

# Use of novel technologies to optimize pig performance, welfare and carcass value

► Brian Sullivan, Canadian Centre for Swine Improvement

**The main objective of this project is to use new technologies to develop objective and accurate phenotypes for growth, feed efficiency, welfare, carcass value and meat quality in Canadian pigs.**

## Summary

To save time and reduce costs, many emerging technologies will be assessed in this project, e.g. systems to record individual water consumption, infrared cameras, accelerometers, near infrared reflectance spectroscopy, etc.

The technologies will be automated (when necessary) and validated to verify if they would be applicable in commercial conditions or research barns. Once automated and validated, the interesting technologies will be used on 2,500 commercial pigs tested across Canada.

### The tested technologies will be used to:

- Objectively assess growth, feed efficiency, welfare, carcass value and meat quality
- Develop affordable, easy to record, objective and accurate indicators of feed efficiency, animal welfare and carcass value
- Assess and compare live-animal and carcass performance
- Compare the impact of various feeding programs, genetics, pen crowding, slaughter weight, light and temperature on growth, feed efficiency, animal welfare, carcass and meat quality

Finally, recommendations will be provided to optimize performance, welfare and carcass value in Canadian pigs.

## Collaborators

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