Novel NIR Predictions of the Nutritive Value of Cereal and Protein Meals Across Animal Species

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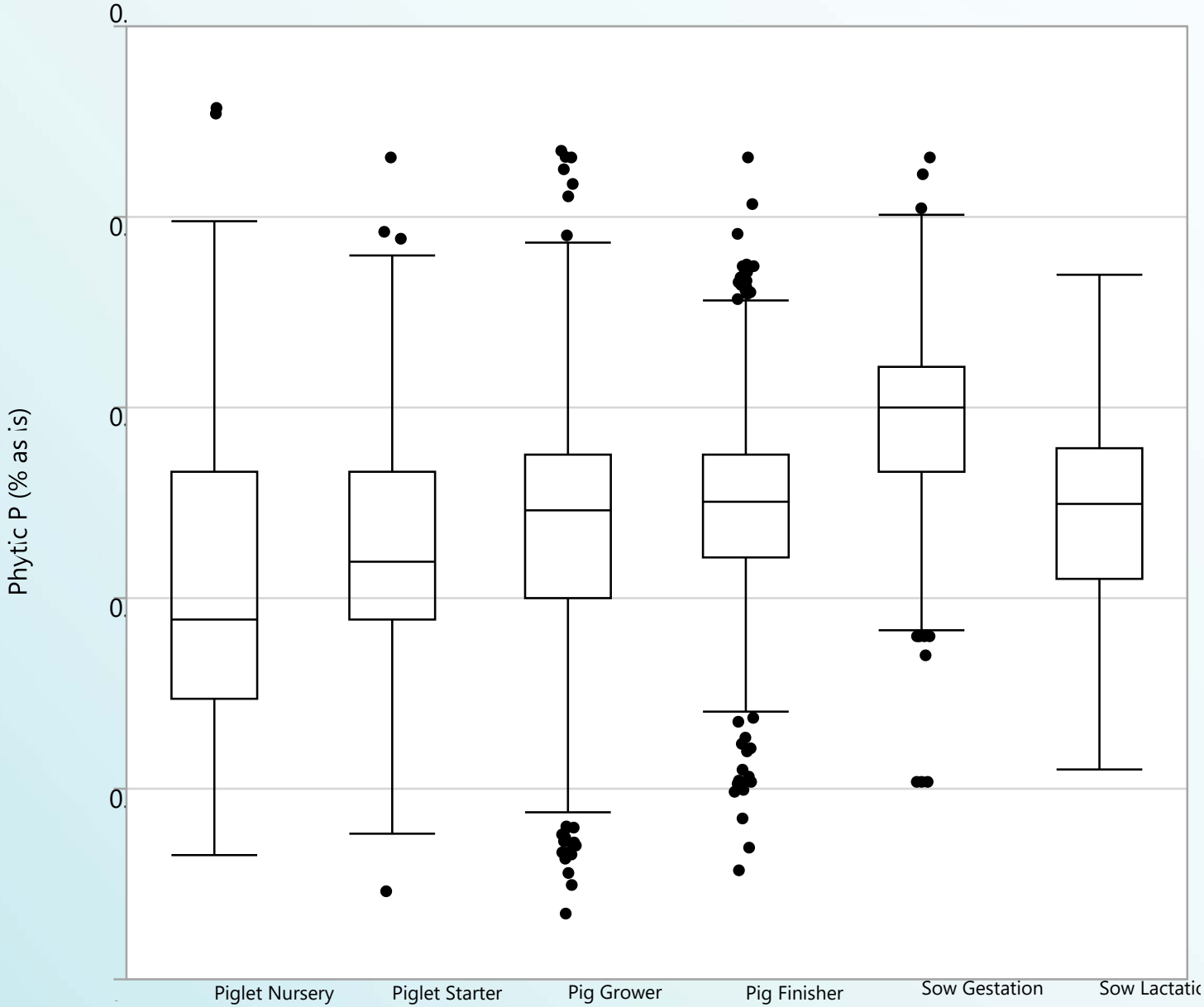
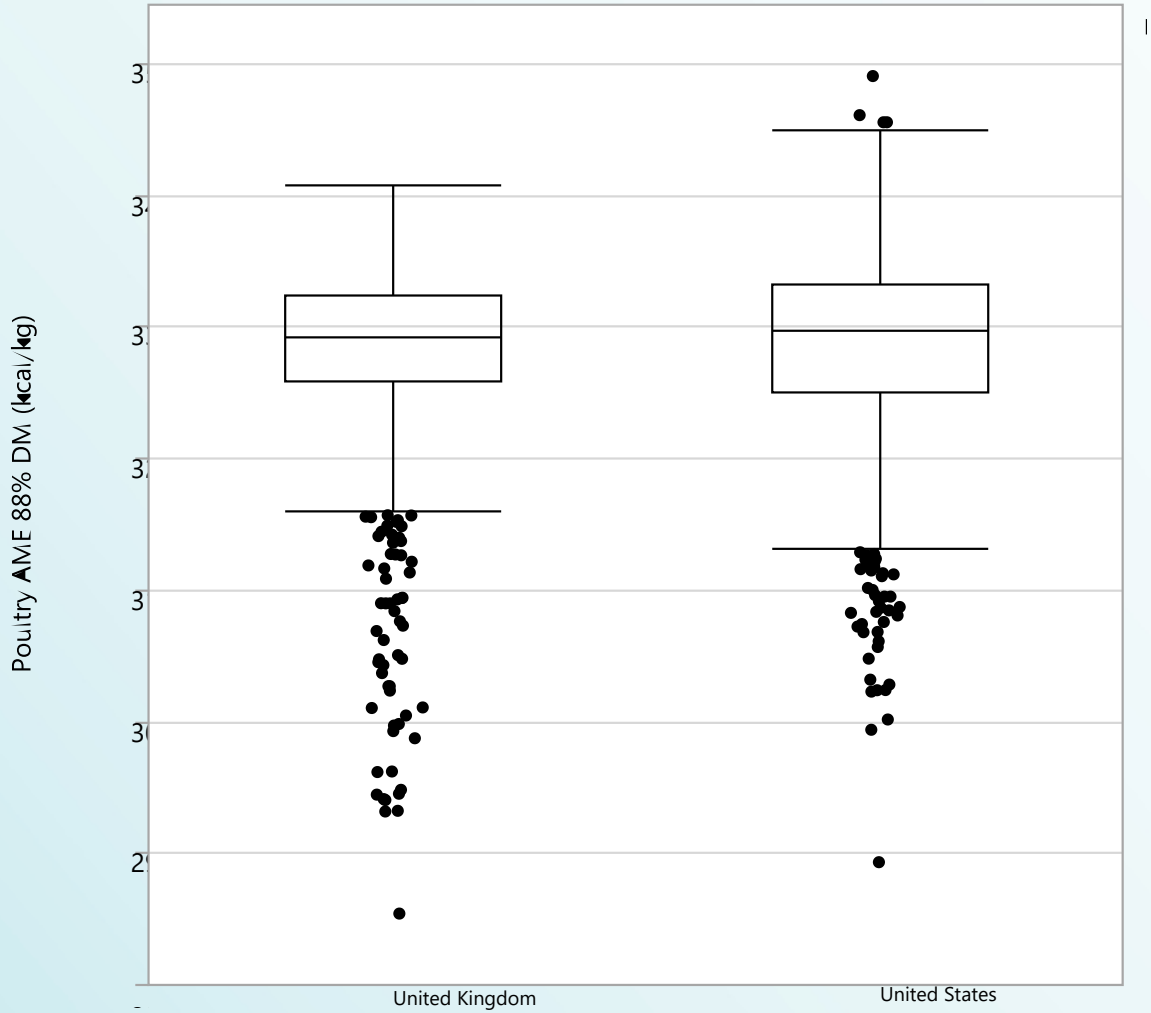
Extraordinary science brought to life

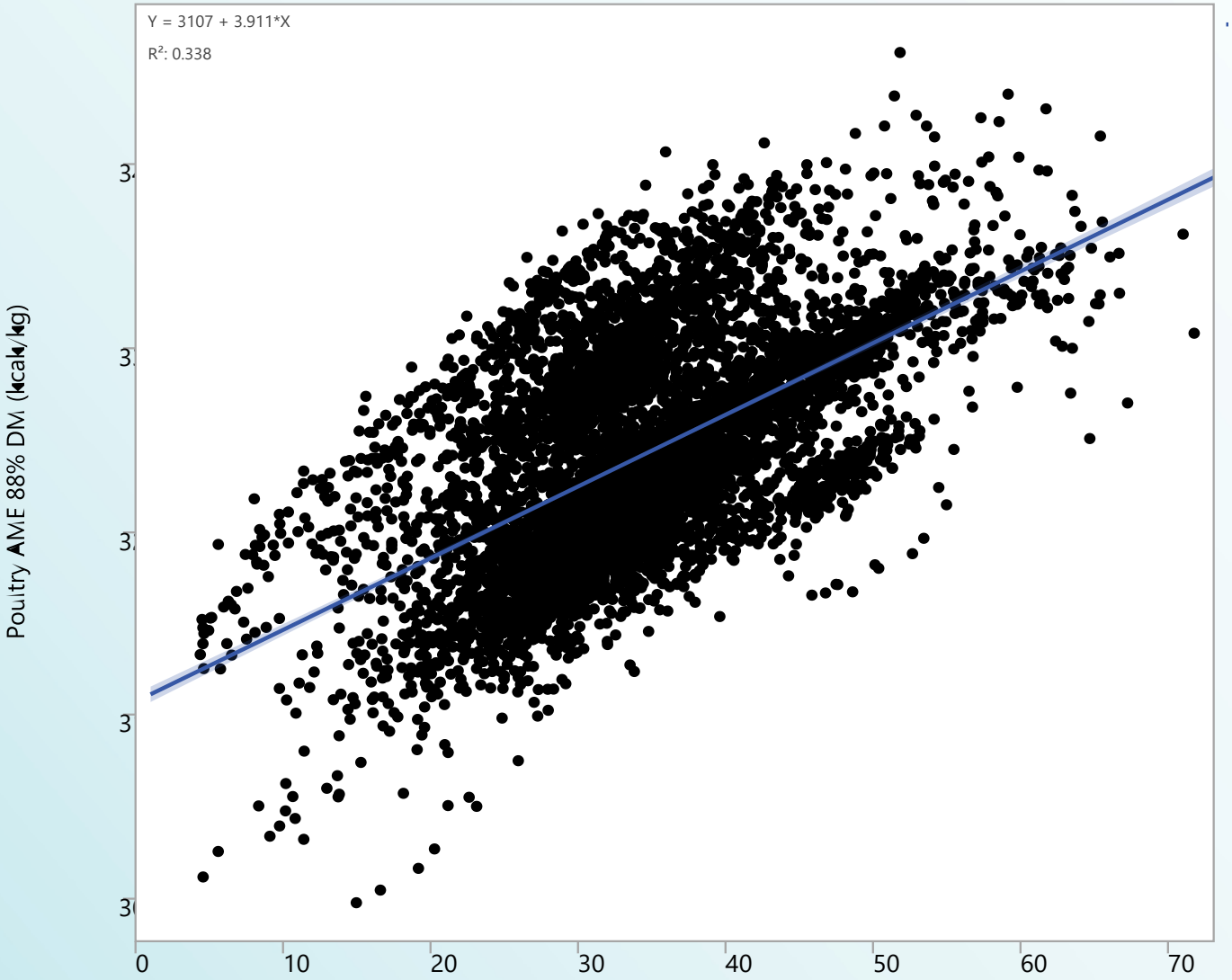
ONLINE NIR CALIBRATIONS


Phytic P (% as is)
0.
0.
0.
0.
Piglet Nursery
Piglet Starter
Pig Grower
Pig Finisher
Sow Gestation
Sow Lactatic

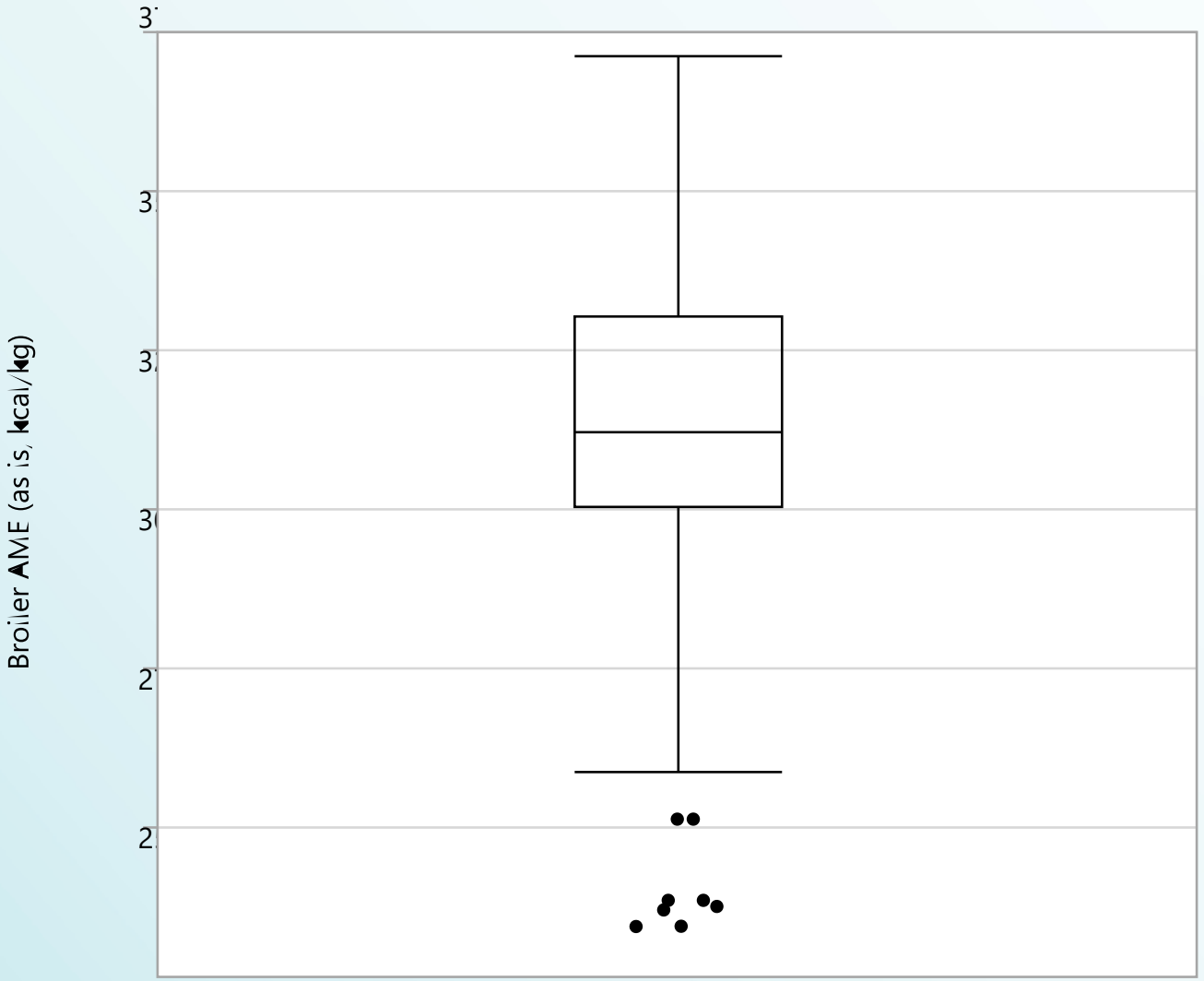
MAIZE POULTRY AME (KCAL/KG, 88% DM)



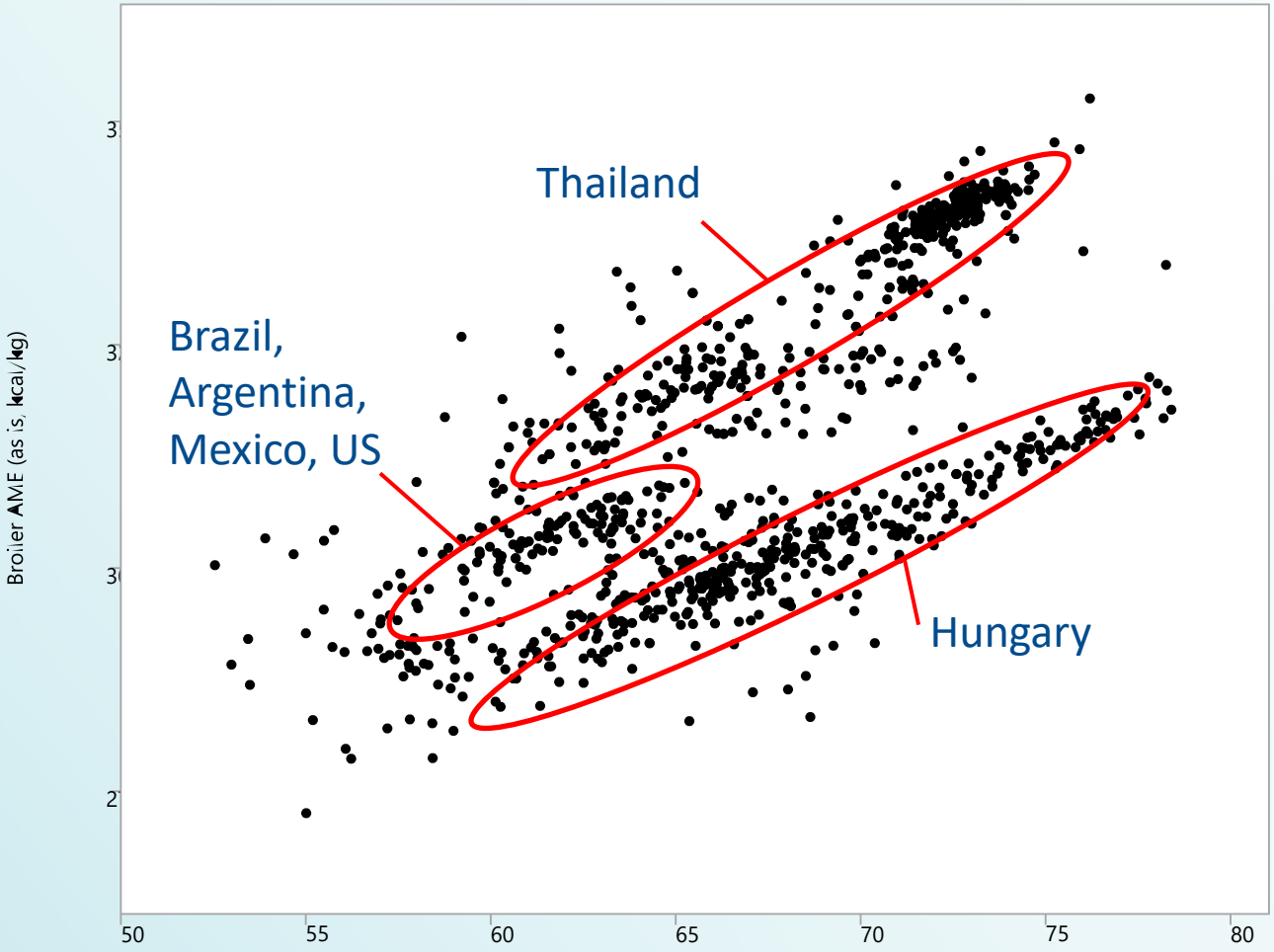
INFLUENCE OF PROTEIN SOLUBILITY INDEX ON MAIZE AME



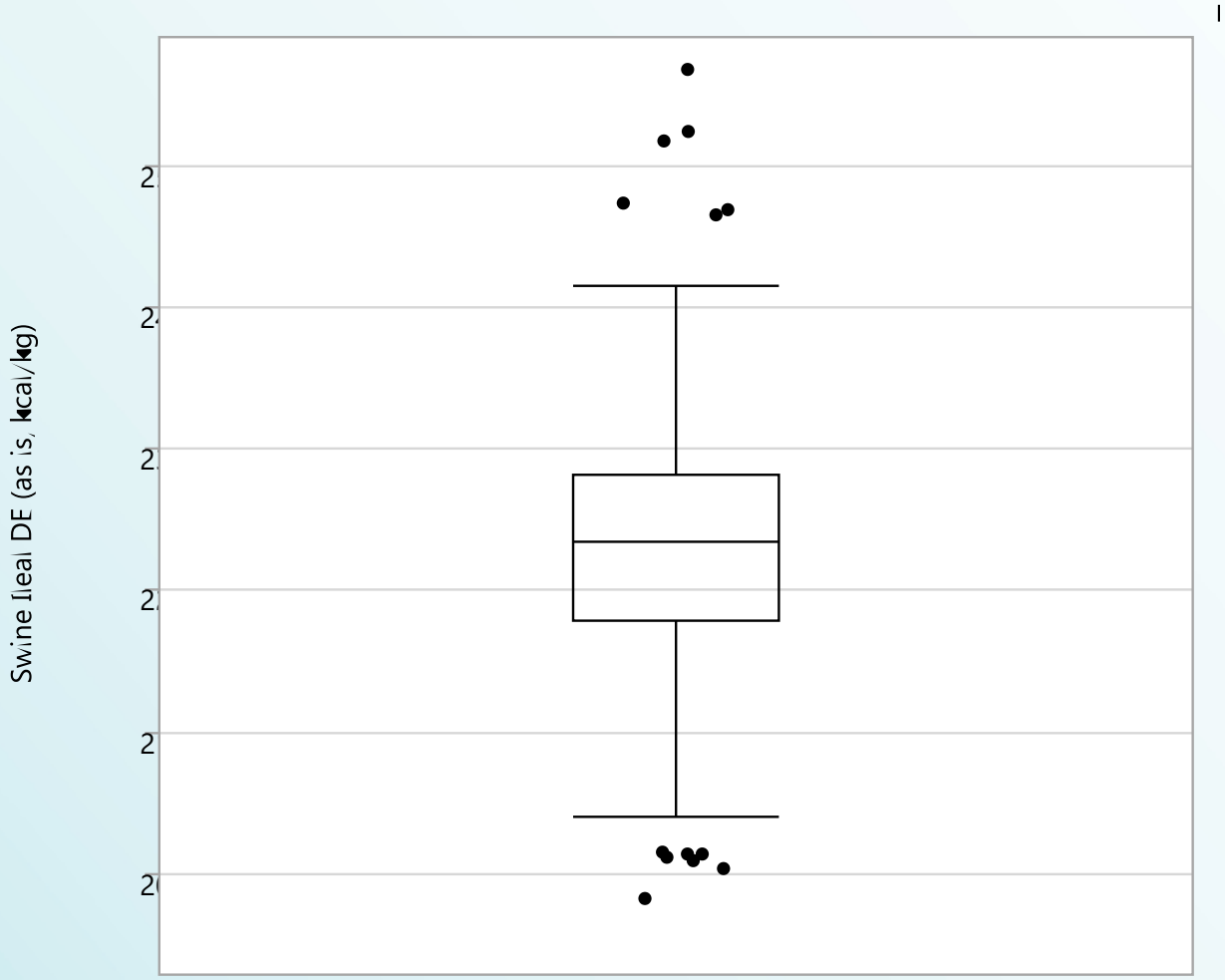
WHEAT POULTRY AME (KCAL/KG AS IS)



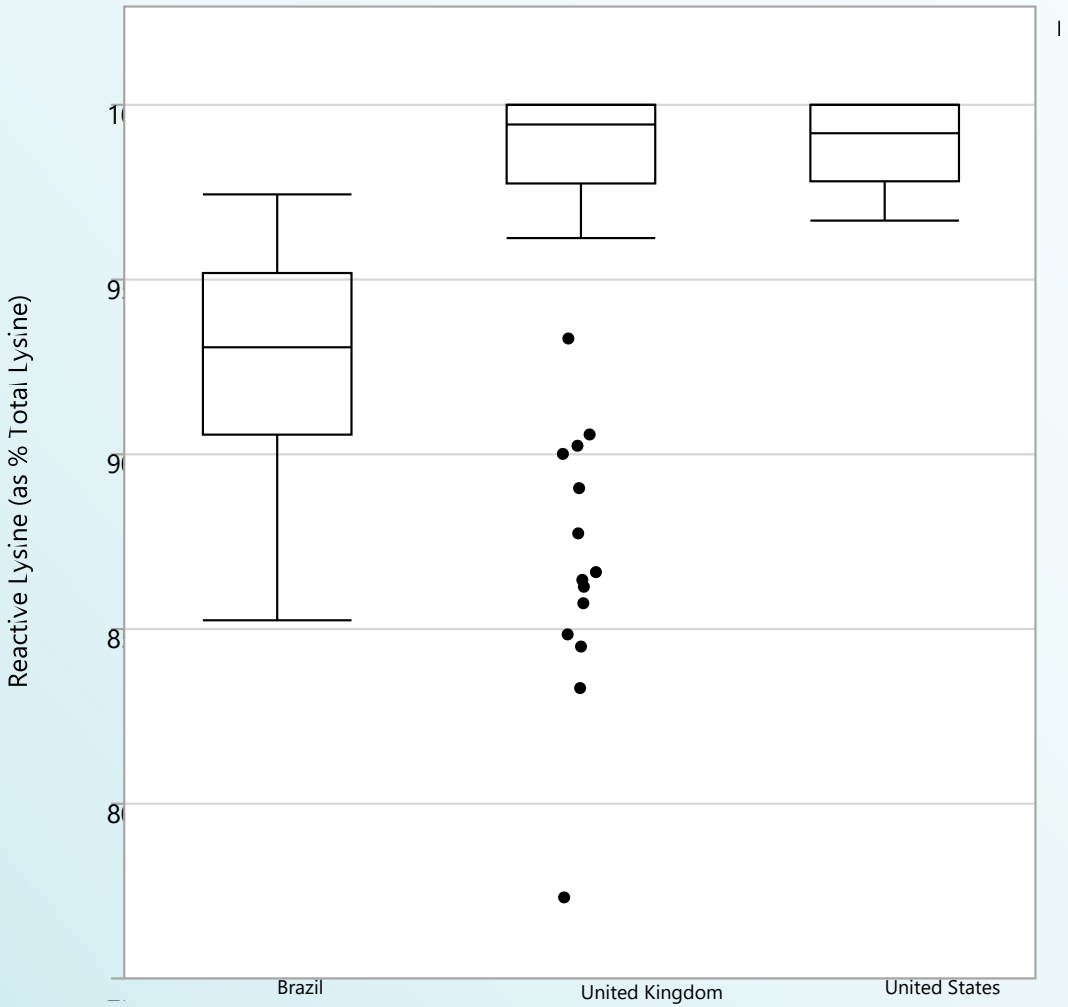
INFLUENCE OF STARCH ON WHEAT AME



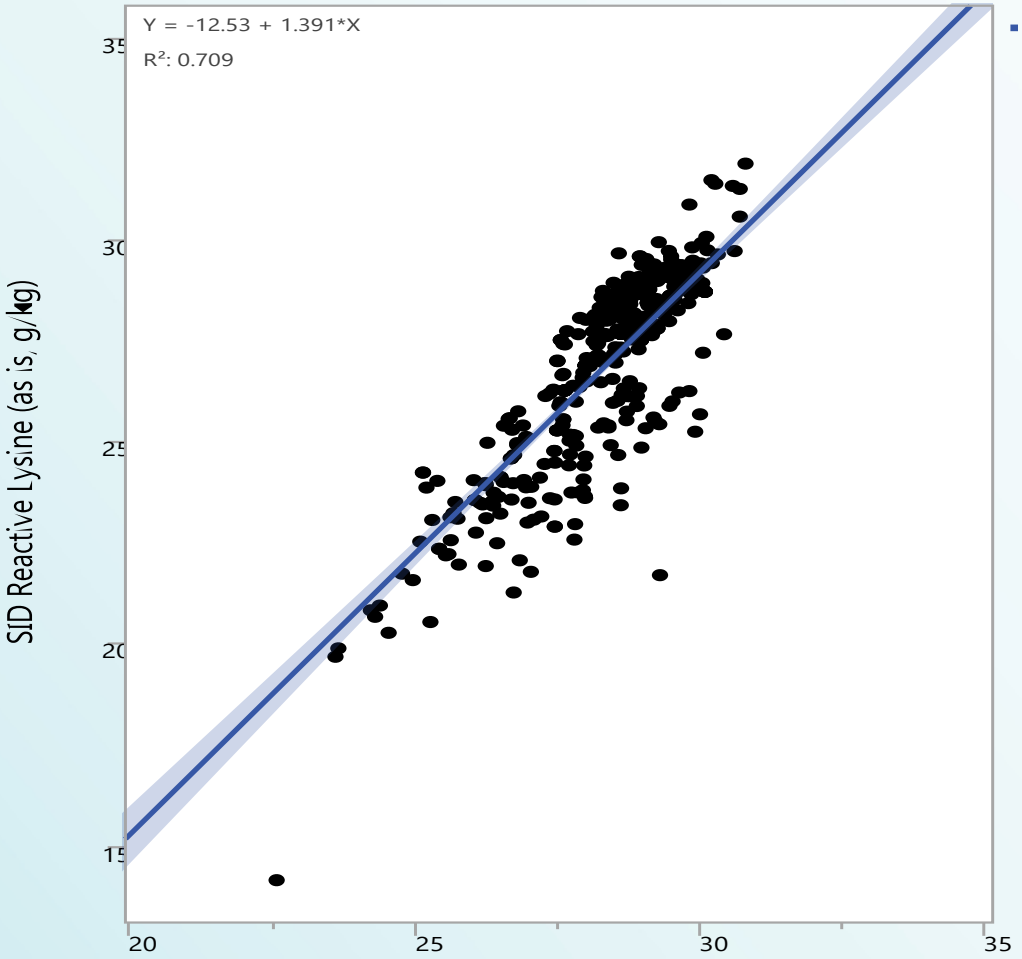
BARLEY SWINE ILEAL DE (KCAL/KG AS IS)



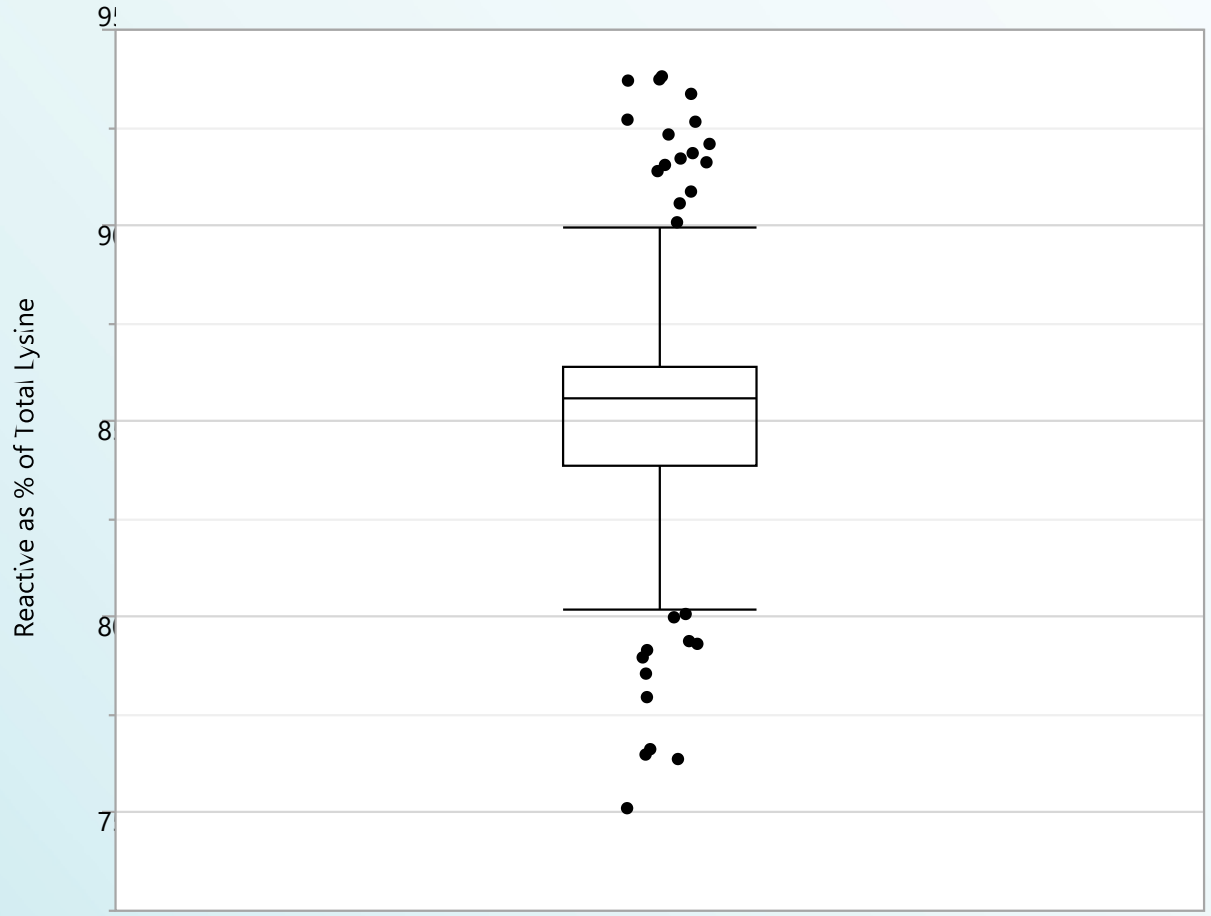
SBM REACTIVE LYSINE (% TOTAL)



SBM SID REACTIVE VS TOTAL LYSINE (G/KG)



CANOLA MEAL REACTIVE LYSINE (% TOTAL)



CONCLUSIONS

- On-line NIR allows:
  - access to a wide range of updated calibrations
  - rapid building of global results databases.
- Feedstuffs vary considerably in nutritive value, depending on source and season.
- An understanding of feedstuff and feed composition is key to an economically sustainable animal production.
- Industry challenges include infrastructure, expertise and ability to handle large datasets. Opportunities include better informed business decisions and discovery insights.