

Artificial Intelligence in Precision Agriculture

Presented by

Dr. Xin (Rex) Sun, Associate Professor | UAS Faculty Fellow
Department of Agricultural and Biosystems Engineering
North Dakota State University

xin.sun@ndsu.edu

Precision Ag Research



Crop



Livestock



Food

Picture source: google image

Precision Ag Research



AI

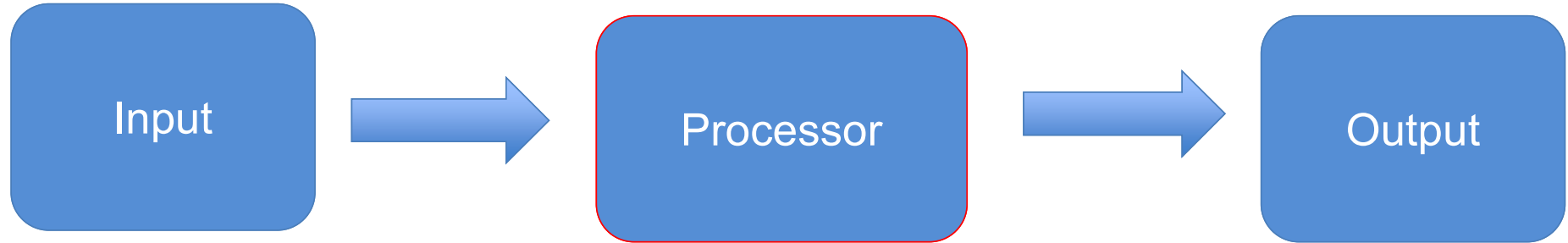


Robotics

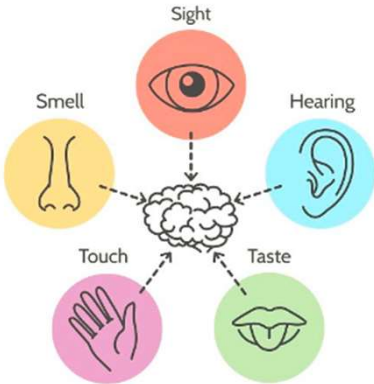
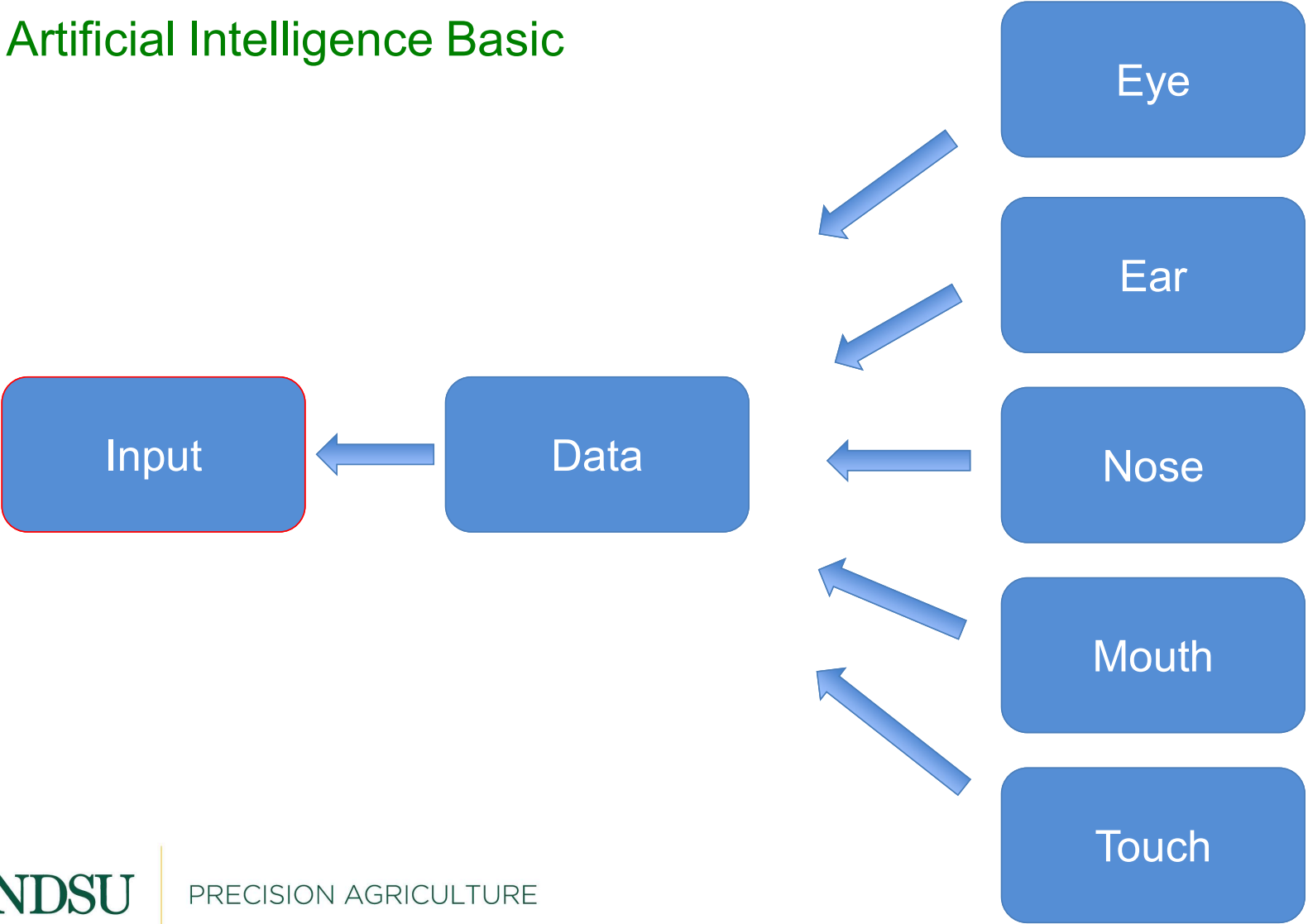


Remote Sensing

Artificial Intelligence Basic



Artificial Intelligence Basic



Crop

AI in Weed Identification

5 Weed Species Recognized by Deep

Learning **AI** Technology.



AI in Weed Identification







Robotics - Weedbot V2



Weed Identification-Robotics Weedbot V2, V3



Robotics V4 – Multifunctional Robotic Platform/Autonomous Vehicle

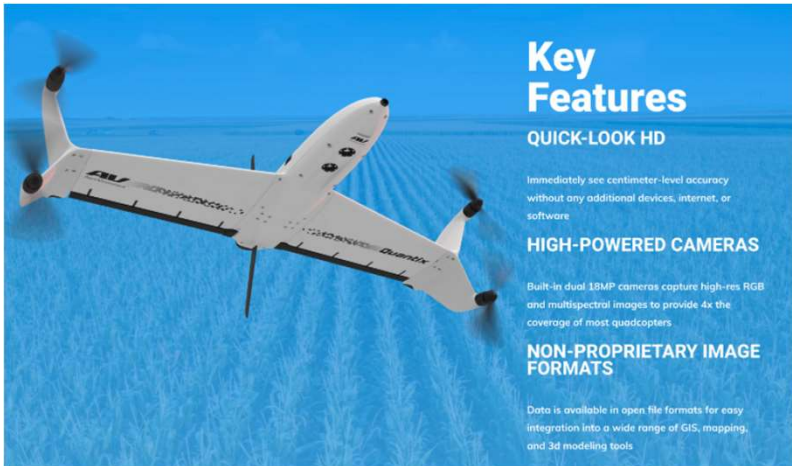


Robot in the Field



Plant Health Monitoring

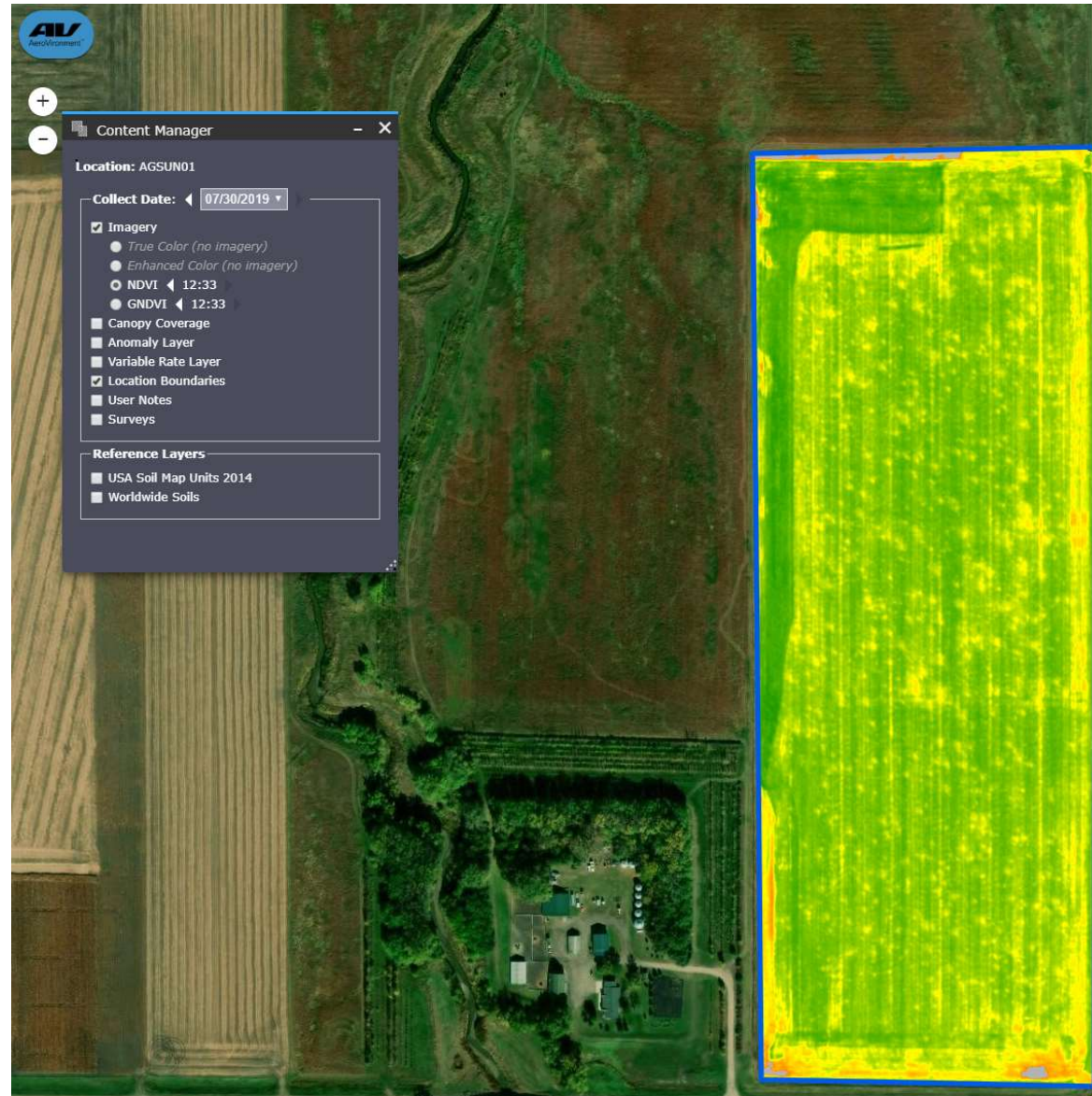
- Normalized Difference Vegetation Index (NDVI) Imagery
- Borup MN
- 55.79 Acres
- Wheat



<https://www.avinc.com/cis/quantix-mapper>

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Livestock

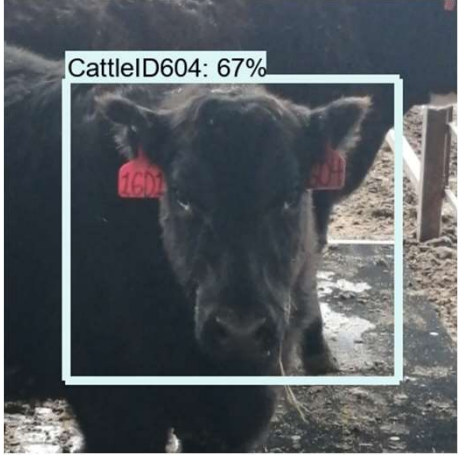
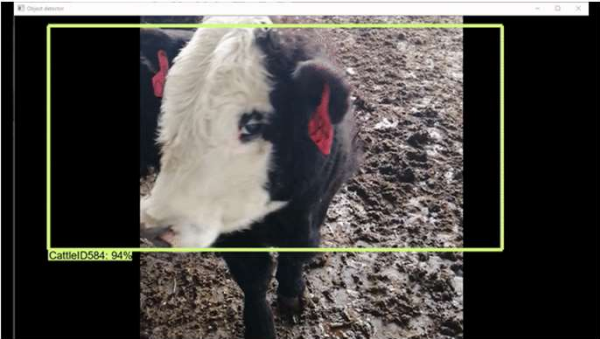
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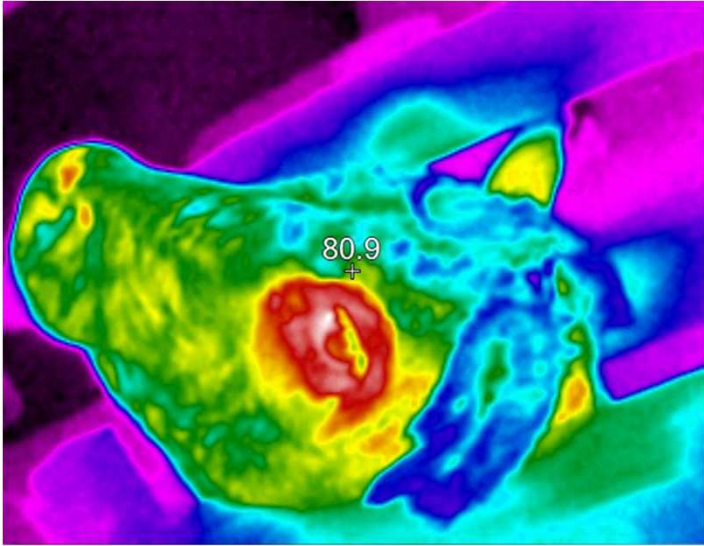
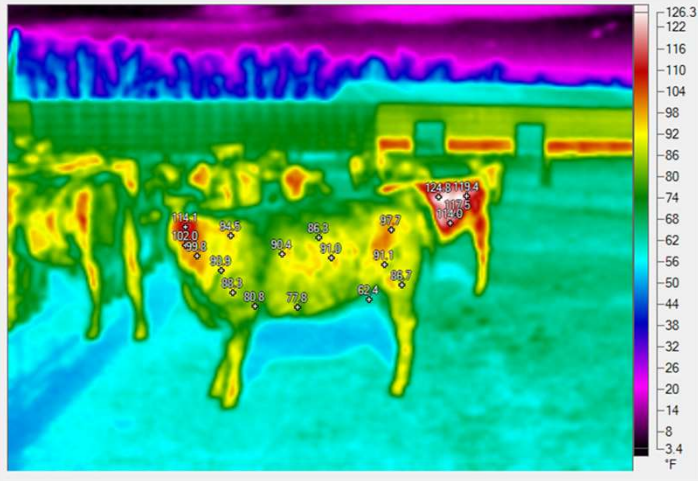
AI in Beef Cattle Face Identification

Beef **Cattle** Tag ID Information Recognized

by Deep Learning **AI** Technology.



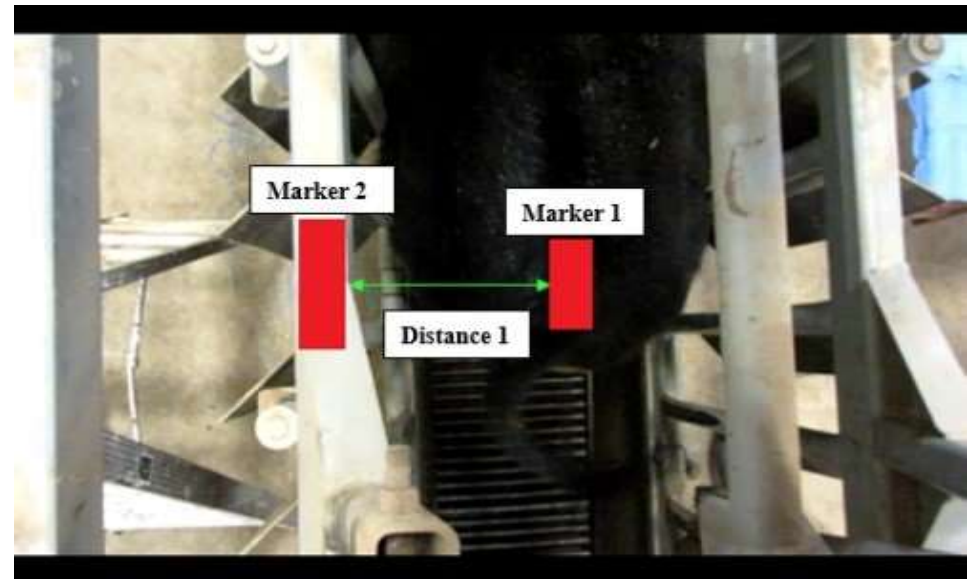
Predict Early Stages of Respiratory Disease in Beef Cattle using Thermal Imaging Technology



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Beef Temperament Prediction using Video Imaging Technology

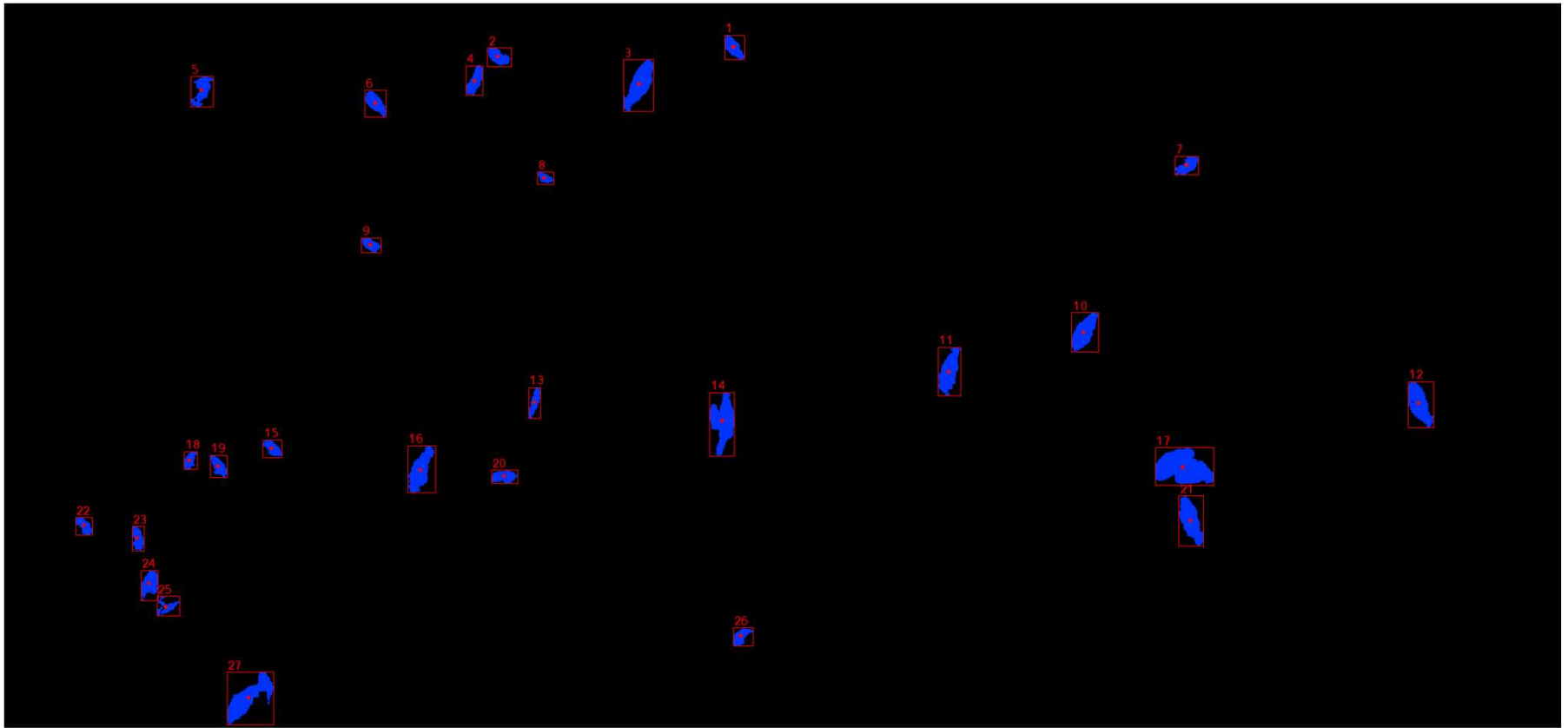


Beef Cattle Inventory Research using UAV System



150 Feet

Beef Cattle Inventory Research using UAV System



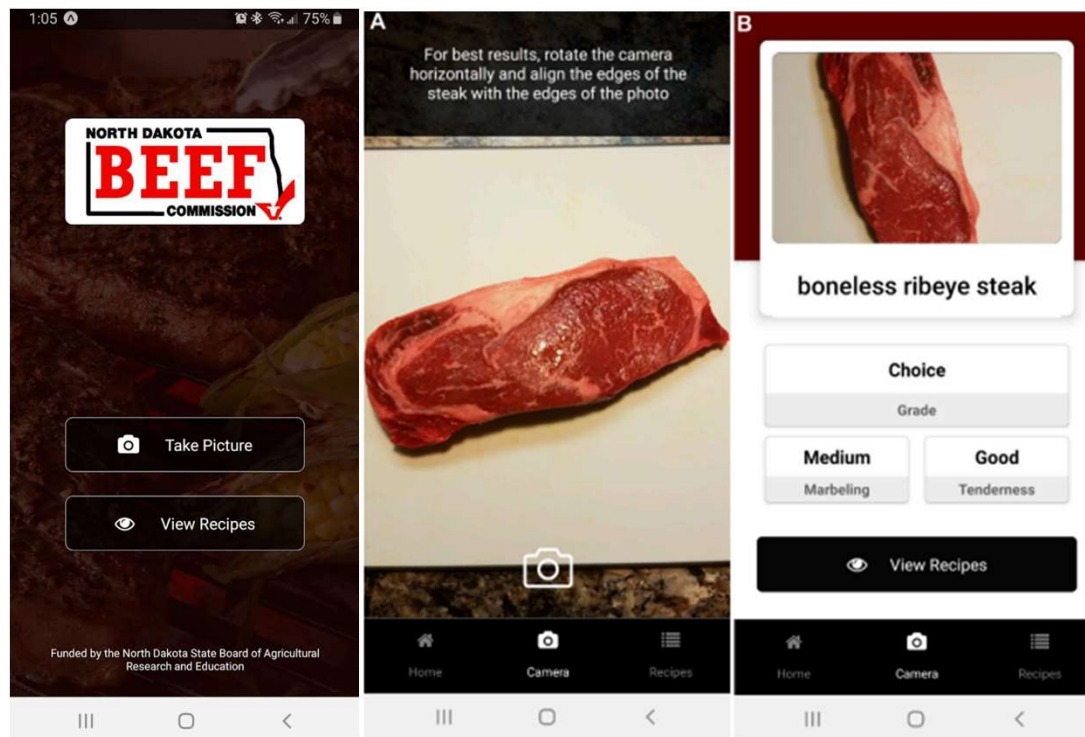
150 Feet

Food

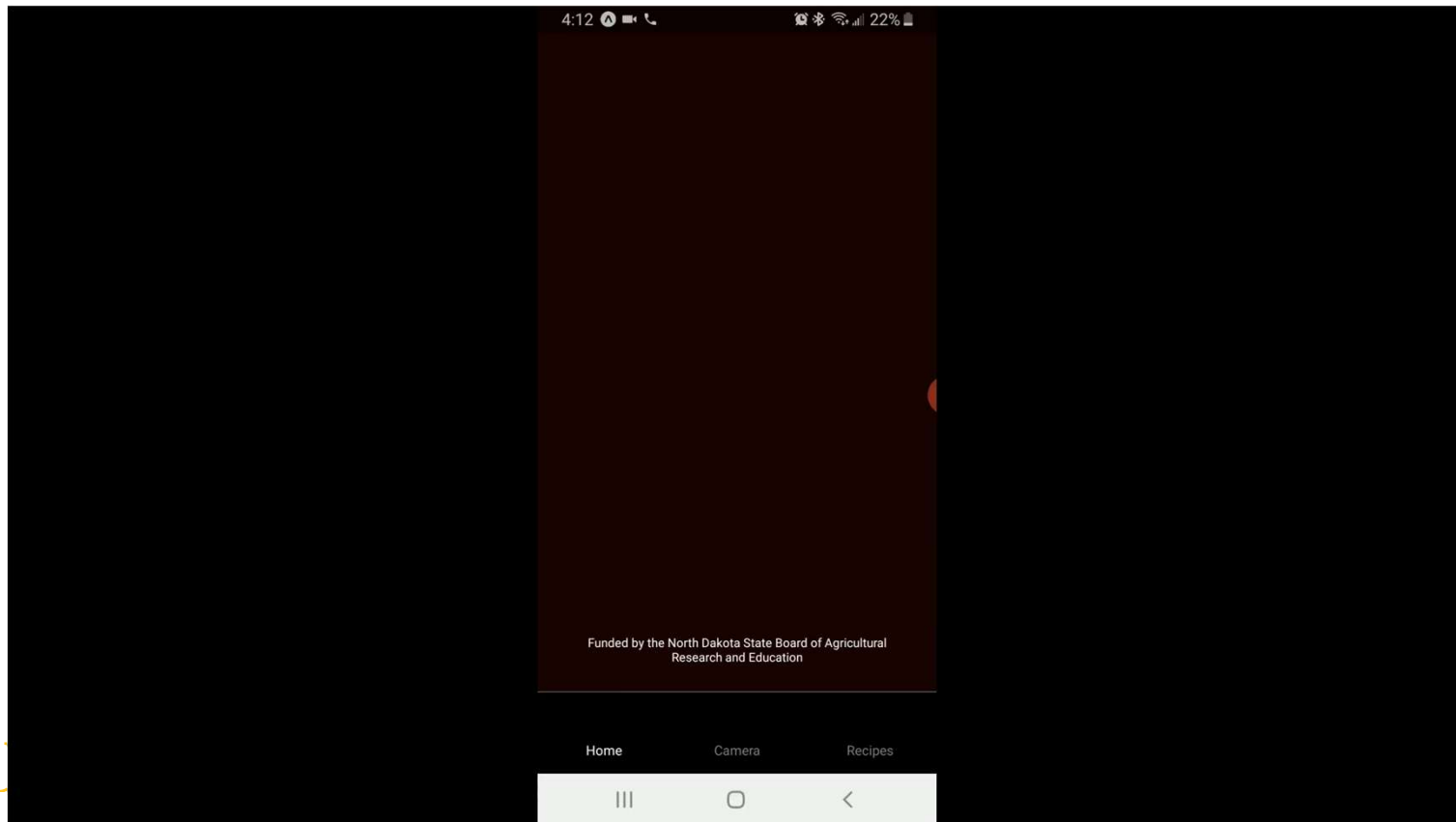
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Assessment of Consumer Purchasing and Education of Beef Quality Attributes and Cuts using Mobile Applications (Android and iPhone operation system: IOS)



Assessment of Consumer Purchasing and Education of Beef Quality Attributes and Cuts using Mobile Applications (Android and iPhone operation system: IOS)



NDSU Precision Ag Team

