Cannibalism in Poultry
causes of problems complex and probably
involve nutrition, genetics and management

Wilbur O. Wilson

Chickens and turkeys normally feed
on grains, vegetation and meat but under
certain conditions they may become meat
eaters to the extent of being cannibalistic.

In baby chicks, toe-picking is the first
symptom; feather picking comes later. The
soft quills which are filled with blood
are especially appetizing to the cannibals.
Small feathers on the back and wings are
most easily accessible for picking. Feather
picking also occurs around the vent and
tail. Once blood has been drawn from a
bird, its pen mates literally see red and
wander off. The causes of cannibalism are
uncertain and very complex, and probably
involve the nutrition of the bird, its
genetic background and its management.

Nutritional Factors

It is likely that a deficiency of any one
of several nutrients may cause the bird
to have a depraved appetite and may lead
to cannibalism.

It is also possible that there exist spe-
cific factors which are needed to prevent
cannibalism and other factors whose
presence in a ration is conducive to the
vice.

The reported prevalence of cannibalism
on high corn-containing feeds indicates
that corn is deficient in a factor necessary
for the prevention of cannibalism or con-
tains a factor which promotes it.

Fiber has repeatedly been reported as
playing a role, more especially the fiber
of oat hulls. The recent reported success
of raising broilers on high corn and low
fiber rations does not necessarily cast
doubt on the previous reports of the ef-
effects of corn and fiber on cannibalism,
but it certainly adds confusion to the
problem and emphasizes its complexity.

Mineral supplements such as sodium
chloride, calcium chloride and manga-
nes also seem to play uncertain roles.
Certain protein supplements may in some
instances be a limiting factor.

It will be impossible to do reliable re-
search until cannibalism can be produced
experimentally at will. A good example
of the difficulties involved is that experi-
enced in the Poultry Division of the Uni-
versity of California.

A severe outbreak of cannibalism oc-
curred in chicks from breeder hens on an
experimental diet composed largely of
polished rice and fishmeal. Preliminary
studies indicated that corn aggravated
and oats prevented the condition. A cru-
ical experiment was then set up with
adequate feeding and watering facili-
ties; 3, Devices to keep birds busy;
4, Ruby colored lights so that birds will
not see bloody parts of picked birds; 5,
Antipick salves which taste unpleasant
to the birds.

Management Factors

Many management factors have been
alleged to play important roles in canni-
balism—among them, overcrowding, in-
sufficient feeding and watering facilities,
and keeping the birds on wire floors. Yet,
when all managemental factors alleged to
promote cannibalism are combined in an
effort to produce cannibalism, failure
frequently results, rendering uncertain
the role that is played by management of
the birds.

Genetic Factors

It has been observed that lots of birds
from different hatcheries on the same feed
and under the same management may all
be free from cannibalism except perhaps
for one pen. This points to the involve-
ment of a genetic factor in cannibalism.
The ration of the breeder hens may play
a role here and the problem may still be
nutritional. Breed and strain differences
allegedly exist. It is not certain whether
the tendency is to cannibalize or to be a
ready victim.

Nutritional Preventatives

The most logical nutritional preventa-
tive measure which has been suggested is
the feeding of the most complete diet that
is possible, so that if there are nutritional
factors required to prevent cannibalism
it would make their chance inclusion most
possible.

There are more specific nutritional
recommendations: among them the feed-
ing of manganese; extra salt; fresh
greens; and various types of fiber such
as those of wheat bran, dehydrated alfalfa
and oat hulls. None of these nutritional
measures has yielded consistent results in
entirely eliminating cannibalism.

Managamental Preventatives

Among the managemental recommenda-
tions for combating cannibalism are:
1, Prevention of overcrowding; 2, Pro-
vision of adequate feeding and watering
facilities; 3, Devices to keep birds busy;
4, Ruby colored lights so that birds will
not see bloody parts of picked birds; 5,
Antipick salves which taste unpleasant
to the birds.

Mechanical Antipick Devices

Many mechanical devices for the pre-
vention of picking have been recom-
ended. Some prevent the bird from
tpicking, except downward. Others are
blinders which prevent birds from seeing
straight ahead. Red plastic blinders have
been developed which make everything
in front of the bird appear red, but the
objects to the side are unaffected. These
mechanical devices have been used more
or less successfully in various places.

Debeaking

This is the surest means of controlling
cannibalism. The procedure is to remove
a portion—about one half—of the upper
beak by means of a heated knife or iron
which cauterizes the tissue and prevents
bleeding. When about one half of the
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No pre-emergence spraying or cultivation was used in the plots of this experiment previous to the use of 2,4-D. The weeds were purposely allowed to attain considerable size and were therefore hard to kill.

**Effect in Weeds**

Water grass was not killed at all by the 2,4-D. Rough pigweed and tumbling pigweed required three pounds per acre of 2,4-D for a satisfactory kill. All the other weeds present were killed satisfactorily by the one- or two-pound applications.

It would seem as though a pre-emergence treatment with a fortified oil emulsion, or one early shallow cultivation, followed by a one pound per acre application of 2,4-D sprayed at the base of the plants when they are a foot high would be an effective procedure for weed control in sweet corn.

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**CORN**

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The selective action of 2,4-D is a relative matter depending on several factors: amount of 2,4-D used, weed species present, age of sweet corn, growth conditions such as temperature and rainfall previous to application, and rainfall and irrigation following application of 2,4-D. A disregard of these factors involved can bring about injury to the crop plants or a poor kill of the weeds, or both.