

Shoemaker, D. June 27, 2001

From: Dianne Shoemaker <shoemaker3@ag.osu.edu>
To: "Victor Frankenthaler" <Vpf@tamsconsultants.com>
Date: 6/27/01 3:27PM
Subject: Re: nighttime lighting impacts on dairy cattle

DocID 80218

Hello Victor Frankenthaler,

Photoperiods affect lactating and dry (non-lactating) cows in different ways. Lactating cows give more milk when they are exposed to 16 hours of light and 8 hours of darkness. This is why many dairy farms provide supplemental lighting most of the year. Dry cows are just the opposite. In a couple studies, their subsequent lactation was higher when they were exposed to 16 hours of darkness and 8 hours of light. This is problematic in the summer, but supplemental light is not generally provided during the winter.

Attached is a column written about a year ago that includes details such as measurements that define "dark" and "light". How much light actually gets into the barns occupied by the cows and for how long will determine whether there are any adverse impacts from the processes you will be undertaking.

Please let me know if you have further questions. I can probable track down the original studies, if needed.

Sincerely,

Dianne Shoemaker

At 01:01 PM 06/27/2001 -0400, you wrote:

>I am involved in assessing the impacts of a proposed project that would
>involve nighttime river dredging and onshore sediment processing, also at
>night. The project would use nighttime lighting to illuminate some work areas.
>
>The project is located in a dairy farming area. Under what circumstances,
>if any, could the nighttime lighting adversely impact milk production?
>
>Thank you for your assistance.
>
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