

## PennState

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## VATERIALS ALLEY



## **Data-based Decision Making in Animal Agriculture**

"By 2020, the total amount of data collected across industries internationally is expected to top 35 zettabytes. Although still growing, big data in agriculture is becoming commonplace because analysis of complex datasets allows us derive previously unknown relationships and make more accurate predictions of the future. Dairy farms are increasing their capabilities of collecting data with the use of RFID, automatic milkers, and other technologies; however, tools to support databased decision making lag significantly behind other industries. Analysis of data collected from commercially available on-farm sensing tools suggests big data may hold the key to numerous

current management challenges. For example, analysis of individual animal data suggest patterns in the ways individuals efficiency respond to nutrient supplies, revealing the need for individualized, data-based feeding strategies. Additionally, analysis of on-farm milk and activity analytics suggests it is possible to detect disease in advance of clinical symptoms. Collectively, these initial investigations support the need for additional work supporting the adoption and automation of data-based decision making in animal agriculture."

Monday, July 23<sup>rd</sup> 2018 3:30-5:00pm

For more information, please email Jennifer Leedy at js1226@psu.edu.