ZOONO® ANIMAL HEALTH

MEASUREMENT SCALES, TECHNIQUES, SCALE AND VALUES

NG

ents were realized with ATP testing
e measurement units are in RLU that is not a
it of measurement. It depend of the
ems, sensitivities, reagent formulations and
systems.
different for each system. The most relevant
easurement is not the absolute value but the
ison, between sheds and on time.

SCALE

RLU scales are different for each system. Each manufacturer sets their own value for 1 light unit and all measurements are made relative to that value. The scale defined by the manufacturer of the used equipment is:

0 - 30	Considered Food Safe
31 - 100	Considered clean
101 - 200	Caution!
201 - 500	Contaminated
501 - 1000	High Risk of Infection
1000 +	Extreme Risk of Infection

VALUES

Average value: For each shed and for each me
moment, was obtained an average RLU value
average value of the two mid points from the s
goal is to reduce the outliers.
Relative difference: The relative comparison b
obtained by calculation of the ratio in percenta
average value obtained for each shed in the sa

ANTIBIOTIC FREE FARM SHED COMPARISON

ANTIBIOTIC FREE BROILER SHED TRIAL

ZOONO TREATED v's UNTREATED CONTROL SHED - ONE 41 DAY BIRD CYCLE

	Test nos. 232-237	243	Test nos. 244-250	0-0	Test nos. 264-269	263	Test nos. 7-12	13-18	Test nos. 19-24
0 - 30	3	2	5	2	0	0	1	0	0
31 - 100	1	2	1	2	2	3	1	1	1
101 - 200	0	0	0	0	1	2	2	0	2
201 - 500	2	2	0	2	2	1	0	0	3
501 - 1000	0	0	0	0	1	0	0	2	1
1000+	0	0	0	0	0	0	2	3	0
	6	6	6	6	6	6	6	6	7

ZOONO TREATED AFTER HIGH PRESSURE COLD WASH

AFTER WASH Sept 26th 2019			Z-71 APPLIED Sept 26th 2019			12 days Oct 8th 2019			21 days Oct 17th 2019			41 days Nov 6th 2019	
Test #	Result	Code	Test #	Result	Code	Test #	Result	Code	Test #	Result	Code	Test #	Result
232	4	A	244	4	A	264	96	B	7	26	A	19	119
237	38	B	246	17	A	266	216	D	9	128	C	20	623
234	21	A	247	3	A	267	39	B	10	84	B	21	54
236	202	D	248	18	A	269	505	E	11	1058	F	22	387
235	278	D	249	32	B	268	228	D	12	1067	F	23	453
233	30	A	250	12	A	265	172	C	8	127	C	24	127
	34			14.5			194			127.5			257

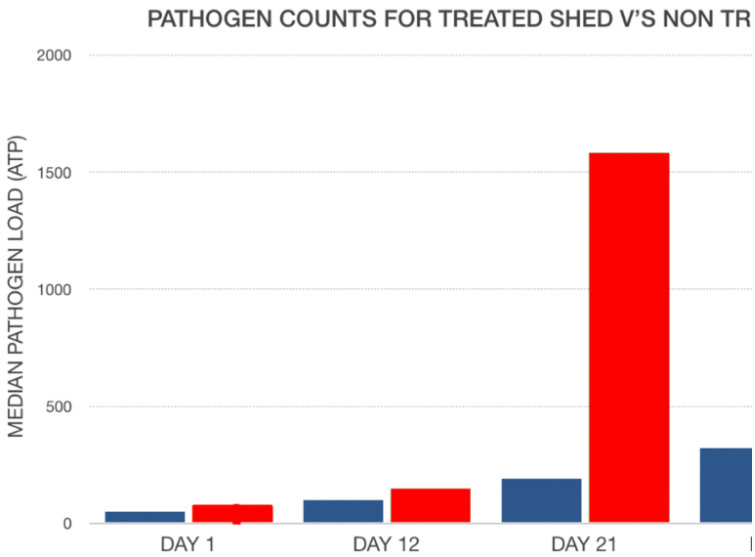
STANDARD CLEANING AND FUMIGATION

238	9	A		9	A	258	84	B	13	892	E	31	2951
239	29	A		29	A	260	53	B	15	87	B	32	770
240	98	B		98	B	259	93	B	16	804	E	33	420
241	442	D		442	D	263	408	D	17	2355	F	34	872
242	258	D		258	D	262	110	C	18	1378	F	35	2176
243	31	B		31	B	261	117	C	14	2991	F	36	1991
	64.5			64.5			101.5			1135			1431.5
	-47%			-78%			91%			-89%			-82%

CR	
D	1.44
ITISATION	1.553

NOTES

AFTER 41 DAYS HAS 83% LOWER MICROBIAL LOAD IN ZOONO TREATED SHED



NON-ZOONO

ZOONO TREATED

	DAY 1	DAY 12	DAY 2
TREATED SHED	49	100	191
NON TREATED SHED	80	148	1581

ALL IN ALL OUT BROILER FARM

ZOONO ANIMAL HEALTH CASE STUDIES

- STUDIES CARRIED OUT IN BROILER SHEDS FROM NOVEMBER 2018 – MAY 2019
- EACH STUDY IS CARRIED OUT THROUGHOUT CONSECUTIVE GROWING CYCLE – 42 DAYS

STUDY 1

- A SINGLE SHED TREATED WITH Z-71 AFTER STANDARD SANITISATION

STUDY 2

- COMPARING TWO SHEDS, TREATED AND UNTREATED.
- DRINKER LINE AND FOOD BOWLS WERE ADDED TO THE ATP TESTING LOCATIONS.
- ATP READINGS AFTER STANDARD SANITISATION THEN EVERY 10 DAYS THEREAFTER

STUDY 3

- READINGS TAKEN AFTER STANDARD SANITISATION, MID POINT AT 21 DAYS AND FINAL READINGS AT 42 DAYS

STUDY 1

THE BEST PERFORMING SHED ON THIS FARM

- WEIGHT GAINS APPROX + 50 GRMS
- APPROX 7 TONNE LESS FEED CONSUMED
- SHORTER RUN TIME - 38.6 DAYS
- FCR 4 POINTS IMPROVEMENT ON COMPARAE SHED.

STUDY 2

AN UNTREATED SHED WAS INTRODUCED AS A DIRECT COMPARISON TO THE TREATED SHED.
IN ADDITION TWO FURTHER ATP LOCATIONS WERE TESTED, FEEDER AND DRINKER BOWLS.

SHED A - UNTREATED

- TREATED WITH FORMALIN
- INSTANT LOW BACTERIA LEVELS AFTER STANDARD SANITISATION PROCESS
- HIGH LEVELS OF CONTAMINATION WIT DAYS OF CYCLE.
- PARTICULARLY CONCERNING LEVELS C AND DRINKER BOWLS

SHED B – TREATED

- MAINTAINED ALMOST ALL FOOD GRAD BACTERIA LEVELS THROUGHOUT CYCL
- APPROX 9 TONNES LESS FEED CONSU
- INCREASED WEIGHTS
- SHORT CYCLE AT 38 DAYS
- FCR COMPARISON AT 4 POINTS IMPRO TO UNTREATED SHED.

STUDY 3

SHED A – UNTREATED

- TWO HIGH MICROBIAL READINGS IMMEDIATELY AFTER STAND SANITISATION.
- HIGHLY CONTAMINATED THROUGHOUT THE CYCLE

SHED B – TREATED

- CONSISTENTLY LOW ATP READINGS THROUGHOUT THE STUD
- APPROXIMATELY 11.388 TONNES LESS FOOD CONSUMED IN COMPARISON TO OTHER UNTREATED SHEDS.

- FCR OVER 5 POINT IMPROVEMENT TO UNTREATED SHED.

CLIENT FEEDBACK

- "Sceptical at first that something you can spray in your mouth could be more effective than conventional sanitisers."
- "The ATP readings don't lie and the sustained low levels of microbes in the shed is reflected in improved overall bird performance."
- "The trend indicates savings of at least 10% of feed per run, increased bird weight and simply better performing birds in the treated shed."
- "Farm personnel can be in the shed unprotected whilst misting occurs – ECO FRIENDLY."
- "This technology is a big part of the solution for reducing the microbial levels in a shed."

BENEFITS AND ADVANTAGES

- Improved FCR's – ranged between 3 to 5 points in the treated shed.
- Shed sanitisation after water blasting is optional and has no effect on the performance of Z-71.
- Z-71 is non hazardous ensuring the health and safety of farm staff and contractors.
- Non hazardous, staff can operate in the shed at all times.
- No increase in stand down time between runs with Z-71 in a reduced microbial environment.
- Arguably in a Z-71 treated environment no reduction in birds / KGs per SQM required therefore productivity can be maintained.