1984

G84-718 Cannibalism: Cause and Prevention in Poultry

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Cannibalism
Cause and Prevention in Poultry

This NebGuide discusses reasons why cannibalism occurs in poultry, and provides management procedures for preventing it, including three methods of beak trimming.

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Chickens, turkeys, pheasants and quail will literally pick each other to death at times. This problem can be very expensive for the producer and can make life for the flock very uncomfortable. Once cannibalism starts, it readily becomes a habit that must be stopped.

For our purposes, cannibalism includes feather pulling, toe pecking and head, wing, and tail picking. Prevention is much easier for man and bird than is treatment.

Cause

It is usually impossible to pinpoint any one reason for the start of this behavioral problem in birds. There are many management conditions that are known to be involved or related to an outbreak. Some of these are:

- Overcrowding.
- Insufficient feeder, waterer or nesting space.
- Flock nervousness or overexcitement (may be breed related).
- Dietary absences or deficiencies.
- Incorrect lighting (usually too much light).
- Lame birds left in the flock.
- Stresses due to moving birds or making other necessary management changes.
- Prolapse of another egg laying female.
- Females laying on the floor rather than in a nest or cage.
- Timid birds in the flock that are not getting enough feed or water.
- Keeping different ages or colors together. Any off-colored chicks in a flock do not have a ghost of a chance. It is more humane to remove them. A separate flock may be necessary for age or color differences.
- Extremely high environmental temperatures.
- Abrasions or tears that may be the result of an accident or mating.
- Diseases, especially if the nervous system is affected.
- Pure meanness on the part of the birds.

A combination of these factors is usually involved in any outbreak. Some cannot be corrected even though you know they are involved. Birds usually do need to be moved from the brooder house to growing facilities, and in some cases, moved a third time into laying quarters. If a nervous breed is purchased, you have to live with the problem, at least until the birds are marketed. Temperature control is expensive and sometimes impossible. A nutritional deficiency or a disease is sometimes very difficult to detect and, at best, considerable time is required to make these kinds of determinations. In the meantime, the birds may have devoured each other.

To make matters worse, if an outbreak occurs and one or more corrections are made, the outbreak may continue. Once the habit is started, it is often too late for effective management changes with the affected flock. Perhaps the most frustrating thing about cannibalism is that management may be near perfect and outbreaks still occur. This makes prevention through "bird care" alone virtually impossible.

**Stopping An Outbreak**

This habit must be stopped quickly. A variety of methods are talked about and have been tried to accomplish this objective. Some of them are:

- "Goggles" or "bits" affixed to the bird's beak, or "tin pants" on the vent.
- Applying "anti-pick" compounds (commercial "anti-pick", pine tar or axle grease) to wounded areas.
- Removal of birds doing the picking.
- Continue dim light to minimize activity.
- Keeping the birds busier:
  a. Locate semi-solid milk or whey blocks around the house for birds to eat;
  b. hanging green leafy vegetables in the pen for the birds to pick;
  c. spread grass clippings in the pen daily;
  d. turn the birds outside;
  e. feed small grains in deep litter.
- Feed changes, picking depressants.
- Eliminate areas where bright sunlight strikes the floor.
- Beak trimming.

All of these techniques, singly and in combination, have been shown to be effective on some flocks. However, the only one that is consistently effective in stopping an outbreak is beak trimming. The others work sometimes, and sometimes they don't. You never know beforehand whether they will work on your flock.

"Goggles" and "bits" are probably second to beak trimming in effectiveness. These devices are not
readily available and do not always fit young birds. When cost, labor, inconvenience and bird comfort are considered, trimming is usually a better approach.

It is a good idea to apply "anti-pick" compounds to injured birds even though the flock has been trimmed to stop the outbreak.

**Prevention**

Even though outbreaks sometimes occur in the best managed flock, it is well documented that the better the management, the less often problems arise. Therefore, the first step in a cannibalism control program is to give the birds the best care possible. Correct management conditions that may contribute to an outbreak before one occurs.

Raising birds in continuous dim light does discourage picking. However, they must be reared in a windowless mechanically ventilated house to be able to control all light and still keep the birds comfortable. Even with total light control some outbreaks of cannibalism have been reported. Dim lights are sometimes used in combination with beak trimming to prevent cannibalism.

A combination of good management, correct lighting and beak trimming will prevent the problem. Beak trimming can be used to control the malady even when management is not good. However, trimming alone does not correct poor management and can serve to temporarily "cover-up" management problems that may result in poor performance from the flock, so good management is essential.

**When To Trim Beaks**

The growing system and the purpose for which the birds are being grown should be used to decide on a trimming schedule. Young birds are usually trimmed before 10 days of age. In general, birds being raised for egg production are trimmed early, again just before they go into the laying house, and their beaks may need to be "touched-up" again in mid-production. This is especially true when the trim at housing time was light.

Some alternate beak trimming plans are as follows:

**PLAN 1.** Trim at one day of age in the hatchery or within the first 10 days of hatch at home with a dog nail clipper or an electric knife trimmer. This first trim is usually adequate to protect against cannibalism for 8 to 10 weeks. Birds that are to be processed young for meat usually need only one trimming. Turkeys are an exception to this unless they are trimmed heavily or the first trimming is delayed until they are 7 to 10 days of age. More of the beak can be removed at this time without serious stress.

The second step is to moderately trim again at layer housing time. It may be necessary to selectively "touch-up" some females during the laying period.

This plan assumes that the growing birds are grown where space and other management is adequate to prevent cannibalism.

**PLAN 2.** For birds grown totally in confinement, follow step 1 of Plan 1, then trim a second time at 8 to 10 weeks of age, and again at housing time.

**PLAN 3.** Perform a heavy trimming at one day of age or within the first week and do not trim again except for "touch-ups". This method is not recommended because it causes severe stress to the birds and may affect their ability to eat for life.
These plans are offered only as ideas to aid in planning a beak trimming program. Variations or combinations of these plans may be needed. The important consideration is that cannibalism prevention needs to be a part of the overall regular management program.

**How To Trim Beaks**

Home flock owners may not wish to invest in an electric trimmer. A dog nail clipper purchased at a pet store or a sharp knife can be used to perform light (clear portion of beak removal) trimming (*Figure 1*). Medium and heavy trimming should be done on an electric trimmer that cauterizes the remaining beak.

*Figure 1* shows upper mandible trimming only. This method works well with birds to be butchered before maturity. If birds are grown to maturity, this method often results in the lower mandible growing undesirably long. If it grows beyond the upper by more than 1/2 inch, its tip should be removed (touched-up). Any upper mandible growth might also be retrimmed at this time.

Another method is to remove one-third (medium trim) of the upper mandible and the tip of the lower mandible. *Figure 2* shows this type of cut.

A third method is called block trimming. One-third of both the upper and lower mandibles are removed in one operation (*Figure 3*). It is desirable to make both of these latter types of cuts with an electric trimmer.

Some procedural steps are important in the trimming process. They are as follow.

1. If a dog nail clipper or knife is used, remove only the portion of the upper beak that is free of
blood supply. It is not recommended to cut into the "quick" without cauterization.

2. Heat the trimming blade to a cherry red before work begins. The trimming blade should not be too hot, too cold or dull. An excessively hot blade causes blisters in the mouth. A cold or dull blade causes a fleshy, bulblike growth to develop on the end of the mandible. These growths are very sensitive and cause discomfort, reducing performance.

3. Insert your index finger into the bird's mouth to force the beak open and the tongue down and back.

4. Place the top mandible on the trimming bar, lower the head to obtain a 20 to 30° slant back toward the roof of the mouth and cut the mandible. Cut slowly, allowing the blade to cauterize the tissue.

5. Place the lower mandible on the bar and cut in a straight block form.

6. Roll each mandible against the blade to round the edges and further cauterize the tissue.

7. Some new special attachments permit trimming both mandibles at the same time on young birds.

8. Do not pull the mandible away from the blade until it is completely severed. Incomplete severance causes torn tissue in the roof of the mouth.

9. Never use a warped or bent blade, and keep the trimming bar and blade in perfect alignment.

10. Carefully check each mandible and touch it up if improperly cut. Missed birds and those carelessly trimmed can cause trouble later on.

**Pre- and Post-trimming Management Tips**

Before and after trimming, certain management practices can minimize stress on the birds. It is important to prevent mortality and reduction in feed consumption and body weight after trimming. Some procedures that will help are:

1. Keep the birds as cool as possible if trimming during hot weather. It is better to do the work early in the morning or after sundown in the evening. Keep fresh, cool water available at all times.

2. Extra vitamin K can be fed or added to the water for 4 to 7 days prior to trimming. This minimizes any bleeding problems.

3. For the first 4 to 7 days after trimming, keep fresh feed with a minimum depth of 2 inches before the birds. They are not capable of pecking the bottom of the feeder at this time.

4. Stimulate feed consumption by adding feed twice daily or running mechanical feeders more often.

5. Birds should not be subjected to stress from housing, vaccinating, or worming during the week prior to or the week after trimming.