



June 2023

Environmental & Performance Efficiency with MycoCURB Treated cereals for pigs



Highlights

1. Latest results John O'Doherty PhD - Treated cereals throughout FULL lifecycle

- Outcome – MycoCURB cereals vs dried cereals
 - Safe for **sows**
 - **5 – 10% increase** in FCR's / growth rates **without** adjusting for lower DM content attributable to treated cereals.
 - Circa **1 week earlier** to target weight
 - ≈ **10%** reduction in feed requirement
 - ≈ **15% reduction** in environmental footprint associated with feed per kg pig meat (50% - 70% of total footprint)
 - Improved health indicators
- The Why?
 - Improved Digestibility / improved gut health / the quality of MycoCURB grain
 - Synergy of using MycoCURB treated cereals at all stages of feeding

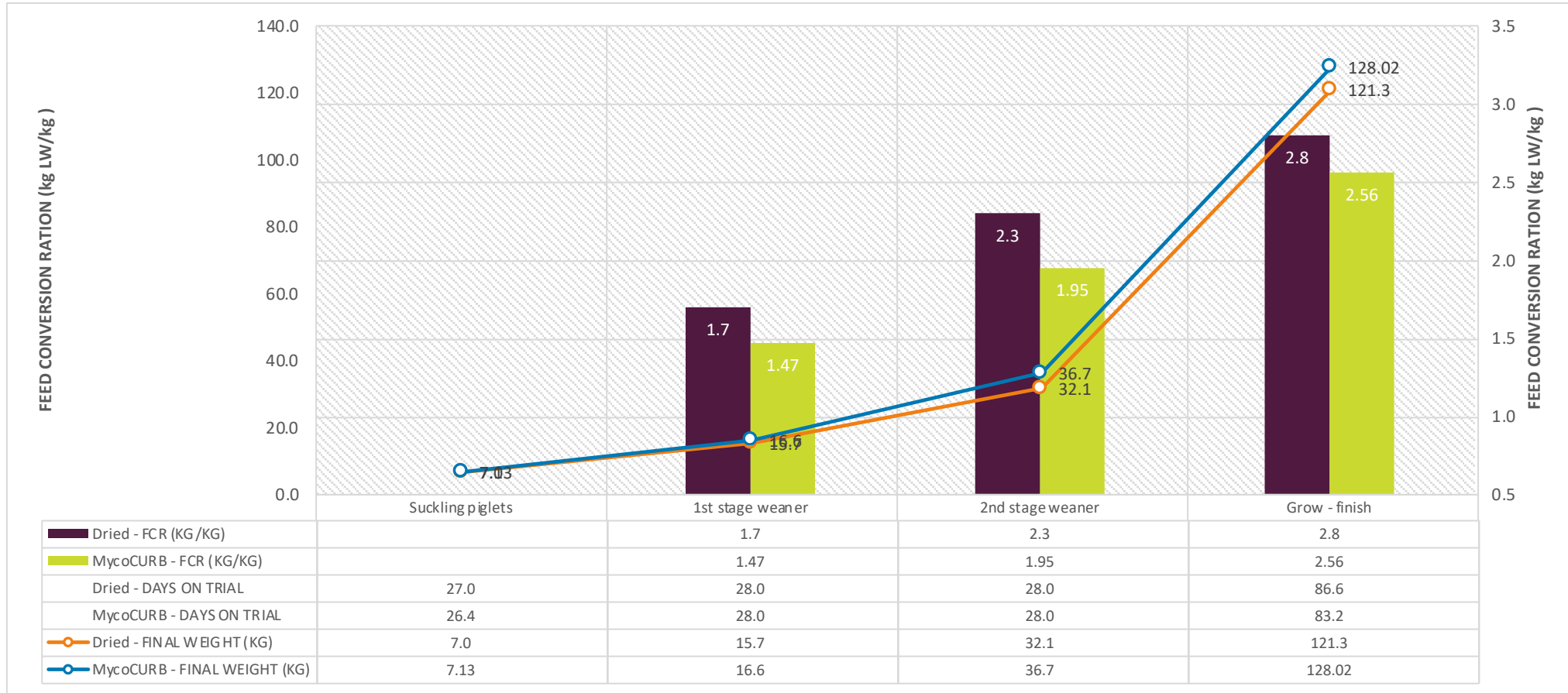
2. Cost / benefit advantages

- Reduced feed costs / kg pig meat
- superior FCRs / growth rate / health indicators

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Performance Highlights – Weights / FCR / Duration



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Performance Highlights – Weaning to Finish

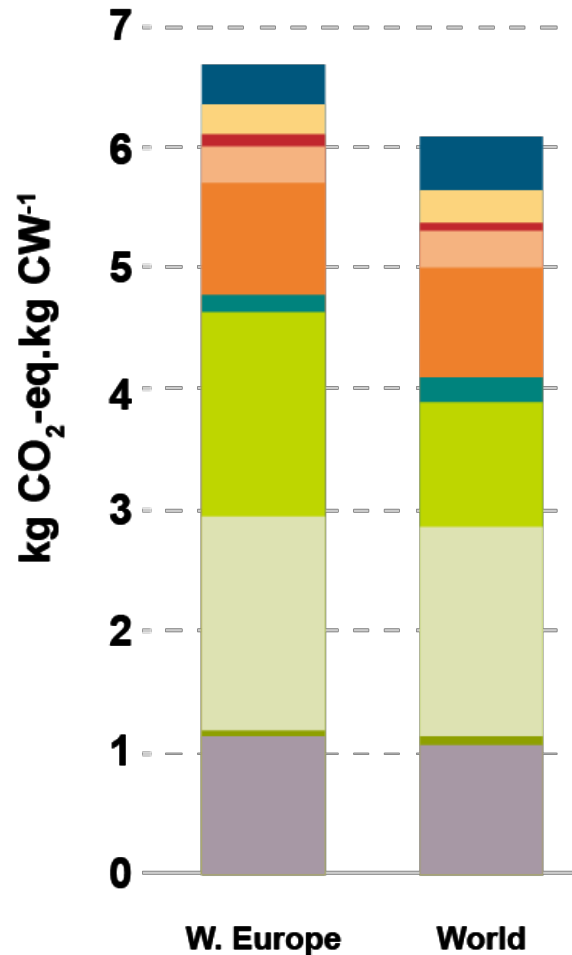
PERFORMANCE METRIC	DRIED CEREALS	CEREALS TREATED WITH MYCOCURB	DELTA
START WEIGHT (KG)	7.02	7.13	0.11
DAYS ON TRIAL	169.6	165.5	-4.1
FINAL WEIGHT (KG)	121.28	128.02	6.74
ADG (KG/DAY)	0.674	0.730	0.057
ADFI (KG/DAY)	1.78	1.73	-0.09
FCR (KG/KG)	2.64	2.37	-0.27
FEED REQUIREMENT (KG / PIG)	302.18	286.90	-15.28
ENVIRONMENTAL INDICATORS			
Carbon Footprint Diets (kg CO2 eq. / kg DM)	1.50	1.40	-0.10
Carbon Footprint Feed (kg CO2 eq. / kg LW)	3.97	3.32	-16%

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Sustainability Benchmarks

Feed is a key carbon contributor for Pigmeat – FAO Reference Values (2013)



- Other
- Postfarm, CO₂
- Direct energy, CO₂
- Indirect energy, CO₂
- Manure MMS, N₂O
- Manure MMS, CH₄
- Enteric, CH₄
- LUC: soybean, CO₂
- Feed, CO₂
- Feed: rice, CH₄
- Fertiliser & crop residues, N₂O
- Applied & deposited manure, N₂O

- LUC = Land use change – deforestation etc. for soya (10 – 20%)
- Feed production, fertiliser & crop residues (40 – 50%)
- Direct Energy (4 – 10%)
- Manure (15 – 20%)

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Sustainability Highlights

ENVIRONMENTAL INDICATORS	DRIED CEREALS	CEREALS TREATED WITH MYCOCURB	DELTA
FEED (50% - 70% WEIGHTING)			
FCR (KG/KG)	2.64	2.37	-0.27
CARBON FOOTPRINT –INDICATIVE DIETS (kg CO2 eq. / kg FW) ***	1.60	1.52	-0.08
CARBON INTENSITY - FEED (kg CO2 eq. / kg LW) ***	4.24	3.62	-15% (Net – 10.5%)
ENERGY INPUTS (5% - 10% WEIGHTING)			
ENERGY INPUTS AVOIDED DAYS SAVED [kWh]	-	-5%	
CARBON AVOIDED DAYS SAVED [CO2 eq. / kg LW]	-	5%	-5% (Net – 0.5%)
SLURRY (15% - 20% WEIGHTING)			
INCREASED DIGESTIBILITY	-	10%	
REDUCTION IN EMISSIONS FROM STORING / SPREADING SLURRY	-	-10%	-10% (Net -2%)

*** See attached CF of various reference diets

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Results – Suckling / Creep

PERFORMANCE METRIC	DRIED CEREALS - NO ZINC OXIDE	CEREALS TREATED WITH MYCOCURB – NO ZINC OXIDE	DELTA
INITIAL WEIGHT (KG)	1.34	1.33	-0.01
DAY 10 WEIGHT (KG)	3.32	3.24	-0.08
WEANING WEIGHT(KG)	7.02	7.13	+0.11
ADG (KG/DAY)	0.21	0.22	+0.01
INITIAL LITTER SIZE (n)	16.46	16.00	-0.46
MORTALITY [Day 0-10] (%)	9.75	7.11	-2.64
FINAL LITTER SIZE (n)	14.67	14.76	+0.09



Results - 1st stage Weaners

PERFORMANCE / DIET	DRIED CEREALS - NO ZINC OXIDE	CEREALS TREATED WITH MYCOCURB – NO ZINC OXIDE	DELTA
WEANING WEIGHT (KG)	7.02	7.13	+0.11
WEIGHT 28 DAY POST WEANING (KG)	15.7	16.6	+0.9
ADG (KG/DAY)	0.26	0.29	+0.03
ADFI (KG/DAY)	0.41	0.40	-0.01
FCR (KG/KG)	1.70	1.47	-0.23

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Results – 2nd stage Weaners

PERFORMANCE METRIC	DRIED CEREALS	CEREALS TREATED WITH MYCOCURB	DELTA
WEIGHT 28 DAY POST WEANING (KG)	15.7	16.6	+0.9
WEIGHT 56 DAYS POST WEANING (KG)	32.1	36.7	+4.6
ADG (KG/DAY)	0.52	0.60	+0.08
ADFI (KG/DAY)	1.19	1.17	-0.02
FCR (KG/KG)	2.30	1.95	-0.35

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Results – Grow / Finishers - PROVISIONAL

PERFORMANCE METRIC	DRIED CEREALS	CEREALS TREATED WITH MYCOCURB	DELTA
START WEIGHT (KG)	32.1	36.7	+4.60
DAYS ON TRIAL	86.59	83.18	-8.44
FINAL WEIGHT (KG)	121.28	128.02	+6.74
ADG (KG/DAY)	1.03	1.10	+0.070
ADFI (KG/DAY)	2.88	2.79	-0.090
FCR (KG/KG)	2.80	2.56	-0.24

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