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Sent: Friday, July 20, 2018 1:20 PM
To: Coleman, Loren <Loren.Coleman@ARS.USDA.GOV>
Subject: Stakeholder listening sessions

Hello,

I was reviewing the roll up of the 2013 sessions. It appears that many of the issues that were of primary concern for the last session 5 years ago are still significant barriers today. While technology has made several leaps (speaking from a RAS perspective) I am not sure any of the topics under the Salmon field have been adequately resolved, and should still be a focus for the industry and the collaborative support research groups moving forward. Perhaps the most innovative and effective solution for most of these problems is the most extreme. IE take the fish out of the ocean instead of attempting to tame the ocean. I hope to see more focus on the RAS perspectives in this session. Key areas for RAS success still include:

Feed improvements especially in the area of digestibility fecal binding, and nutrient uptake to reduce phosphate and solids.

Off flavor prevention (MIB, geosmin)

improvements in energy and water efficiencies

waste stream revenue, how to foster the development of waste markets.

sexual maturation prevention/delay.

I look forward to listening in.

Best Regards

David Noyes

CTO

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