ZOONO® ANIMAL HEALTH

MEASUREMENT SCALES, TECHNIQUES, SCALE AND VALUES

TESTING

easurements were realized with ATP testing
logy. The measurement units are in RLU that is not a
rdized unit of measurement. It depend of the
oring systems, sensitivities, reagent formulations and
etection systems.
cales are different for each system. The most relevant
of the measurement is not the absolute value but the
comparison, 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 measurement moment, was obtained an average RLU value calculated as average value of the two mid points from the six measured. goal is to reduce the outliers.
Relative difference: The relative comparison between sheds obtained by calculation of the ratio in percentage between t average value obtained for each shed in the same date

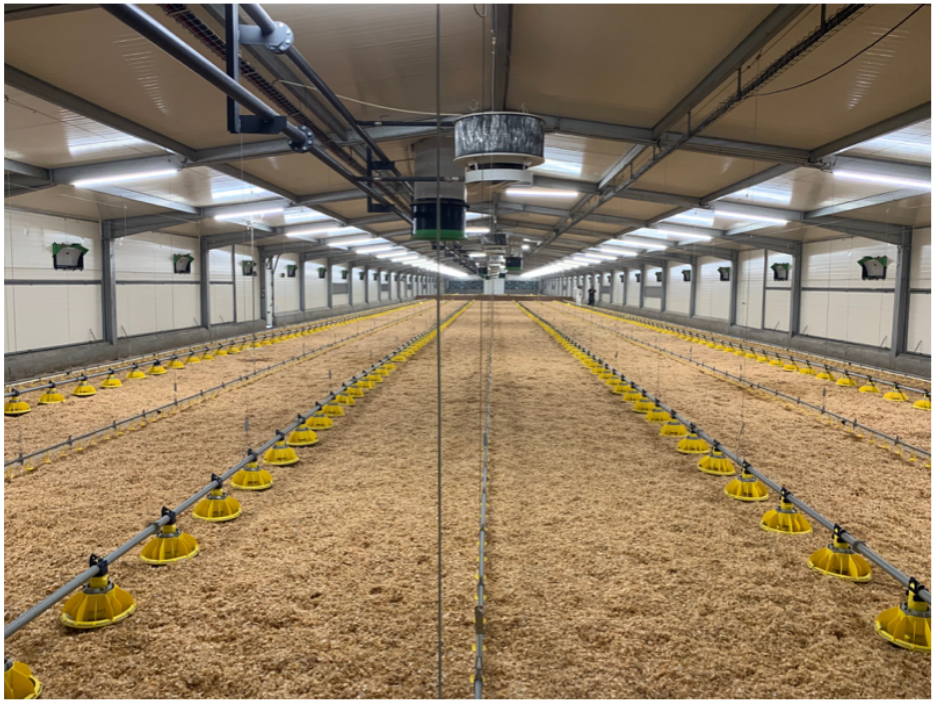
POULTRY FARM TESTS

INTRODUCTION

Test environment: inside 8 sheds were selected.

-4 control sheds (untreated) with no Z-71 applied
-4 sheds (treated) where Z-71 was applied

6 locations for ATP monitoring
- 4 points in the walls
-1 drinker
-1 feeder



RESULTS: PROCESS AND DATA ANALYSIS

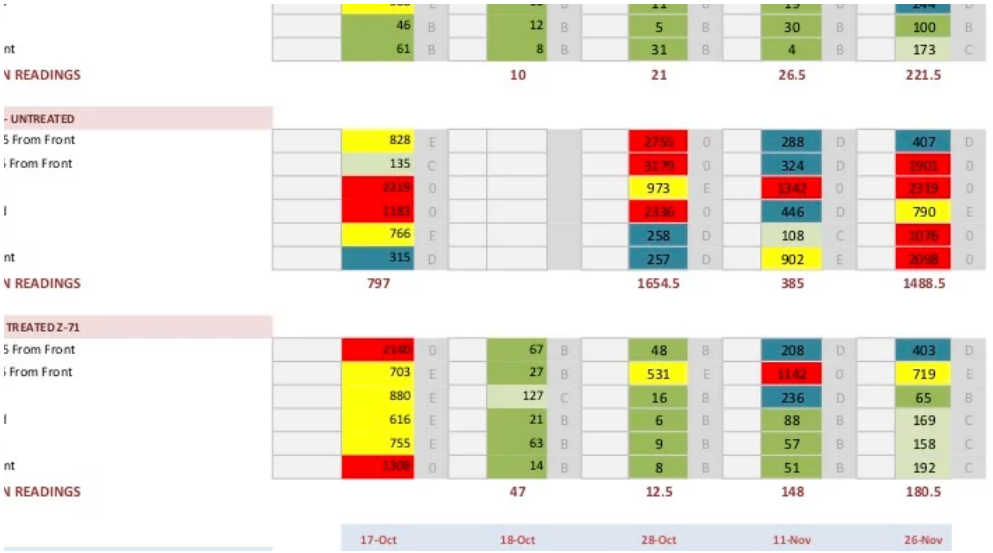
28/11/2019	Test nos.		Test nos.		Test nos.		Test nos.		Test nos.	
ered Food Safe (A)	0 - 30	0	0	0	1	0	0	0	0	0
ered clean (B)	31 - 100	1	0	0	4	0	4	0	3	0
! (C)	101 - 200	3	3	0	1	0	0	0	1	0
inated (D)	201 - 500	2	1	0	0	3	1	0	1	0
sk of Contamination	501 - 1000	0	1	0	0	2	0	1	0	1
e Risk of Contamination	1000+	0	1	0	0	1	1	5	1	5
		6	6	0	6	6	6	6	6	6

STANDARD PREPERATION

PRE BIRD ARRIVAL[AFTER TREATMENT

	17 October 2019			18 October 2019			28 October 2019			11 November 2019			26 November 2019		
	Test #	Result	Code	Test #	Result	Code	Test #	Result	Code	Test #	Result	Code	Test #	Result	Code
UNTREATED															
5 From Front		139	C					870	E		2680	F		6130	F
From Front		273	D					3503	F		4496	F		8489	F
		194	C					380	D		3164	F		5615	F
l		153	C					512	E		1608	F		570	E
		73	B					441	D		2134	F		2908	F
nt		261	D					473	D		501	E		3755	F
N READINGS		173.5						492.5			2407			1739	
TREATED Z-71															
5 From Front		313	D		47	B		270	D		385	D		201	D
From Front		113	C		113	C		1604	F		1690	F		832	E
		1895	F		23	A		47	B		135	C		154	C
l		506	E		70	B		47	B		94	B		146	C
		105	C		33	B		32	B		67	B		80	B
nt		129	C		33	B		38	B		59	B		73	B
N READINGS					40			47			114.5			150	
UNTREATED															
5 From Front		762	E					885	E		1584	D		3095	D
5 From Front		80	B					4379	D		1687	D		3950	D
l		242	D					134	C		1659	D		275	D
d		34	B					352	D		786	E		838	E
		86	B					115	C		802	E		740	E
ont		235	D					77	B		1221	D		898	E
N READINGS		160.5						243			1402.5			868	
TREATED Z-71															
5 From Front		340	D		117	C		205	D		147	C		159	C
5 From Front		62	B		8	B		2836	D		921	E		1271	D
l		810	E		35	B		11	B		63	B		53	B
d		1443	D		78	B		17	B		16	B		23	B
		33	B		18	B		13	B		51	B		131	C
ont		206	D		11	B		8	B		55	B		209	D
N READINGS					26.5			15			59			145	
UNTREATED															
5 From Front		97	B					2068	D		4987	D		3971	D
From Front		351	D					4304	D		2144	D		3082	D
		969	E					188	C		316	D		1220	D
l		361	D					1667	D		645	E		1778	D
		2772	D					125	C		24	B		1374	D
nt		446	D					150	C		21	B		1414	D
N READINGS		403.5						927.5			480.5			1297	
TREATED Z-71															
5 From Front		739	E		54	B		132	C		111	C		476	D
From Front		296	D		41	B		709	E		666	E		868	E
		2242	D		10	B		8	B		23	B		199	C
l		588	E		10	B		11	B		19	B		244	D

ATP READINGS



			46	B	12	B	5	B	30	B	100	B
nt			61	B	8	B	31	B	4	B	173	C
N READINGS					10		21		26.5		221.5	
- UNTREATED												
5 From Front			828	E			2755	O	288	D	407	D
From Front			135	C			3179	O	324	D	3901	O
			2219	O			973	E	1342	O	2319	O
l			1183	O			2336	O	446	D	790	E
			766	E			258	D	108	C	1076	O
nt			315	D			257	D	902	E	2098	O
N READINGS			797				1654.5		385		1488.5	
TREATED Z-71												
5 From Front			2140	O	67	B	48	B	208	D	403	D
From Front			703	E	27	B	531	E	1142	O	719	E
			880	E	127	C	16	B	236	D	65	B
l			616	E	21	B	6	B	88	B	169	C
			755	E	63	B	9	B	57	B	158	C
nt			1308	O	14	B	8	B	51	B	192	C
N READINGS					47		12.5		148		180.5	
			17-Oct		18-Oct		28-Oct		11-Nov		26-Nov	

OBSERVATIONS:

- One day after the Z-71 application, the average microbial reading (ATP) ha significantly reduces in excess of 90%.

- Sheds treated with Z-71 show an over 90% reduction in microbial c compared to Non-Zoono treated environments.

This resulted in improved FCR's by up to 5 points.