Biosecurity

Biosecurity is a critical component of a successful pastured poultry farm. The lack of biosecurity could lead to devastating consequences such as decreased production and even the death of flock members. The goal of biosecurity is to reduce the risk of sickness. Biosecurity practices will help keep poultry and the facilities safe from transmission of infectious diseases, parasites and pests.

Pathogens

Biological agents that cause disease or illness are considered pathogens. Certain pathogens have been known to cause diseases of economic importance to U.S. poultry industries. Pathogens that present potential risks to the health of flocks include some viruses, bacteria, and parasites. Some of these pathogens may be difficult to eradicate from both the animals and the production facilities once they have been introduced or have gained a foothold in the environment.

How Are They Transferred?

Pathogens can be transferred to new farms or birds via transport on a variety of objects. Manure, respiratory secretions, urine, feathers, fur and skin are examples of animal waste that can contain high concentrations of pathogens. Pathogens can be spread through droplets (such as sneezing and coughing), direct contact, contaminated food, contaminated water and body fluids. Pathogens can survive for a certain period of time in soil and on vegetation, and can be tracked onto a farm via visitor’s vehicles, shoes, clothing, and sometimes in the human nose.

Who is a Threat?

Different types of visitors pose different levels of risk.

- Visitors that do not come in contact with poultry or farms are considered low risk visitors.
- Visitors that visit farms but do not come in direct contact with animals are considered to be medium risk.
- People who come in direct contact with poultry are considered high risk visitors.

Biosecurity Practices

The number one most effective way to prevent the spread of disease is to prevent the introduction of disease to the flock and poultry facilities. The best way to prevent introduction of disease is by successfully controlling traffic allowed on the farm. When visitors come to a pastured poultry facility, the following practices should be enforced:

- All vehicles should be cleaned and disinfected before entering premises.
- Clearly understood traffic patterns should be present for visitors to follow.
- Clearly understood signs should be posted to inform visitors of areas that are permitted for outside human traffic.
- Sturdy locks and secure fencing should be applied to all areas where outside human traffic is not permitted.

Below are some examples of easy to understand signs:
Types and Material of signs

Different signs can be appropriate for different facilities and situations. The main types of safety signs include:

- Danger
- Warning
- Notice
- Restricted Area
- General safety
- Caution

When choosing the material to use to make a sign, the flock owner should consider durability. Choosing a durable material can reduce the number of times signs need to be replaced. Signs that are outside should be able to withstand:

- Wind
- Cold
- Rain
- Chemicals
- Heat
- UV light

Sign Color

The color of the signs is important not only because of visibility, but also because of the effect a certain color may have on neighbors of pastured poultry. Pastured poultry owners that live in close proximity of other people should be aware of the response others may have to their signs. Some signs may cause neighbors to be alarmed and fearful that their lives or health is in danger because of the color of the signs they see. It is important to keep in mind that it is more important for visitors to see the posted signs than anyone else. Red, blue, yellow and green are the four primary psychological colors.

Purchasing or Making Signs

Some pastured poultry owners may be able to make their own signs. For those who are unable to make their own, signs can be purchased at relatively inexpensive costs. The following is a table of online companies that make signs and their prices:

<table>
<thead>
<tr>
<th>Company</th>
<th>Size (inches)</th>
<th>Cost of one Aluminum Safety Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildasign.com</td>
<td>14 x 20</td>
<td>$33.65</td>
</tr>
<tr>
<td>Safetysign.com</td>
<td>14”x 10</td>
<td>$17.45</td>
</tr>
<tr>
<td>Compliancesigns.com</td>
<td>24”x 28</td>
<td>$32.00</td>
</tr>
<tr>
<td>Mysafetysign.com</td>
<td>18 x 24</td>
<td>$33.45</td>
</tr>
</tbody>
</table>

(For some companies cost decreases as quantity increases)

Locks

Locks are a great way to keep unwanted guests from entering non-permitted areas in or around a pastured poultry facility. Locks should be placed on all entry points on the premises. Locks should be sturdy and not easily broken by visitors. The design of the lock is more important than how it operates. Locks are one of many physical tools used to restrict access.

Many different locks exist including American Disability Act compliant (ADA) locks, built-in combination locks, adjustable locking cables and padlocks. The most secure lock, according to MasterLock, is the hidden shackle padlock. This is due to the shape of the lock. This lock cannot be cut with bolt cutters and cannot be pried open.

Below are some examples of locks manufactured by MasterLock and their prices:

<table>
<thead>
<tr>
<th>Lock</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built in Combination Locks</td>
<td>$24.74</td>
</tr>
<tr>
<td>Hidden Shackle Padlock</td>
<td>$31.92</td>
</tr>
<tr>
<td>ADA Locks</td>
<td>$32.21</td>
</tr>
<tr>
<td>Adjustable Locking Cables</td>
<td>$28.70</td>
</tr>
<tr>
<td>Combination Padlocks</td>
<td>$12.53</td>
</tr>
</tbody>
</table>

The most common material used for safety signs is aluminum. However, some other materials used include: plywood, cardstock, alumacore and corrugated plastic. Reflective aluminum has the best visibility of all the materials. Below is a table comparing the outdoor life, chemical resistance and heat maximum for different material:

<table>
<thead>
<tr>
<th>Material</th>
<th>Outdoor life (years)</th>
<th>Chemical Resistance</th>
<th>Heat Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflective Aluminum</td>
<td>10</td>
<td>Yes</td>
<td>168 °F</td>
</tr>
<tr>
<td>Aluminum</td>
<td>10</td>
<td>Yes</td>
<td>168 °F</td>
</tr>
<tr>
<td>Plastic</td>
<td>2</td>
<td>Yes</td>
<td>168 °F</td>
</tr>
<tr>
<td>Laminated Vinyl</td>
<td>5</td>
<td>Yes</td>
<td>140 °F</td>
</tr>
</tbody>
</table>

* One (1) is the worst and ten (10) is the best for outdoor life. (MySafetySign.com, 2012)
References


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