Europe's E. Coli Outbreak — Could It Happen Here?

By LINDSEY COBLENTZ, Associate Editor, Food Manufacturing

Food Manufacturing spoke with Dr. Scott Hurd of Iowa State University about Europe’s deadly E. coli outbreak and how it could affect U.S. food processors and consumers.

Q: How does the current E. coli outbreak in Europe compare with similar U.S. outbreaks that have occurred in the past?

A: This is not really comparable to U.S. outbreaks — there have already been twice as many people affected when compared to the largest U.S. outbreak (which was the Jack in the Box outbreak in 1993). The impact is off the charts, particularly the number of cases of what they call hemolytic uremic syndrome (HUS), which is where the kidney is damaged; in other words you have blood in the urine — as well as in mortality rates. The other thing that’s not comparable is that meat is not the reason for the E. coli contamination — this seems to be some type of produce.

Q: Why is it so hard to determine the source of this particular outbreak?

A: It is a challenge when we are dealing with fresh produce as the carrier of the bacteria, because there is not a good tracking system here in the U.S. or overseas to identify what caused contamination in the first place. There was an instance in the U.S. a couple years ago with salmonella contamination where initial reports indicated the source was tomatoes, but it ended up that peppers were finally blamed as the culprit.

Q: What makes this particular form of E. coli so dangerous?

A: E. coli is bacteria that every person has in their GI tract. What’s causing the problem in this situation is that some strains of E. coli can make people severely ill when introduced into the body from a food source. These toxic E. coli produce a poison that starts growing in the body and releases a toxin. Most of what really causes the illness is damage to the kidney as a result of this toxin.

This strain is pretty severe in its ability to cause illness in people — particularly HUS. HUS is a disorder that can cause kidney damage and can even result in death — as we have seen with at least 25 cases (as of Wednesday, June 8, 2011).

Q: Is there any danger of this strain of E. coli spreading to the U.S.?

A: It is possible. Bacteria tend to move pretty easily around the world, so it's possible that it could spread to the U.S. I can't say whether it's a high or low possibility at this point. I think this bug is surprising everybody. To protect oneself, consumers need to be cautious about eating fruits and vegetables in general, since they're eaten raw. Thorough washing is essential, particularly with leafy greens. I don't like to be alarmist, but the impacts of this outbreak are off the charts. In any case, if you cook your fruits or vegetables, you don't have to worry, because the bacteria can't withstand the heat.

Q: When it comes to using produce as an ingredient, what precautions should food processors take to prevent E. coli contamination in their products?

A: Food processors:

1. Should always practice good HACCP procedures.
2. Need to know the source of the produce.
3. Have to understand whether there has been soil or manure exposure to the fresh produce during its life.

For more information, please visit www.foodmanufacturing.com [1].

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