USEFUL APPS

Making the most of your hatchery data. Using pivot tables to boost hatchery management

Almost every Hatchery manager assesses his results by collecting performance data such as hatchability, hatch of fertile, water loss, hatch debris, mortality patterns, percentage of culls and first week mortality.

But the best way of keeping track and using the information to manage the hatchery is by analyzing the data collected as a whole, identifying how each key performance indicator (KPI) is performing and checking how they are interrelated. There is no point in collecting vast quantities of data if you cannot then make good use of them. Keeping data on sheets of paper stored in desk drawers will not help you boost your KPI's.

Nowadays, with data collection being a routine component of day-old chick production, there are many sophisticated tools available to track the hatchery environment. Data loggers can collect real time data describing (for example) temperature, humidity or CO_2 using remote sensors and transmitting the information to a networked computer, a tablet or even a cell phone. However, no matter how much easier data collection has become, the information still needs to be summarized and used to correlate cause and effect.

The best way of summarizing all the data collected is by putting it into a database or spreadsheet in such a way that all the information can be analyzed as a whole, looking closely at details where necessary.

Excel is one of the most widely available programs for data analysis, and many people working in a hatchery will have some familiarity with it.

While not everybody uses them, it is full of surprisingly sophisticated tools for analyzing data, and can cope with very big data sets. As such, it can provide rich information for improving a hatchery's KPI's.

Avoid producing daily report sheets as they are difficult to analyze. A better way is to consolidate the data, and then use Pivot tables to control process and KPI's. (**Figure 1**).

Pivot tables allow the user to create any kind of report needed in order to evaluate different KPI's, machines or data loggers in one unique screen. Moreover they are easily manageable by any Excel user, just requiring a little training.

The most important step is making sure that your data is organized following a database layout as shown in Figure 2 (organized in columns, consistent naming, data within acceptable ranges, sensible data without errors).

Once set up to your satisfaction, Pivot tables can be used to generate dynamic graphs, updated each time the Pivot table is run. These can show data over several seasons, allowing the manager to evaluate trends which can be really helpful in Hatchery troubleshooting allowing the manager to compare different banks of setters/hatchers, individual machines as well as the seasonal variability which can so affect hatchery performance.

Once data driven performance management is implemented, it is possible to set targets, look at data as whole, monitor performance, analyze trends and differences and implement improvements in specific aspects which are affecting Hatchery performance.

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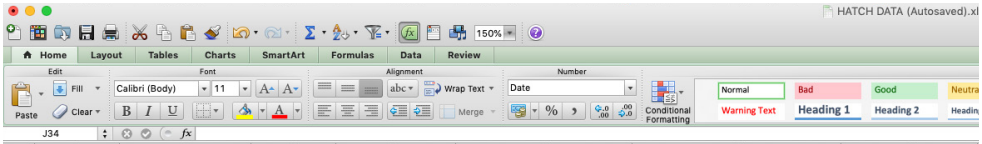
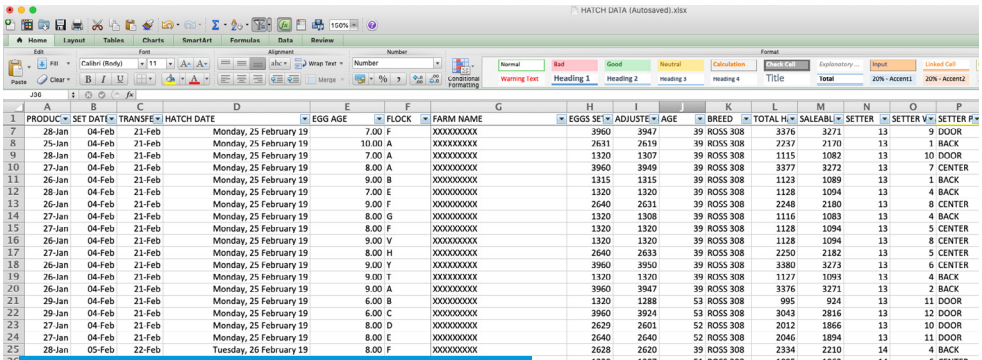
Making the most of your hatchery data. Using pivot tables to boost hatchery management *Continued*



AGE	(All)					
			Values			
FLOCK	SETTER POSITION	EGG AGE	Sum of EGGS SET	Sum of Total Hatchability	Average of STD HATCHABILITY	Average of CULLS%
A	BACK	9.00	3960.00	85.53	86.95	3.21
		10.00	2631.00	85.41	86.95	3.09
	CENTER	8.00	3960.00	85.52	86.95	3.21
		9.00	1320.00	83.78	85.27	3.11
	DOOR	6.00	3570.00	69.03	80.00	8.79
		7.00	1320.00	85.31	86.12	3.05
A Total			16761.00	81.87	85.37	4.08
B	BACK	9.00	1315.00	85.40	86.95	3.12
	DOOR	6.00	4950.00	71.31	80.16	8.30
B Total			6265.00	74.31	82.42	6.57
C	DOOR	6.00	3960.00	77.55	80.31	8.06
		10.00	4560.00	88.96	80.00	4.20
C Total			8520.00	83.68	80.16	6.13
D	DOOR	8.00	2629.00	77.35	80.91	7.82
		10.00	2640.00	88.85	80.00	4.10
D Total			5269.00	83.13	80.46	5.96
E	BACK	7.00	1320.00	85.45	86.95	3.11
		9.00	3960.00	85.52	86.95	3.21
	DOOR	8.00	2640.00	77.50	80.91	8.03
					84.94	4.78

Figure 1 *Example of how a Pivot table can combine different data.*



PRODUC	SET DATE	TRANSFE	HATCH DATE	EGG AGE	FLOCK	FARM NAME	EGGS SE	ADJUSTE	AGE	BREED	TOTAL H	SALEABL	SETTER	SETTER V	SETTER P
28-Jan	04-Feb	21-Feb	Monday, 25 February 19	7.00	F	XXXXXXXXX	3960	3947	39	ROSS 308	3376	3271	13	9	DOOR
25-Jan	04-Feb	21-Feb	Monday, 25 February 19	10.00	A	XXXXXXXXX	2631	2619	39	ROSS 308	2237	2170	13	1	BACK
28-Jan	04-Feb	21-Feb	Monday, 25 February 19	7.00	A	XXXXXXXXX	1320	1307	39	ROSS 308	1115	1082	13	10	DOOR
27-Jan	04-Feb	21-Feb	Monday, 25 February 19	8.00	A	XXXXXXXXX	3960	3949	39	ROSS 308	3377	3272	13	7	CENTER
26-Jan	04-Feb	21-Feb	Monday, 25 February 19	9.00	B	XXXXXXXXX	1315	1315	39	ROSS 308	1123	1089	13	1	BACK
28-Jan	04-Feb	21-Feb	Monday, 25 February 19	7.00	E	XXXXXXXXX	1320	1320	39	ROSS 308	1128	1094	13	4	BACK
26-Jan	04-Feb	21-Feb	Monday, 25 February 19	9.00	F	XXXXXXXXX	2640	2631	39	ROSS 308	2248	2180	13	8	CENTER
27-Jan	04-Feb	21-Feb	Monday, 25 February 19	8.00	G	XXXXXXXXX	1320	1308	39	ROSS 308	1116	1083	13	4	BACK
27-Jan	04-Feb	21-Feb	Monday, 25 February 19	8.00	F	XXXXXXXXX	1320	1320	39	ROSS 308	1128	1094	13	5	CENTER
26-Jan	04-Feb	21-Feb	Monday, 25 February 19	9.00	V	XXXXXXXXX	1320	1320	39	ROSS 308	1128	1094	13	8	CENTER
27-Jan	04-Feb	21-Feb	Monday, 25 February 19	8.00	H	XXXXXXXXX	2640	2633	39	ROSS 308	2250	2182	13	5	CENTER
26-Jan	04-Feb	21-Feb	Monday, 25 February 19	9.00	Y	XXXXXXXXX	3960	3950	39	ROSS 308	3380	3273	13	6	CENTER
26-Jan	04-Feb	21-Feb	Monday, 25 February 19	9.00	T	XXXXXXXXX	1320	1320	39	ROSS 308	1127	1093	13	4	BACK
26-Jan	04-Feb	21-Feb	Monday, 25 February 19	9.00	A	XXXXXXXXX	3960	3947	39	ROSS 308	3376	3271	13	2	BACK
29-Jan	04-Feb	21-Feb	Monday, 25 February 19	6.00	B	XXXXXXXXX	1320	1288	53	ROSS 308	995	924	13	11	DOOR
29-Jan	04-Feb	21-Feb	Monday, 25 February 19	6.00	C	XXXXXXXXX	3960	3924	53	ROSS 308	3043	2816	13	12	DOOR
27-Jan	04-Feb	21-Feb	Monday, 25 February 19	8.00	D	XXXXXXXXX	2629	2601	52	ROSS 308	2012	1866	13	10	DOOR
27-Jan	04-Feb	21-Feb	Monday, 25 February 19	8.00	E	XXXXXXXXX	2640	2640	52	ROSS 308	2046	1894	13	11	DOOR
28-Jan	05-Feb	22-Feb	Tuesday, 26 February 19	8.00	F	XXXXXXXXX	2628	2620	39	ROSS 308	2334	2210	14	4	BACK
							1320	1307	51	ROSS 308	1095	1062	14	6	CENTER

Figure 1 *Example of a good data base layout for Excel.*

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