

Ryan Instruments

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MARKET: Egg production.

CUSTOMER: Cal-Maine Foods, Buhler, Kansas, distributes about 4.2 million eggs each week throughout the continental United States.

PROBLEM: Cal-Maine needed to improve chicken house temperature management, in order to cut feed costs and maintain egg quality. Hens perform best at steady temperatures between 80-82° Fahrenheit. At lower temperatures, the hens will eat more feed to maintain body heat, thus driving up production costs. At higher temperatures, the hens drink too much water and produce thin-shelled eggs. The quality of Cal-Maine's chicken house management varied greatly: one contractor, for example, allowed house temperatures to fluctuate between 45-90° F in one week.

APPLICATION: Ryan time/temperature monitoring devices (TTMs) measure and record temperatures in each of Cal-Maine's 24 contract chicken houses. The easy-to-read charts allow for easy comparisons of temperature management at the various chicken houses.

BENEFIT: By using Ryan's TTM charts, Cal-Maine is able to identify both exceptional and poor chicken house management. TTM charts are often used to persuade managers to improve ventilation practices at the unheated chicken houses. "We rode one guy's tail about temperature fluctuations, and since then he keeps his temperatures without any variations," says Wayne Goertzen, production manager for Cal-Maine's Buhler center.

CONCLUSION: Cal-Maine is able to cut feed costs and improve egg quality because the data from Ryan TTM charts is used to persuade chicken house managers to make improvements. "We've used them in all of our contract houses for the past three years," Goertzen says, "We simply tell a contractor that he's keeping his house too cold which, in turn, causes the birds to eat more which, in turn causes our feed and production costs to be higher than they should be. We tell our contractors that if the temperatures vary too much, it affects feed efficiencies. In order to stay competitive, they have to keep the temperatures steady."