

OMEX



Visit us at Stand C400



UK AD & WORLD BIOGAS EXPO 2019

***GETTING THE NUTRITIONAL AND BIOLOGICAL
HEALTH RIGHT***

OMEX



Visit us at Stand C400



OMEX's mission is to develop and market the most effective scientifically proven products and services for agriculture and industry, maximising efficiency for our customers whilst minimising environmental impact.

Effective Optimisation of Processes



OMEX



Visit us at Stand C400



Grow with OMEX

Established in 1976 OMEX has over 40 years experience, operating in over 65 countries around the world.

The group employ over 200 colleagues directly and supports many suppliers, hauliers, contractors and distributors, who all work in close partnership with the group.



grow with







OMEX







Visit us at Stand C400



The OMEX Group:

-  OMEX Agriculture Ltd - UK
-  OMEX Horticulture - UK
-  OMEX Environmental Ltd - Global
-  OMEX Agrifluids Ltd - Global

-  OMEX Agrifluids Inc - USA
-  OMEX Agriculture Inc - Canada
-  OMEX Agrifluids do Brasil Ltda - B
-  OMEX Mexico - Mexico



Anaerobic Digestion



Hydrolysis – Breaking down complex organic matter and releasing water

Acidogenesis – Conversion into intermediate organics, e.g. VFA

Acetogenesis – Intermediate organics forming basic gases and other compounds, e.g. CO_2 , H

Methanogenesis – Intermediate organics and



Factors affecting



S **Hydrolysis** - Feeding quantity
 - Floating, swimming or sinking layers (crusts)

- Increase in plant electrical consumption
 - Decrease in plant electrical production

Acidogenesis - Feeding quality

potential

- Low methane

- High fibre contents
 - Decreased electrical

production



Factors affecting



S **Acetogenesis** - Feeding quality, lack of nutrients, inhibitory factors, e.g. Ammonia, Hydrogen Sulphide

acid conversion

of long-chain volatile fatty acids,

production

- Low volatile fatty

- High concentrations of long-chain volatile fatty acids, e.g. iso-butyric

- Decreased electrical

Methanogenesis - Feeding quality, lack of



Optimising

S Hydrolysis – Feeding quantity
 - Use of the right blends of enzymes for biogas applications

Acidogenesis – Feeding quality
 - Use of the right blends of micronutrients for biogas applications



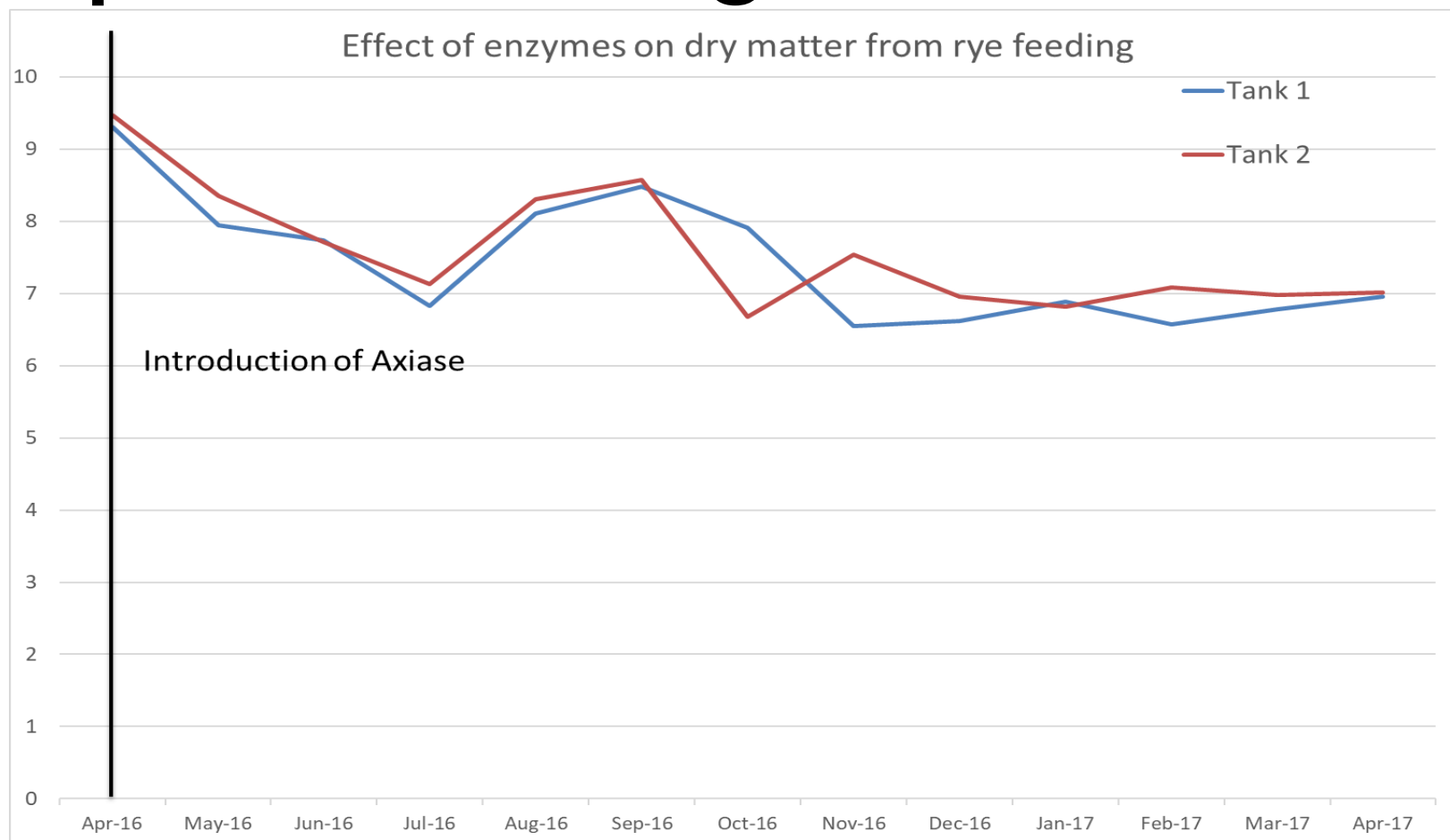
OMEX



Visit us at Stand C400

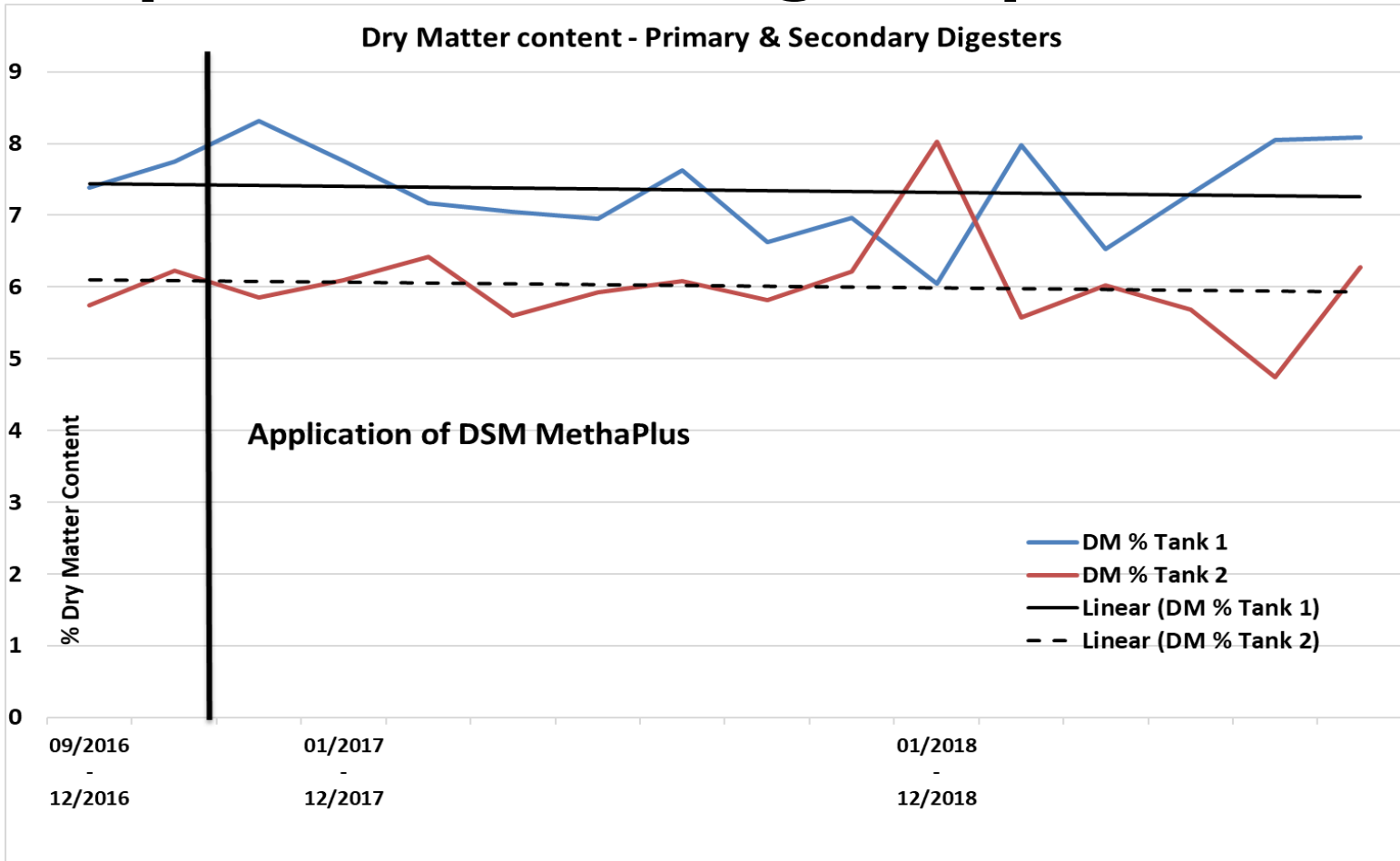


Optimising





Optimising Operations –





Optimising



S **Acetogenesis** - Feeding quality, lack of nutrients, inhibitory factors, e.g. Ammonia, Hydrogen

Sulphide

- Use of the right blends of micronutrients for biogas applications

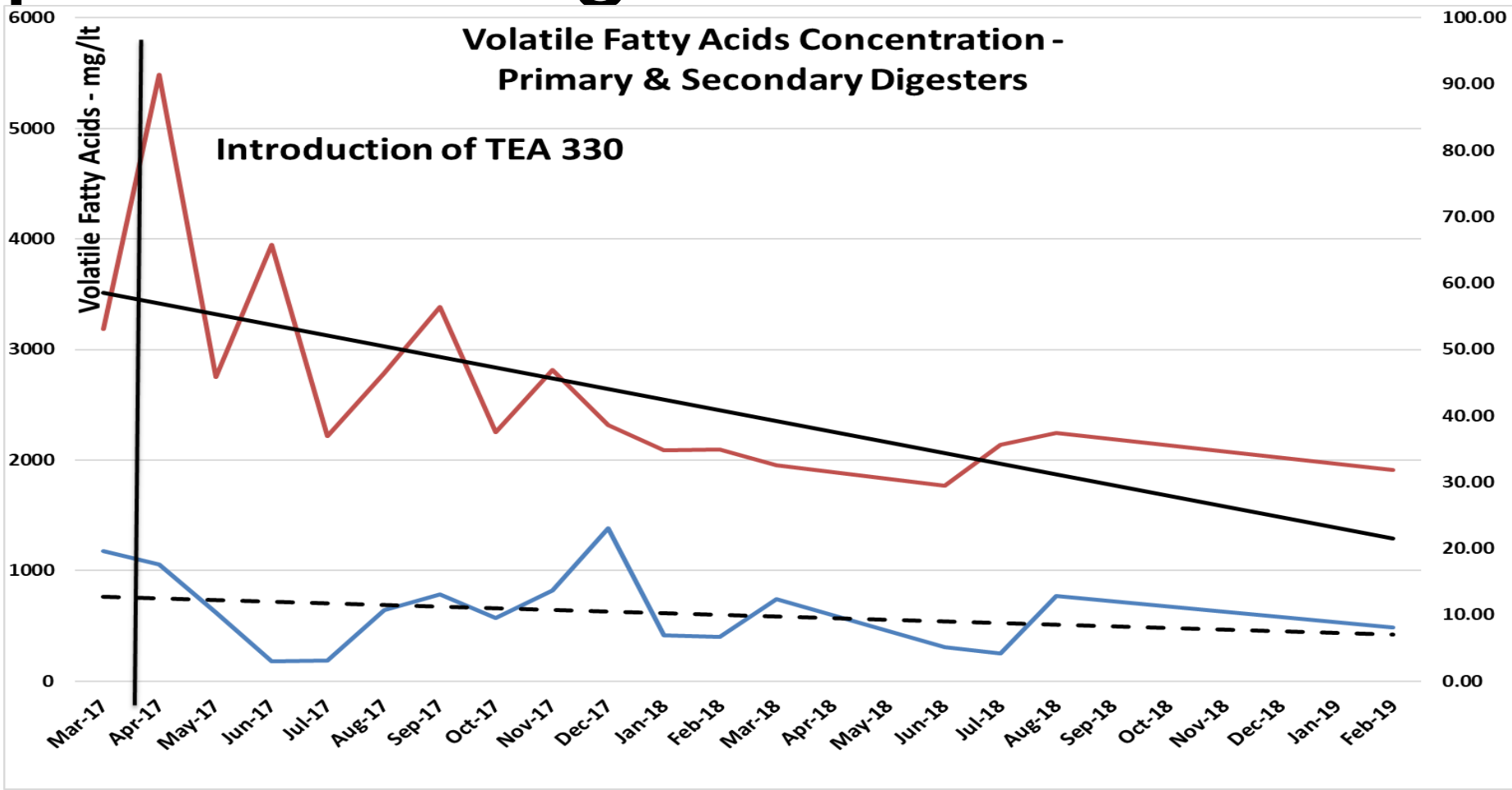
- Use of the right blends of inhibition minimisation products

Methanogenesis - Feeding quality, lack of nutrients, inhibitory factors, e.g. Ammonia, Hydrogen



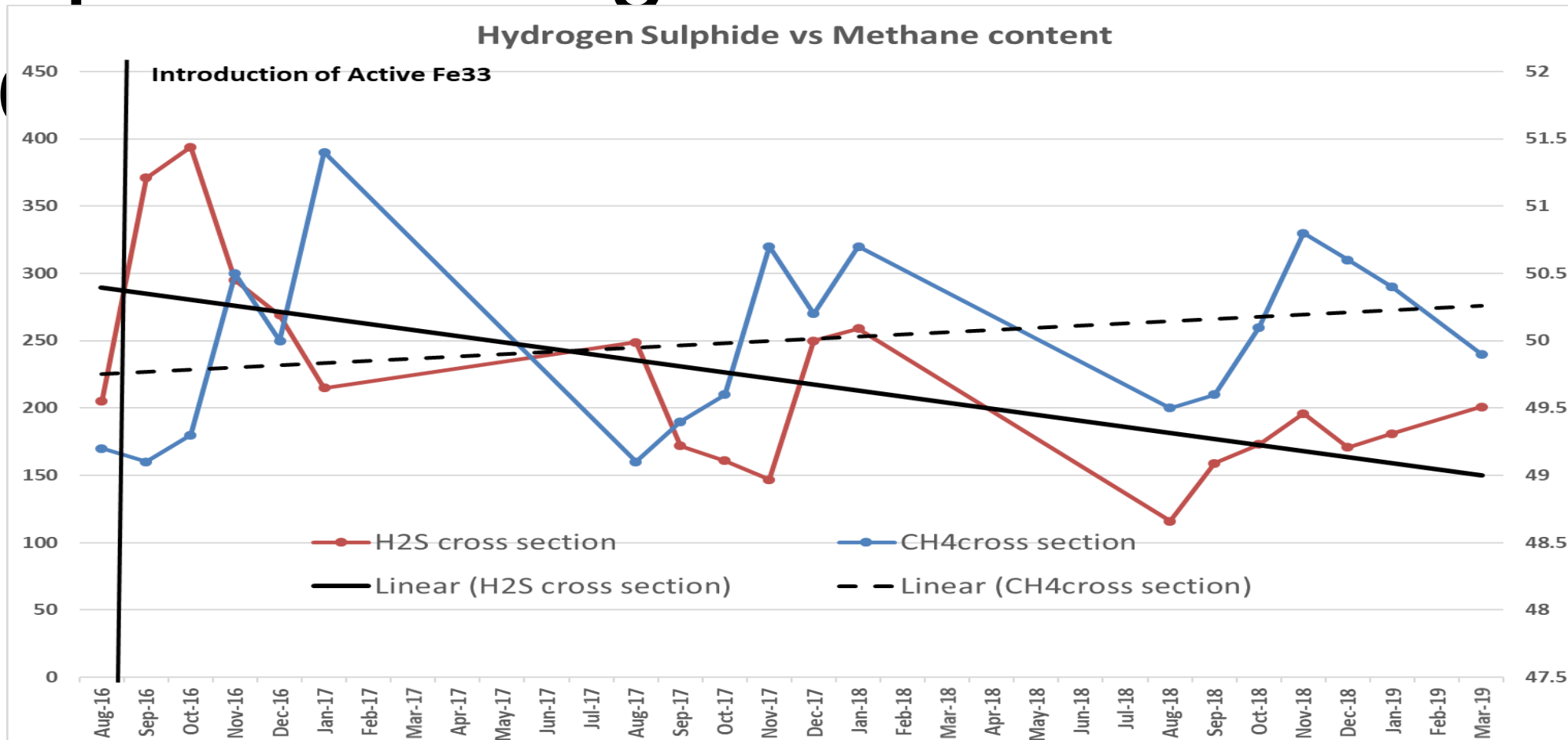
Optimising

O





Optimising



OMEX



Visit us at Stand C400



Services

Site - Process evaluation

Extensive Laboratory Services In Our Production Facilities

- *Inorganic, Organic, Microbiological*
- *Laboratory process simulations*

Product development and customization

Field trials to demonstrate technical applicability

Full technical support

Application equipment advice



OMEX



Visit us at Stand C400



Our offer to you



**ASSESSMENT OF PROCESS
TO PRODUCE
COST SAVINGS
MAXIMISE BENEFIT**

