names** and defmitions adopted by the Association of American Feed Control Officials.

DIRECTIONS FOR USE

Mix 10 lb of Diclazuril Growing Turkey Concentrate with 1990 lb of unmedicated feed ingredients to produce 2000 lb of complete growing turkey feed containing 1 ppm diclazuril.

CAUTION

Do not feed undiluted.

Do not feed to breeding turkeys

WARNING: Not for use in hens producing eggs for human consumption.

MANUFACTURED BY

BLUE BIRD FEED MILL

Anytown, USA 12345

SCHERING-PLOUGH ANIMAL HEALTH

CLINACOX™ TYPE A MEDICATED ARTICLE

SUPPLEMENT TO APPROVED NADA 140-951

Addition of Claim for Growing Turkeys **April 25, 2001**

Net weight lb (kg) on bag or bulk

Diclazuril Growing Turkey Ration

Type C Medicated Feed

Growing turkeys: For the prevention of coccidiosis caused by *Eimeria adenoeides, E. gallopavonis* and *E. meleagrimitis.*

ACTIVE DRUG INGREDIENT

Diclazuril	0.91 g/ton (1 ppm)

GUARANTEED ANALYSIS

Crude protein, **not less** than	%
Lysine, not less than	%
Methionine, not less than	%
Crude fat, not less than..	%
Crude fiber, not more than	%
Calcium, not less than	%
Calcium, not more than	%
Phosphorus, not less than	%
Salt[1], not less than	%
Salt[1], not more than	%
Sodium[2], not less than	%
Sodium[2], not more rhan	%

[1]If added.

[2]Shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.

INGREDIENTS

Each ingredient must be named in accordance with **the** names and defmitions adopted by the Association of American Feed Control Officials.

DIRECTIONS FOR USE

Feed continuously **as** the sole **ration.**

CAUTION: Do not feed to breeding turkeys.

WARNING: Not for use **in** hens producing eggs for human consumption.

MANUFACTURED BY

BLUE BIRD FEED MILL
Anytown, USA 12345

NDC 0138-5215-01

Clinacox™
(DICLAZURIL)

Anticoccidial
Type A Medicated Article

[redacted]

ACTIVE DRUG INGREDIENT: Diclazuril, 0.2%

INERT INGREDIENTS: Wheat middlings, calcium carbonate, soybean oil with 0.02% TBHQ (preservative), and silicon dioxide.

INDICATIONS: Broiler chickens: For the prevention of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. brunetti*, *E. mitis (mivati)*, and *E. maxima*. Because diclazuril is effective against *E. maxima* later in its life cycle, subclinical intestinal lesions may be present for a short time after infection. Diclazuril was shown in studies to reduce lesion scores and improve performance and health of birds challenged with *E. maxima*.

Insert "Growing" →

Turkeys: For the prevention of coccidiosis caused by *Eimeria adenoides*, *E. gallopavonis*, and *E. meleagrimitis*.

IMPORTANT: MUST BE THOROUGHLY MIXED INTO POULTRY FEEDS BEFORE USE.

DIRECTIONS: Thoroughly mix one pound (1 lb.) of CLINACOX (0.2% diclazuril) into each ton of complete feed to provide 1 ppm of diclazuril (use level). It is recommended that an intermediate mix containing one part CLINACOX and not less than nine parts appropriate feed ingredient be thoroughly mixed before incorporation into the final feed.

Insert

WARNING: Not for use in hens producing eggs for human food.

CAUTION: Do not feed to breeding turkeys,

LOT

EXP

Net Wt. 50 lb./22.68 kg

00000000 Rev. 11/98

Schering-Plough Animal Health Corporation
Union, NJ 07083

NADA #140-951, Approved by FDA

Schering-Plough Animal Health

clinacox™ (DICLAZURIL) Net Wt. 50 lb./22.68 kg

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