Cellulitis In Broiler Chickens

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WHAT IS CELLULITIS?
Cellulitis in broiler chickens is only detectable at slaughter, once the carcass has been plucked and scalded. The inspector will first notice an area of yellow and thickened skin on the lower abdomen. Closer examination of the area will reveal a plaque of pus underneath the skin, and underlying muscles will often display small hemorrhages. The degree of inflammation and the size of the lesion vary tremendously from one carcass to another, with some showing chronic, localized and well-demarcated pea-size lesions, and others exhibiting an extensive seropurulent inflammation covering most of the abdomen and breast muscles. Although in some cases the carcass might be trimmed, it is most often discarded. Indeed, since the E. coli bacteria is isolated from these lesions, the risk of carcass contamination is considered a public health concern by the Canadian Food Inspection Agency; hence the condemnation of the whole carcass.

EPIDEMIOLOGICAL TRENDS AND ECONOMICAL LOSSES RELATED TO CELLULITIS
Although the condition was first recognized in 1981 by Agriculture Canada’s meat hygiene directives, the term cellulitis did not show up on condemnation records until 1986. Cellulitis ranked 10th among all condemnation categories in Canada that year, with only 160,405 chickens (0.048% of all slaughtered broilers) condemned for that reason. Ten years later, more than 2.6 million Canadian chickens affected with cellulitis (0.56% of total slaughter) did not pass inspection – a 12-fold increase in frequency. Cellulitis is now the first cause of condemnation in broiler chickens in Canada, which makes it a source of major financial losses. Why has the frequency of cellulitis increased so much over the past decade? In order to answer this question, it is necessary to understand how cellulitis develops.

PATHOGENESIS OF CELLULITIS
Most studies have shown that cellulitis is caused by a skin scratch that becomes infected. This is an infection occurring late in the life of the broiler and is not associated with a poorly closed navel in a chick, which is an outdated theory. The modern broiler chicken has a very prominent abdomen that is more exposed to scratches. Furthermore, modern genetics have brought to the North American market a slow-feathering chicken, which decreases its protection from scratches. Other risk factors increase the chance of scratches, and the level of bacterial contamination in the barn will affect scratch contamination, increasing the risk of cellulitis in a flock. Research has already identified various risk factors associated with cellulitis, as well as the time necessary for lesions to develop.

RISK FACTORS ASSOCIATED WITH CELLULITIS
 Feather coverage
In one study, feathering at 28 days was the most significant risk factor associated with cellulitis, with all high-prevalence cellulitis flocks exhibiting poor feathering i.e., down feathers on the head and neck areas and naked shoulders. Indeed, poor feathering increases skin vulnerability to mechanical aggressors, thus facilitating bacterial invasion of the subcutaneous tissues. Interestingly, broilers kept at higher barn temperatures between days 17 and 35 showed more likelihood of developing cellulitis. This factor is likely related to feather coverage, since birds kept at higher temperatures tend to feather less rapidly than those kept at lower temperatures, thus leaving the skin unprotected for a longer period. It must be kept in mind that too low of an environmental temperature will increase the risk of ascites. It is therefore important to exert caution with regards to excessively low temperatures. For instance, a gradual temperature decrease from 31-33°C to 26-27°C (at bird level), between day 1 and day 21, is suggested. Note that the barn temperature should never go below 21°C.

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Cellulitis In Broiler Chickens continued…

Density
Higher feeder, drinker and pen densities (>27 kg/m²) are also significant risk factors. It may be that increased densities lead to a higher incidence of scratches and feather breakage. This would also explain why nervous flocks are more at risk for a higher prevalence of cellulitis, since sudden mass movements in the chicken pen favour such skin and feather damage.

Bacterial contamination of the environment
Caked litter and higher litter humidity during the last weeks of the growout are also associated with a higher prevalence of cellulitis, whereas flocks with nipple drinkers were less at risk of developing cellulitis. Since humid litter is an ideal environment for bacterial multiplication, any measure decreasing the bacterial load in the environment should have a positive impact on the incidence of cellulitis. This also explains why it has been shown that chicken barns disinfected prior to chick arrival had a lower prevalence of cellulitis. For the same reason, a downtime period longer than 15 days has also been related to a decreased prevalence.

TIME FOR THE CELLULITIS LESION TO DEVELOP
Various experimental infections have been able to reproduce cellulitis by injecting, scratching, or swabbing the skin with the E. coli bacteria. Lesions occur very quickly after infection. The chicken body temperature is around 40-41°C, which not only creates a haven for bacterial multiplication, but also causes far more rapid inflammatory reactions. This explains why, with the help of medical thermography, we demonstrated signs of inflammation occurring as early as one day post-infection, a peak of inflammation two days post-infection, and a gradual regression afterward. Because very few subcutaneous lesions were evident six days after infection, we think that most scratches occurring in the weeks prior to slaughter do have time to heal and resolve.

CONCLUSIONS
The increased incidence of cellulitis over the past several years is probably related to various factors. First is the increased use of a slow-feathering, high-yield broiler with a prominent abdomen, coupled with the higher barn density

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Improved Feeding Client Service

WHY NETWORK?
Rushed for time, short on cash flow – it’s often too easy to pass up the next poultry conference or meeting. Consider these good reasons for maintaining your investment in networking:

- To exchange information and good ideas.
- To prospect for new clients.
- To work together with professionals on problem-solving.
- To find possible employees – for you or for clients.
- To get good advice.
- To get encouragement in tough times.
- To get hands-on access to the newest products, processes and technology.
- To follow up on industry rumours.
- To blow off steam.
- To get a little perspective on industry trends.
- To research.
- To check out new regulations.
- To find ways to work with others in the field to share costs of services.
Winning new clients will take more than technical knowledge – a given in today’s competitive marketplace. Clients these days are looking for more than what you know; they want to know how you relate and empathize with their business. They are looking for that rare professional who has both technical skills and a sincere desire to be helpful and work through problems together – in other words, someone with the ability to enter the producer’s world and see it through his eyes.

As a poultry industry consultant looking for new prospects, the key to success boils down to a simple rule: put yourself in the grower’s shoes. Think, anticipate, react as your potential client would.

Like entering into any other life relationship, hiring a professional is an act of faith. As a professional seeking to sell your services, your task is to overcome growers’ natural reluctance to discuss the business – and mistrust of slick professionals – and win their trust and confidence.

There has to be a high level of trust. By hiring anyone, a producer is taking a certain level of risk – putting his affairs in the hands of someone else and giving up some degree of control. Whoever gets hired will be privy to proprietary, potentially damaging information about the business. The prospect feels exposed. As a professional going in to pitch your services, there’s also a certain level of insecurity and skepticism to overcome with potential clients.

While the client’s problem may be simple, there’s the perception that professionals will make it complex by inundating the prospect with jargon, simply to get the job.

How you conduct yourself during that critical first face-to-face encounter, and the attention you pay to seemingly little things will speak volumes more than stacks of printed résumés and literature. The vast majority of professional contracts are awarded before the formal proposal stage.

Perfecting Your Pitch

So you’ve honed your poultry skills
– Now how about those people skills?

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Your prospect will be looking for clues during that first interview to form perceptions and impressions about you. Details like manner of speech and choice of phrases indicate how you will deal with the client in the future.

Excellent capabilities are essential to help you make the final cut, but it is other intangibles that get you hired. A client no longer asks “Can you do it?” but “Do I want to work with you?” Now’s the time to sell yourself.

That said, here are some practical tips to help you take the right approach when you pitch your services. Remember, you are entering into a relationship as well as a business deal. Your task is to earn the producer’s trust and confidence.

LISTEN
Talk is cheap. Don’t stick to your prepared spiel at all costs. Talking about what you can do for the client will go infinitely farther than talking about what you have done for other clients. The only way to influence the prospect is to find out what he wants and tell him how to get it. Respond and react to questions. How you respond will say more about you than what you say. Let the client interrupt. Don’t say “We’ll get to that.” Your meeting should be a discussion, not a lecture. The key talent in good selling is getting clients to reveal problems, needs, wants and concerns.

ASK
Questions indicate interest and raise the prospect’s comfort level. Preaching to the client about his own industry comes across as arrogant, patronizing and pompous – the very stereotype you’re trying to dispel. The key talent in good selling is getting the client to reveal problems, needs, wants and concerns. Some good questions: “What don’t you have time for?” “How valuable would it be if...?” “Some of our other clients who do things the way you do have had to contend with the following issues as a result. What have you done to deal with those consequences?”

DO YOUR HOMEWORK
There’s nothing worse than a professional who spends the first 15 minutes asking basic questions about the prospect’s business. Show some evidence of knowledge of the client’s business, including the competitor’s business. Come with material that has been prepared specifically for the client, not generic handouts.

Educate. Help the client understand industry dynamics and how they affect the grower’s own business. Ask the client how things are done now, and suggest some constructive improvements. Tell him something he doesn’t know. If the grower walks away from the meeting saying, “That was interesting. I hadn’t thought of it that way before,” you’ve won.

EASY DOES IT
Don’t wrap up with a hard-sell push to close the deal. Leave the decision open-ended – with the client, where it should be. Suggest the client attend a nutrition/health seminar, or meet with another company rep.

The single most important talent in selling professional services is the ability to understand the purchasing process from the client’s perspective. The better you can learn to think like a client, the easier it will be to do and say the right things to get hired.