



COOK COLLEGE • POULTRY HEALTH LABORATORY • 2569 EAST LANDIS AVENUE • VINELAND • NEW JERSEY 08320

January 23, 1979

In reply to your letter of January 14, 1979, we are furnishing you, in answer to your questions, all the information available to us on the subject:

Question # 1 - Exactly where, in the neck, is the injection for Marek's disease given?

Answer: Subcutaneously on the dorsum of the neck, two to three centimeters distal to the nuchal crest.

Question # 2 - Is it at all possible, or even probable, that during the administration of the Marek's injection, the needle could or would come in contact with and pierce the membrane of the esophagus tube of the chick? Please explain and specify.

Answer: It is possible, but very unlikely, in the hands of experienced vaccinators who are trained to grasp the loose skin in the back of the neck with the thumb and index finger, before thrusting the needle in; therefore, they can readily sense if they have grasped a tough muscular tube such as the esophagus.

Question # 3 - In which part of the neck and of the breast, exactly, are the antibiotic injections given?

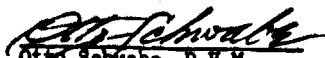
Answer: The same area of the neck and the same technique is used for subcutaneous antibiotic injection as it is used for Marek's disease inoculation. For intramuscular administration, the pectoral muscle, that is, the large muscle mass which fills the cavity of the keel bone, is used. Occasionally, injections are made into the muscles of the thigh or the tibiotarsal bone.

Question # 4 - What percentage of chickens will receive antibiotic injections during their lifetime; that is, percentage of the whole sum total of the flock? Please specify.

Answer: 100 % of the chickens receive low levels of antibiotics in the feed for growth promotion. For therapeutic purposes, all the flocks are treated an estimated 2-3 times during their life time.

We hope we have been of some help to you. If you have any additional questions, please do not hesitate to ask.

Sincerely yours


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Research Professor

CS/cc



RUTGERS VACCINATION SCHEDULE FOR THE LAYING FLOCK

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Vaccinations, if properly programmed for healthy birds, usually protect your flock against the hazards of Newcastle disease, bronchitis, infectious laryngotracheitis, fowl pox, and epidemic tremor.

A Guide and Suggestions for Vaccinating Replacement Pullets

1. Always read, understand, and follow the directions that come with the vaccine.
2. Remember you may be handling a live virus. It can cause a specific disease if improperly used. Be careful. Do not use vaccines after expiration date.
3. Birds to be vaccinated should be in good health.
4. Mix vaccine just before using, and use it within 4 hours after mixing. Keep mixed vaccines cool on hot days. Do not run live virus vaccines through rusty water pipes.
5. Be sure needle or brush carries vaccine to each bird. Do not *stretch* amount of vaccine.
6. Be careful when vaccinating. Do not try for a speed record. Get vaccine into the bird.
7. Avoid spilling vaccine on clothes or on litter. A block of wood with holes in it to hold vaccine bottles may be useful.
8. Burn all unused vaccine and unused portions of mixed vaccines at the end of each day.
9. Use the same strain of vaccine throughout the program except the Roakin strain of Newcastle, which:
 - a. Should not follow the use of B₁ type vaccines.
 - b. Should not be used on birds in production.
10. It is believed that stress is a factor in triggering dormant leukosis infections. Since some combinations of vaccines stress birds severely, each manufacturer's written instructions should be followed. It is best not to mix or combine Newcastle disease and bronchitis vaccines. Use these vaccines separately.
11. Crated birds should not be vaccinated until the time of release on new premises.
12. Yearlings: Recommend revaccination at the time of molt for all diseases for which previously vaccinated or for diseases prevalent in the area.
13. Sanitation by vaccination crews:
 - a. Wear *clean* outer clothing and *clean* rubber footwear between each farm vaccination job.
 - b. Clean and disinfect crates, trucks, tires, footwear, and equipment when each farm vaccination job is completed. Inspect these items for cleanliness before reuse.
 - c. Practice cleanliness at all times to avoid disease transmission.
14. Vaccines used in drinking water: Be sure water is fresh and free of sanitizers and chlorine.
15. Fowl cholera bacterin may require two injections given subcutaneously. Be sure to follow manufacturer's directions. (See item 1 above.)

What to look for in "takes" and reactions

Vaccine	Time to read reaction	Lesions	Length of visible reaction
Fowl pox Modified pox	7 to 9 days	Small scabs and distinct swelling at wing-web site of stab vaccination.	5 to 15 days
Pigeon pox	7 to 9 days	Swelling of the follicles into which vaccine was placed.	5 to 15 days
Laryngotracheitis	4 to 5 days	Swelling and redness of upper lip of vent. Eye-drop reaction; may be watery eyes in 2% of birds.	3 to 7 days

Examine at least 5 percent of all birds vaccinated in each pen. If 80 percent "takes" are not visible, immediately contact your vaccination crew or supplier of vaccines.

If more than one serial lot of vaccine is used, record each serial lot and spot check at least 5 percent of the birds vaccinated with each serial lot of vaccine.

RUTGERS VACCINATION SCHEDULE FOR THE LAYING FLOCK

Vaccines for	First vaccination	Second vaccination	Third vaccination
NEWCASTLE B₁ type. Use if no outbreaks have been reported in the area during the past month.	Age: 4 weeks. Method: Water, intranasal, intraocular, <u>intramuscular</u> , or method of your choice.	Age: 16 weeks or at housing time. Method: Water, intranasal, intraocular, <u>intramuscular</u> , or method of your choice.	Age: Every 3 to 4 months or follow manufacturer's recommendations. Method: Same as for second vaccination.
NEWCASTLE Roakin strain. Do not use as first vaccination after 6 weeks of age.	Age: 4 to 6 weeks. Method: <u>Wing-web stab.</u>	Age: 16 weeks. Method: B ₁ type, as above or Roakin strain <u>wing-web stab.</u>	As above.
NEWCASTLE B₁ type. Use on birds under 4 weeks of age when outbreaks occur in area.	Age: Up to 4 weeks. Method: Water, intranasal, intraocular, <u>intramuscular</u> , or method of your choice.	Age: 4 to 5 weeks or not earlier than 3 weeks after first vaccination. Method: Same as for first vaccination.	As above.
BRONCHITIS Mass. type or polyvalent - Mass.-Conn. type vaccine.	Age: 12 to 18 weeks. Method: Water, intranasal, or intraocular.	Not necessary unless birds are vaccinated before 12 weeks of age. Follow manufacturer's directions.	Not necessary unless recommended by manufacturer.
LARYNGOTRACHEITIS Vaccinate all birds on farm at same time. If an outbreak occurs, vaccinate all susceptible, birds immediately.	Age: 6 to 20 weeks or older if necessary. Method: Vent-brush vaccine or eye-drop vaccine.	Age: Not necessary for vent-brush vaccine. If first eye-drop vaccination is before 10 weeks of age, apply eye-drop vaccination again at 16 to 20 weeks.	Not necessary.
LARYNGOTRACHEITIS If vaccination becomes necessary before 6 weeks of age.	Age: 2 to 6 weeks. Method: Eye-drop vaccine, or vent-drop vaccine. Variable results before 4 weeks of age.	Age: 6 to 8 weeks after first vaccination. Method: Eye-drop vaccine or vent-brush vaccine.	Not necessary.
FOWL POX Where early protection is not necessary.	Age: 8 to 16 weeks. Method: <i>Fowl pox or modified pox vaccine:</i> <u>wing-web stab</u> - 2 needles. <i>Pigeon pox vaccine:</i> Brush or spray into 1" by 2" area of exposed feather follicles on leg or wing-web stab if directed by manufacturer.	Not necessary. NOTE: During pox reaction period, do not stress birds by giving any other vaccines or by debeaking.	
FOWL POX Where early protection is necessary.	Age: 1 day to 8 weeks. Method: <i>Modified pox vaccine only.</i> <u>Wing-web stab.</u> <i>Pigeon pox vaccine:</i> Spray or brush into exposed feather-follicle area on leg.	Age: 16 to 20 weeks or before housing. Method: Same as for first vaccination. <u>Wing-web stab</u> may be preferred by manufacturer. Follow printed directions.	Not necessary.
EPIDEMIC TREMOR (AE OR AVIAN ENCEPHALOMYELITIS) For breeders or replacement pullets.	Age: 10 to 16 weeks. Method: <i>Live virus vaccine:</i> water. OR Age: 15 to 20 weeks. Method: <i>Killed virus vaccine:</i> <u>subcutaneous injection.</u>	Not necessary.	

Supersedes Leaflet 383.