

M-NINEVAX[®]-C

Pasteurella multocida Vaccine

(Avian Isolate, Avirulent Live Culture)

For vaccination of healthy breeder and layer chickens and turkey breeders as an aid in the prevention of fowl cholera due to *Pasteurella multocida*.

ADVANTAGES:

- Strong protection against *P. multocida* serotype 1 (chickens) and serotype 3 (turkeys)
- Mild reactions for minimal stress
- **SAFE.** Avirulent live culture will not revert to virulence; will not cause mortality
- Specially formulated diluent provides excellent reconstitution stability



M-Ninevax[®]-C vaccine is a live bacterial vaccine containing the mild avirulent M-9 strain of *P. multocida*, Heddleston type 3-4 cross, in a freeze-dried preparation sealed under vacuum.

This vaccine strain has been shown to offer protection as an aid in the prevention of fowl cholera in chickens and turkeys. The seed culture used to make this vaccine has been laboratory tested for protection in chickens against challenge with *P. multocida* serotype 1 and in turkeys against challenge with *P. multocida* serotype 3.

10 x 1,000 doses



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(Avian Isolate, Avirulent Live Culture)



For Animal Use Only.

Description

M-Ninevax[®]-C vaccine is a live bacterial vaccine containing the mild avirulent M-9 strain of *Pasteurella multocida*, Heddleston type 3-4 cross, in a freeze dried preparation sealed under vacuum. This vaccine strain has been shown to offer protection as an aid in the prevention of fowl cholera in chickens and turkeys. The seed culture used to make this vaccine has been laboratory tested for protection in chickens against challenge with the X-73 (type 1) strain of *P. multocida* and in turkeys against challenge with the P1059 (type 3) strain of *P. multocida*.

When to Vaccinate

BY WING-WEB

Chickens: Use by wing-web stab to vaccinate chickens 10-12 weeks of age and again at 18-20 weeks of age as an aid in the prevention of pasteurellosis (fowl cholera) due to *P. multocida* type 1. There should be at least 6 weeks and not more than 10 weeks between vaccinations. Turkeys: Use by wing-web stab to vaccinate turkey breeders 15 weeks of age or older as an aid in the prevention of pasteurellosis (fowl cholera) due to *P. multocida* type 3. Birds should initially be wing-web vaccinated at 15-18 weeks of age and again 8 weeks later. Turkey breeders must be vaccinated at least twice with live fowl cholera vaccine via oral route prior to wing-web vaccination. The interval between the last oral vaccination and the first wing-web vaccination should not exceed 6 weeks. Additional wing-web vaccination every 6-8 weeks throughout the life of the bird may be required in areas of endemic exposure to fowl cholera.

BY DRINKING WATER

Turkeys: Best results are obtained when vaccine is administered initially to turkeys 6 to 8 weeks of age, followed by a booster dose 3 weeks later, and repeated every 4 to 6 weeks thereafter as necessary according to exposure conditions.

Your Vaccination Program

The development of a durable, strong protection to this disease depends upon the use of an effective vaccination program as well as many circumstances such as administration techniques, environment and flock health at the time of vaccination. Also, the immune response to 1 vaccination under field conditions is seldom complete for all animals within a given flock. Even when vaccination is successful, the protection stimulated in individual animals against different diseases may not be lifelong. Therefore, a program of periodic revaccination may be necessary.

Contraindications

FOR WING-WEB VACCINATION

Chickens: Initial vaccination in chickens over 12 weeks of age may be undesirable because larger granulomas may develop at the site of inoculation and this may result in downgrading of carcasses at slaughter.

Turkeys: Use of this vaccine in turkeys which have not been orally revaccinated may cause severe post-vaccination reactions, including lameness and death.

FOR DRINKING WATER VACCINATION

Turkeys: Must be healthy and free of environmental or physical stress at the time of vaccination. Initial vaccination with this vaccine should not be conducted in turkeys older than 12 weeks of age. Do not use this vaccine within 2 weeks before or 2 weeks after vaccinating turkeys with live virus Newcastle vaccine.

Preparation of Vaccine

FOR WING-WEB ROUTE OF ADMINISTRATION

1. Do not open and mix the vaccine until ready for use.
2. Mix only 1 vial at a time and use entire contents within 2 hours.
3. Remove the tear-off aluminum seal and stopper from vial containing the dried vaccine.
4. Remove the tear-off aluminum seal and stopper from the bottle containing the diluent.
5. Hold the diluent bottle firmly in an upright position and insert the shorter end of the transfer tube. Still holding the diluent bottle in an upright position, insert the neck of the vaccine vial over the longer end of the transfer tube. The vaccine vial should snap into position, connecting the 2 vials securely.

6. Invert the 2 containers so that the vaccine vial is on the bottom and allow the diluent to flow into the vaccine vial. If the diluent does not flow freely, squeeze the diluent bottle gently and the diluent will flow into the vaccine vial. The vaccine vial should be completely filled with diluent to prevent excess foaming.
7. Hold the joined containers by the ends; shake vigorously until the vaccine plug is completely dissolved.
8. Return the joined containers to their original position (diluent bottle on the bottom). Allow the vaccine to flow into the diluent bottle. If the vaccine does not flow into the diluent bottle, tap or squeeze the diluent bottle gently and release to draw the vaccine into the diluent bottle. Be sure all the product is removed from the vaccine vial.
9. Remove the vaccine vial and transfer tube from the neck of the diluent bottle.
10. The vaccine is now ready to use.
11. Wash hands thoroughly after mixing the vaccine.

FOR DRINKING WATER ROUTE OF ADMINISTRATION

1. Assemble the vaccine and equipment needed to vaccinate the entire flock at one time.
2. Do not open and rehydrate the vaccine until ready for use.
3. Remove the tear-off aluminum seal and stopper from vial containing the dried vaccine.
4. Use cool, clean, non-chlorinated tap water to which powdered milk has been added as directed under HOW TO VACCINATE.
5. Remove the rubber stopper from the vaccine vial and rehydrate the vaccine by filling the vial about half-full with tap water (milk added).
6. Reseat the stopper and shake to thoroughly dissolve the vaccine.

How to Vaccinate

BY WING-WEB METHOD

Vaccination is accomplished by dipping the needle applicator into the mixed vaccine and piercing the webbed portion of the underside of the wing. Avoid piercing through feathers which may wipe off the vaccine, and avoid hitting the wing muscle or bone to minimize reaction. The applicator is designed to pick up the proper amount of vaccine on the needles, which is deposited in the tissues when the wing is pierced. Re-dip the applicator in the vaccine before each application. Excess vaccine adhering to the applicator should be removed by touching the applicator to the inside of the vial.

BY DRINKING WATER METHOD

Do not mix the vaccine into the drinking water until ready for use. Drinking water for vaccination should be mixed with powdered milk to prevent inactivation from chlorine or other water additives and also to stabilize the vaccine bacteria. The powdered milk should be added to the water at the rate of 3 grams per 11 liters (1 heaped teaspoon per 3 U.S. gallons); or 87 grams per 190 liters (1 heaped cupful per 50 U.S. gallons). Use only clean waterers and equipment free of disinfectants or sanitizers. All water must be withheld for at least 2 hours prior to vaccination to assure that all turkeys drink.

Mix the rehydrated vaccine in the quantity of drinking water (milk added) which will be consumed by thirsty turkeys in approximately 2 hours. The following schedule is a general guideline for the amount of water to use with the vaccine. These amounts will vary depending upon the individual management conditions, climate, age and sex of the birds.

Amount of Water for Each 1000 Doses

Age	Sex	Climate	Liters	US gal
6-8 wks.	Toms	Hot	95	25
6-8 wks.	Hens	Hot	76	20
6-8 wks.	Toms	Cold	49	13
6-8 wks.	Hens	Cold	38	10
10-14 wks.	Toms	Hot	133	35
10-14 wks.	Hens	Hot	103	27
10-14 wks.	Toms	Cold	68	18
10-14 wks.	Hens	Cold	53	14

Reactions: Examination for Takes FOR WING-WEB VACCINATION

Normally, no overall clinical reaction is observed. At 5 to 10 days following vaccination, a swelling of the skin (subcutaneous granuloma) will develop on the wing-web at the point of inoculation. The absence of this local reaction may mean that improper vaccination methods were used. Examination for these "takes" at 7 days post-vaccination may be used to assure that proper vaccination has been conducted. Protection will normally develop within 14 days after vaccination.

Caution

1. For use in chickens and turkeys only.
2. Vaccinate only healthy birds. Although disease may not be evident, disease conditions may cause serious complications or reduce protection.
3. Avoid vaccinating birds during weather-induced stress periods and 7 days prior to and 7 days after moving and handling. To avoid interference with development of protection, birds to be vaccinated should not be given any antibiotic and/or sulfonamide medication used in the prevention or treatment of fowl cholera for 3 days before and 5 days after vaccination.
4. All birds within a flock should be vaccinated on the same day. Isolate other susceptible birds on the premises from the birds being vaccinated.
5. In outbreak situations, vaccinate healthy birds first, progressing toward outbreak areas in order to vaccinate diseased birds last.
6. Do not spill or spatter the vaccine. Use entire contents of vial when first opened. Burn empty bottles, caps and all unused vaccine and accessories.
7. Avoid contact of open wounds or inoculation of vaccinating personnel with the vaccine since this might cause a bacterial infection. If this occurs, consult a physician immediately to obtain proper treatment. The vaccine organism, as with any *Pasteurella multocida* strain, may accidentally act as a human pathogen and precaution should be taken to avoid exposure.
8. Wash hands thoroughly after using the vaccine.
9. Do not dilute the vaccine or otherwise stretch the dosage.
10. Store at 2° to 7° C (35° to 45° F).
11. Do not vaccinate within 21 days before slaughter.

Notice

This product is not hazardous when used according to directions supplied. A safety data sheet (SDS) is available upon request. This and any other consumer information can be obtained by calling Merck Animal Health Customer Service at 1-800-211-3573.

Records

Keep a record of vaccine type, quantity, serial number, expiration date, and place of purchase; the date and time of vaccination; the number, age, breed, and location of the birds; names of operators performing the vaccination and any observed reactions.

Contact our sales or technical services representatives to help design a custom vaccination program.