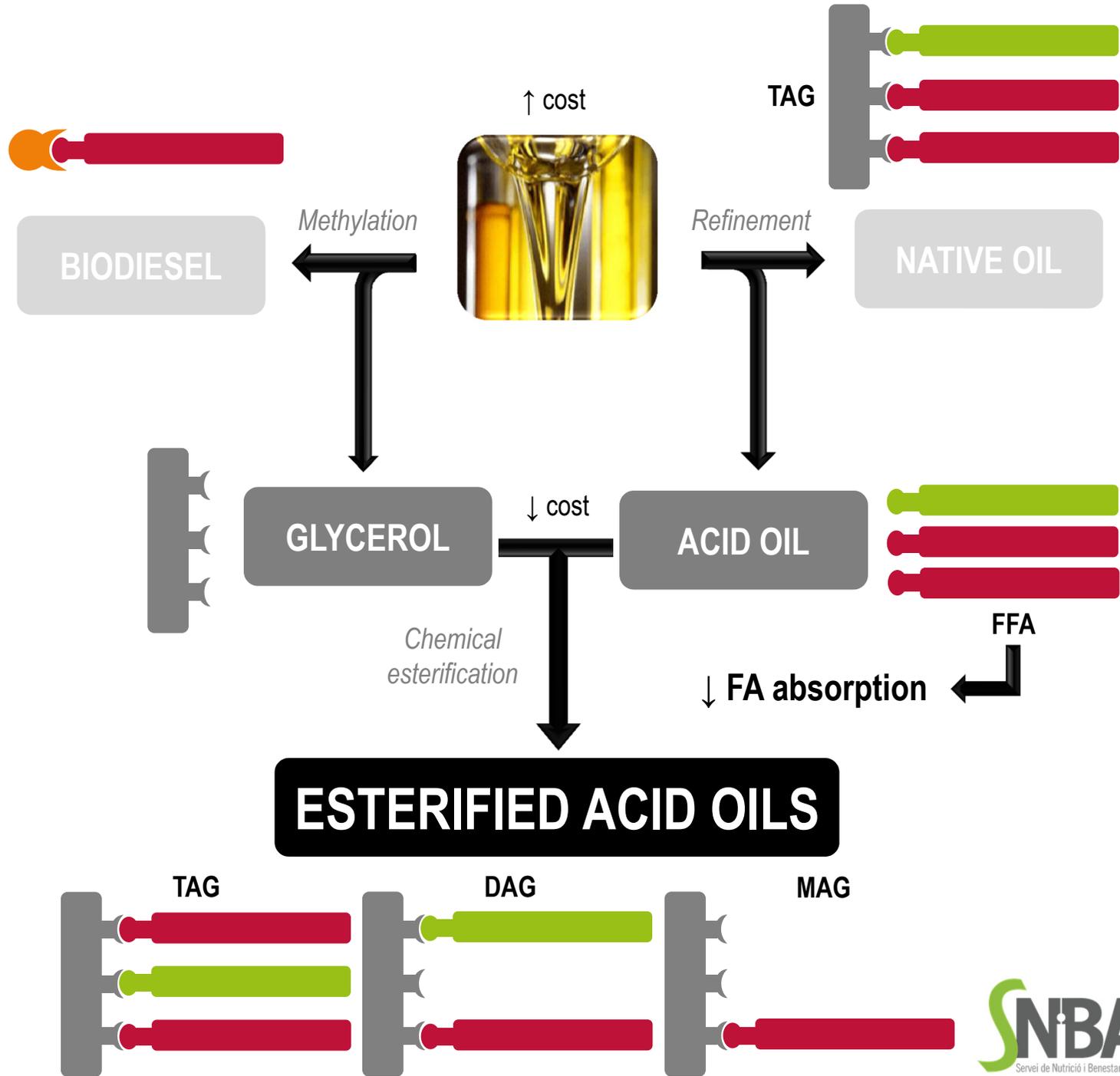


Use of esterified palm acid oils with different acylglycerol structure in fattening pig diets

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- Objective
- Material and Methods
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- Conclusion



Introduction

Hypothesis

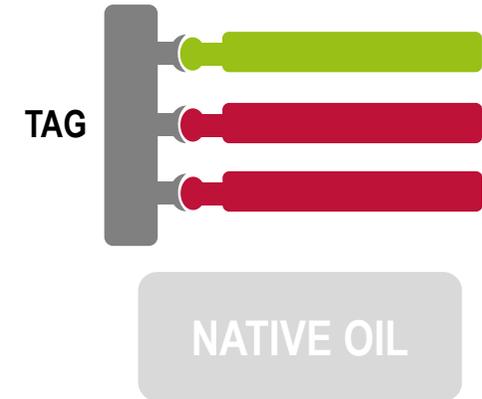
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- = FA composition
- ≠ acylglycerol composition
 - ↑ MAG and DAG
- ≠ FA positional distribution
 - ↑ *sn*-2 SFA

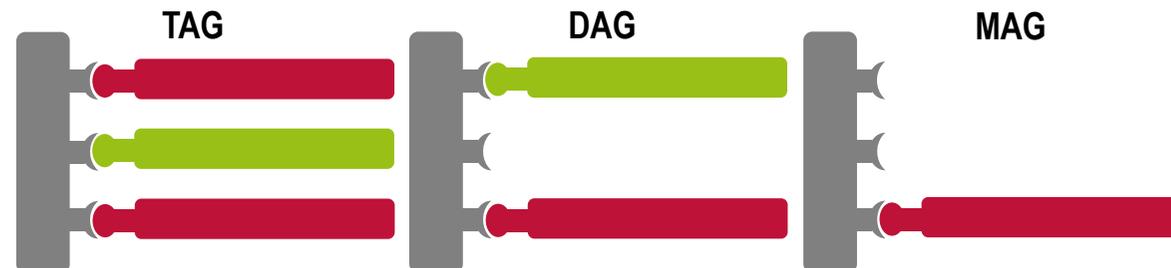


↓

? FA absorption

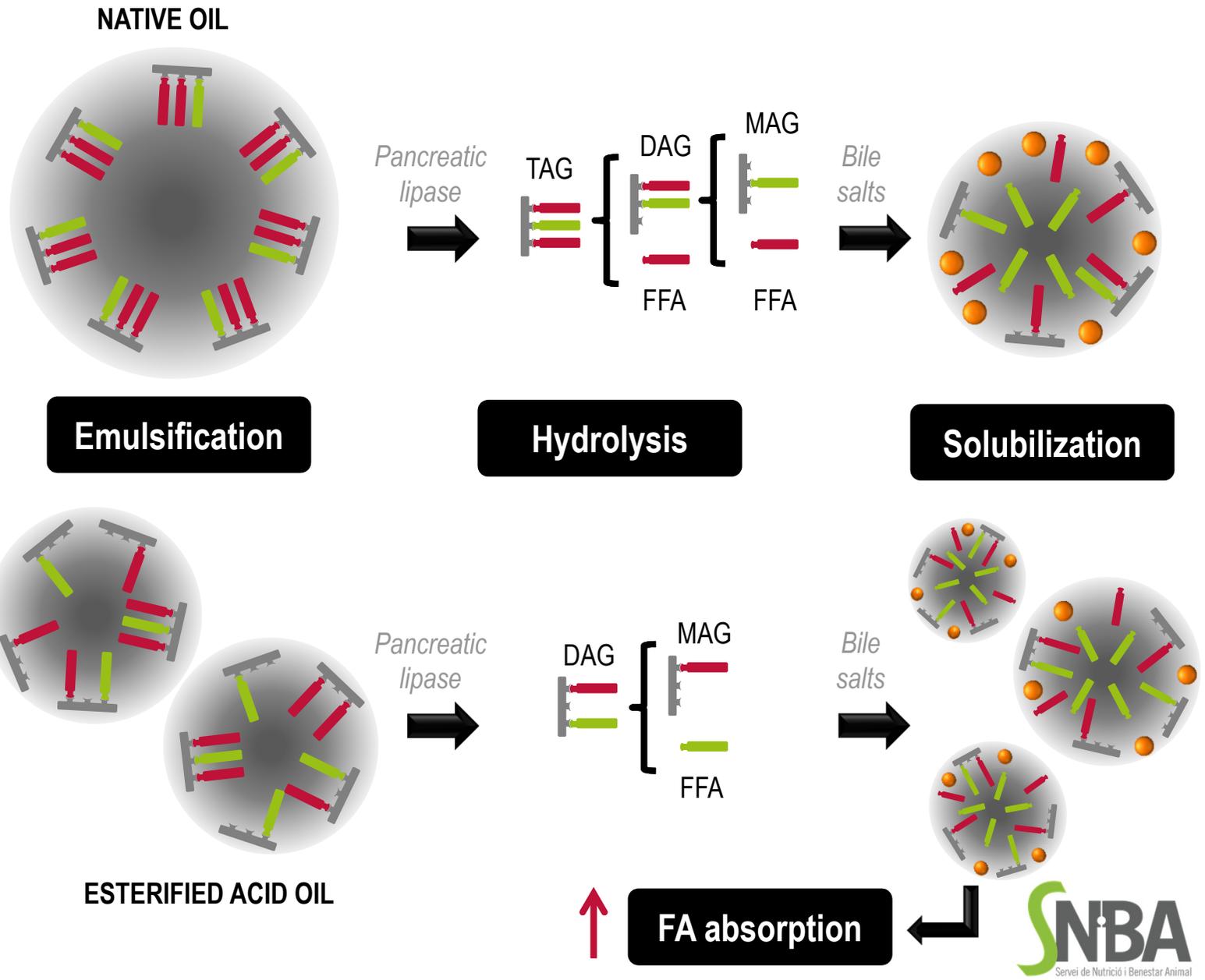


ESTERIFIED ACID OILS



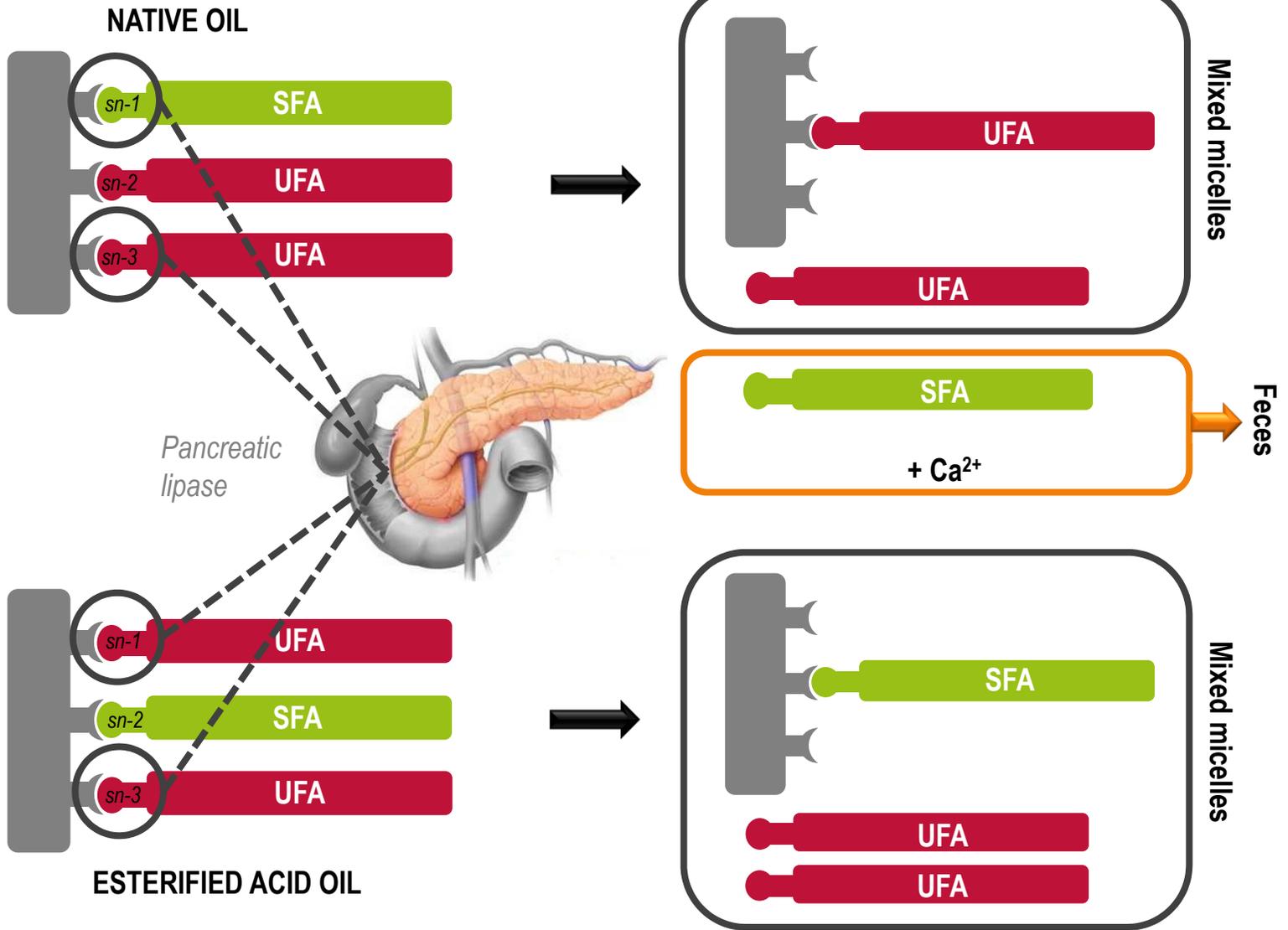
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↑ **MAG and DAG**



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↑ **sn-2 SFA**



↑ **FA absorption**

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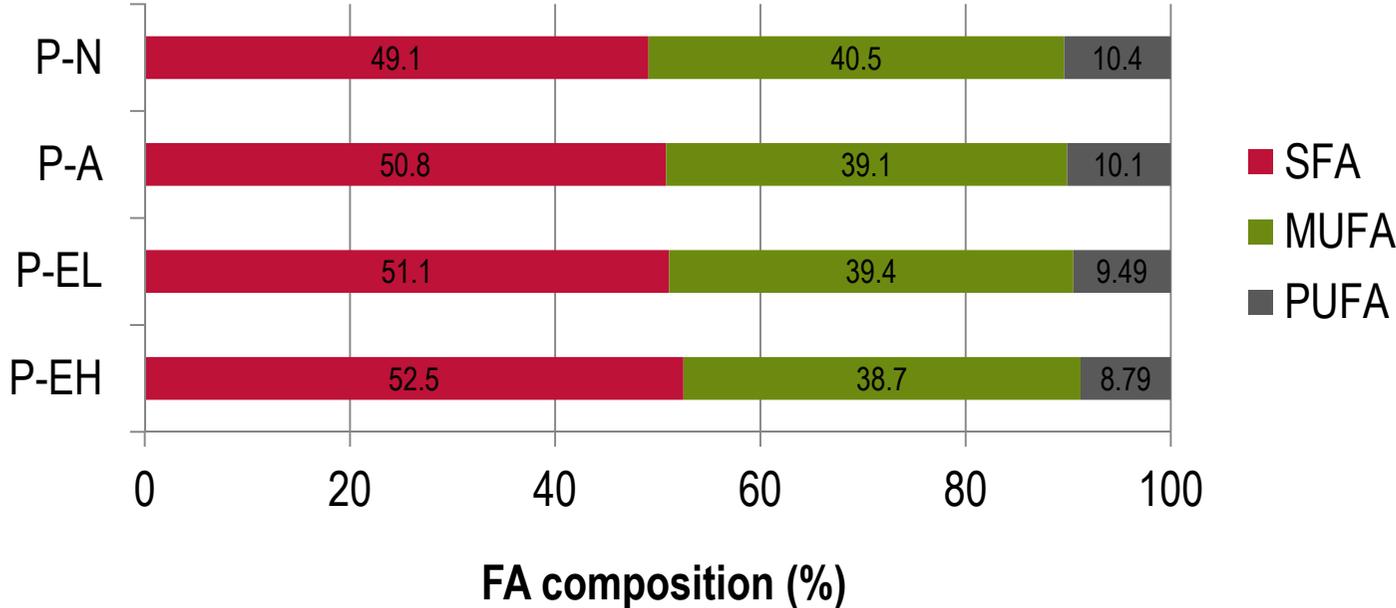
Investigate the **potential use of ESTERIFIED PALM ACID OILS**, differing in their acylglycerol structure, in **comparison with their corresponding ACID and NATIVE OILS** in fattening pig diets, studying their effects on:

- FA apparent absorption
- Growth performance
- Backfat FA composition

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▪ **Experimental diets:** Basal diet supplemented with 4% of:

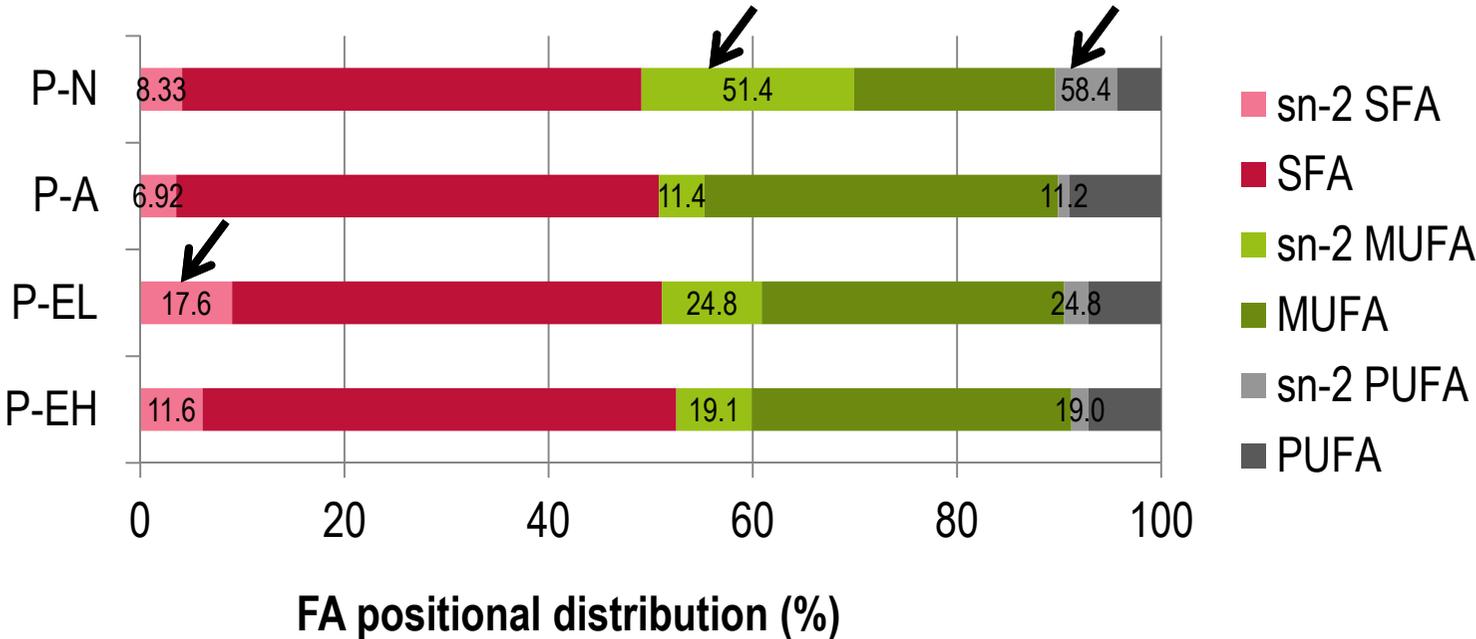
- P-N** Native palm oil
- P-A** Acid palm oil
- P-EL** Esterified palm acid oil low in MAG and DAG
- P-EH** Esterified palm acid oil high in MAG and DAG



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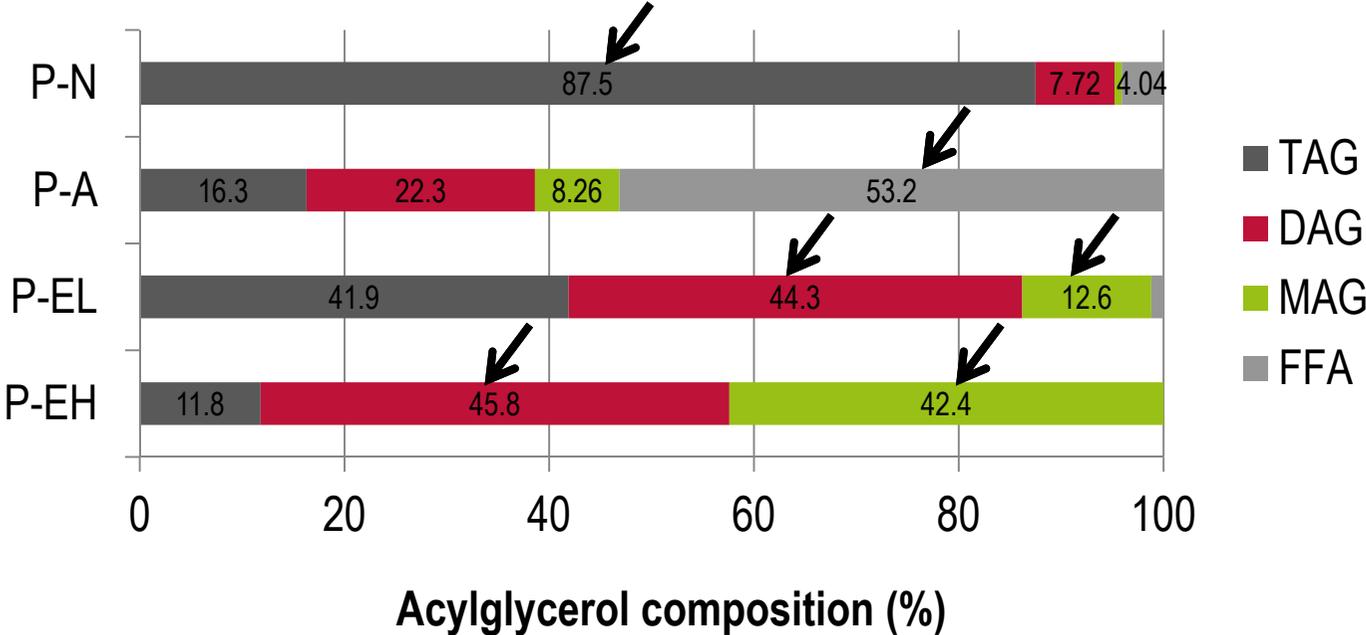
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- **Experimental diets:** Basal diet supplemented with 4% of:

P-N Native palm oil

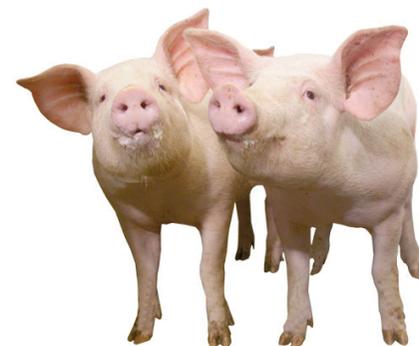
P-A Acid palm oil

P-EL Esterified palm acid oil low in MAG and DAG

P-EH Esterified palm acid oil high in MAG and DAG

- **Animals:**

- 72 boars and gilts ([Landrace x Duroc] x Pietrain) of 24.7 ± 2.55 kg.
- Blocked by initial BW within sexes.
- Housed in adjacent individual boxes.



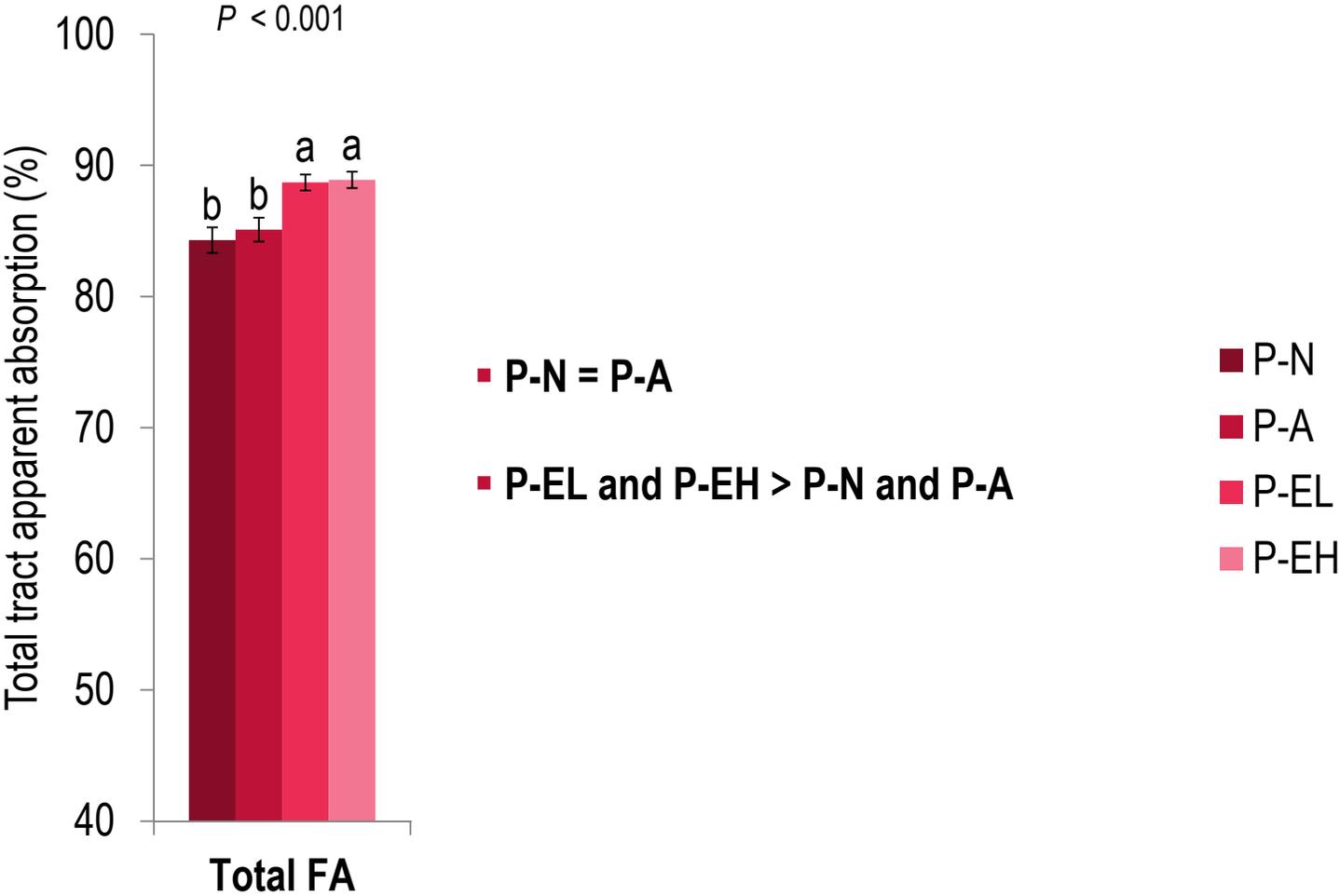
- **Controls and sampling:**



- **Statistical analysis:** Randomized complete block design (GLM procedure of [SAS](#).)

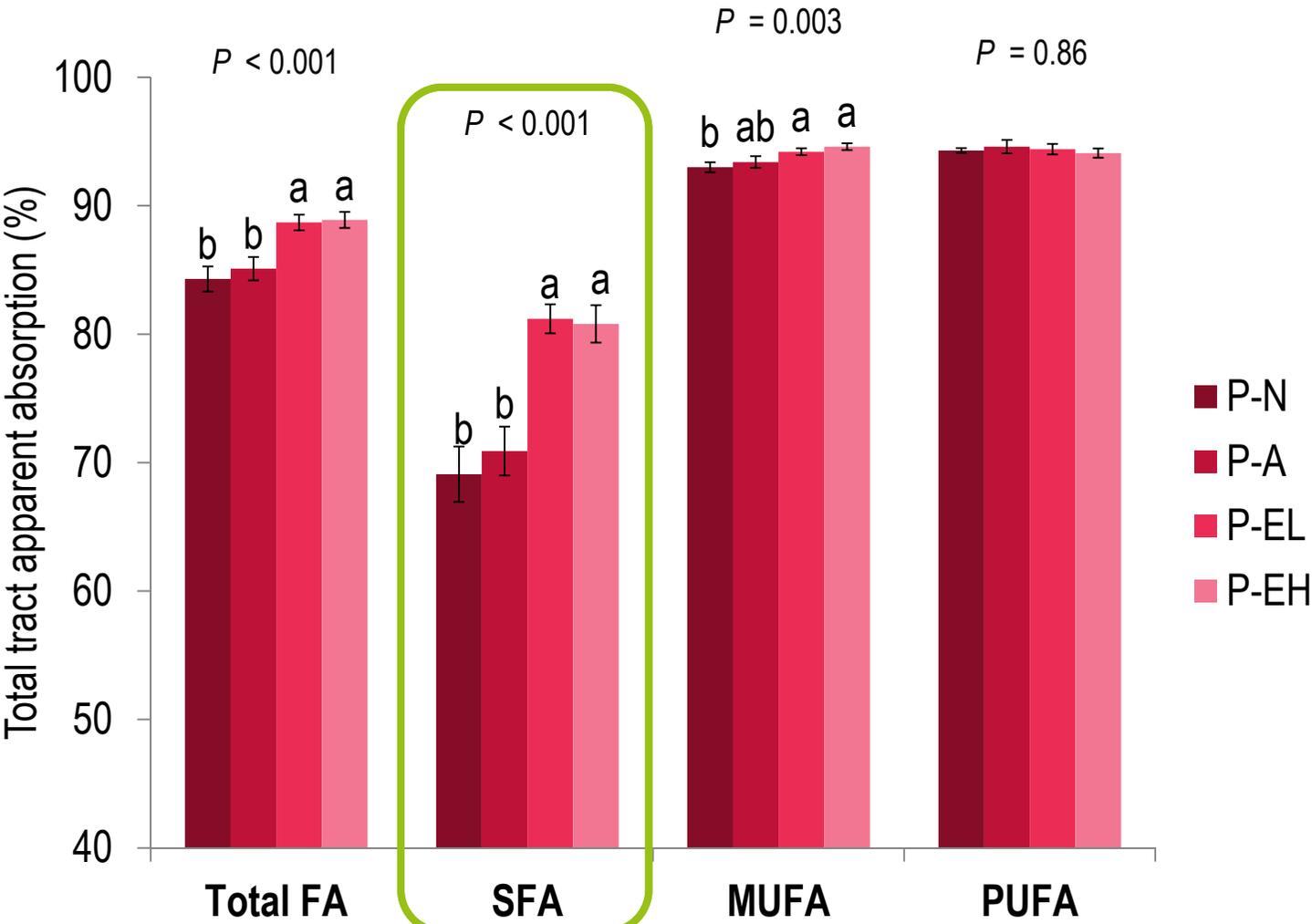
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FA apparent absorption



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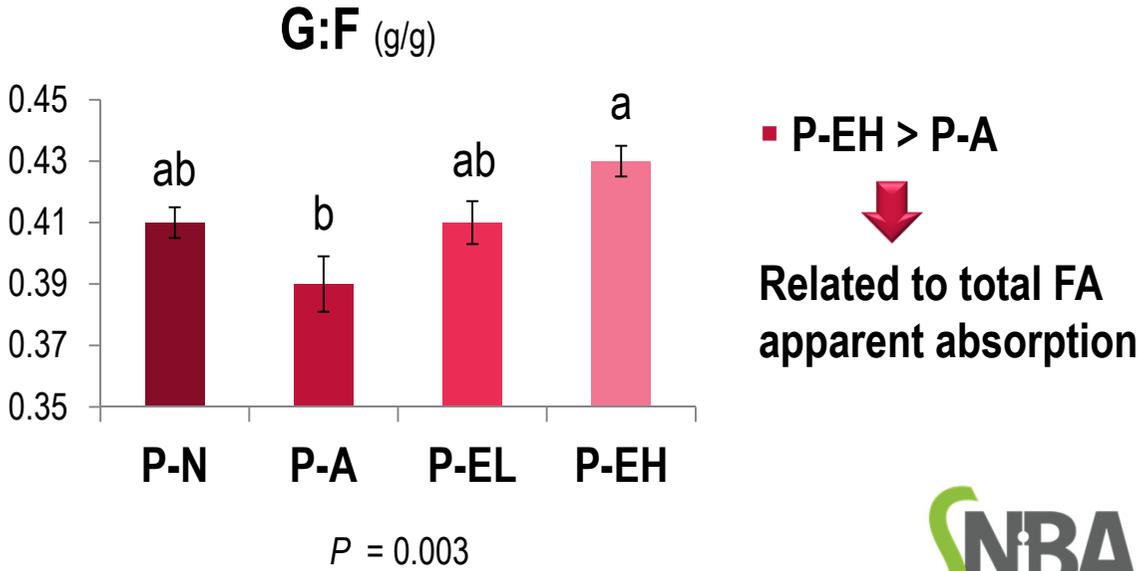
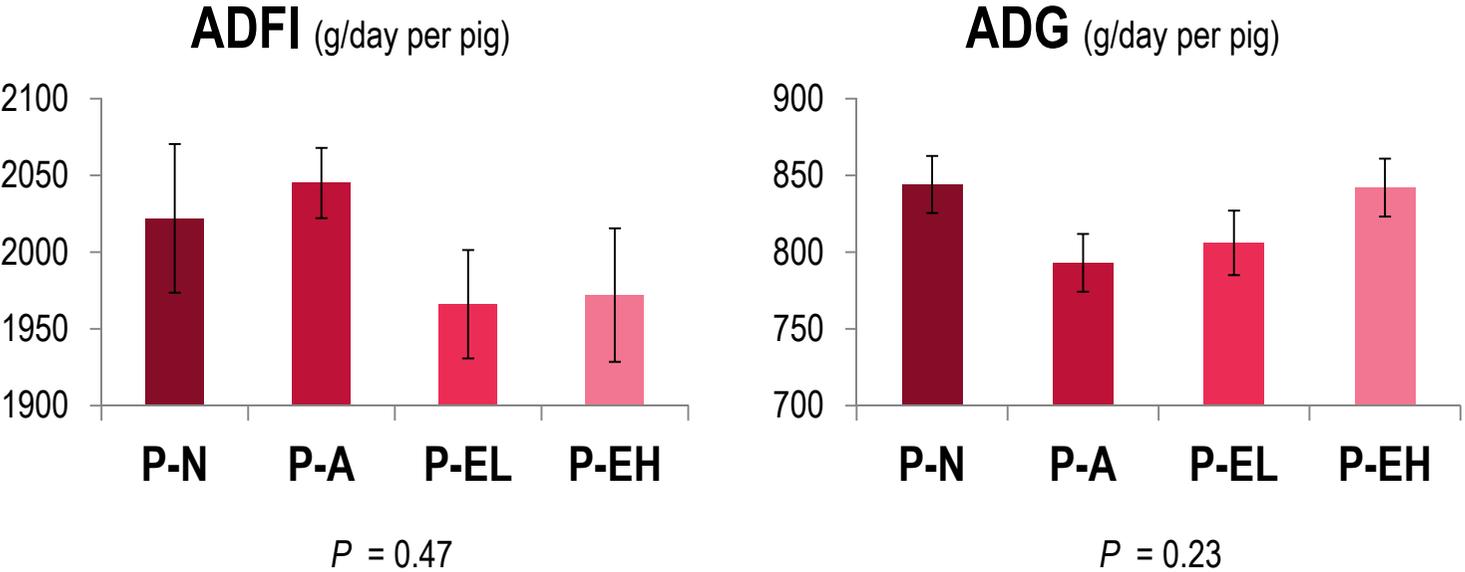
FA apparent absorption



- ↑ *sn*-2 SFA
- ↑ MAG and DAG

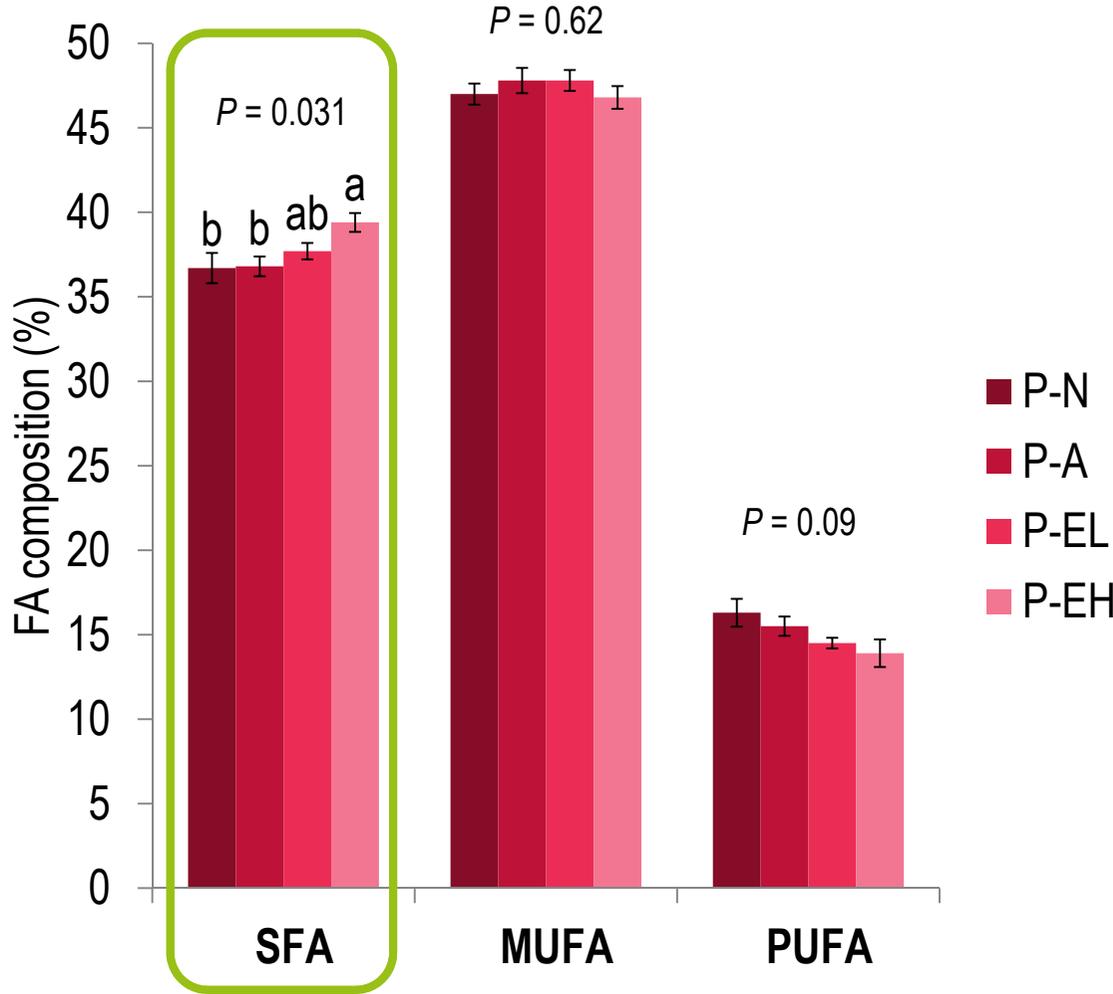
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Growth performance



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Backfat FA composition



■ P-EH > P-N and P-A



Related to SFA apparent absorption

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- Esterified palm acid oils achieved higher total FA apparent absorption than their corresponding native and acid oils, mainly due to the increased SFA apparent absorption.
- This resulted to an improved G:F ratio and an increased SFA deposition in backfat of pigs fed P-EH when compared to those fed P-A.



Esterified palm acid oils can be used in fattening-pig diets as an economically interesting alternative to native and acid palm oils.



Thank you!

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