

WGJ-8 Automatic Poultry Weighing System

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JOTAFAN

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energy efficient lighting systems

controllers for breeding establishments



automatic weighing systems



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Why is it worth to install the automatic weighing system?

Continuous control of the flock breeding process

- ❁ Automatic and continuous weighing of the flock enables to detect immediately any irregularities connected with sickness, wrong feed or many others that are manifested with weight increase disorder.
- ❁ The WGH-8 system can weigh hens, turkeys, geese and other bird species in various kinds of breeding (fattening, reproduction).


Reduction of stress level connected with weighing

- ❁ In case of automatic weighing such factors as catching, hanging upside down and the like do not exist.
- ❁ Pans are part of poultry house 'landscape' and they are willingly 'visited' by birds that have already got used to them and treat them as a toy that increases the number of weighing acts.

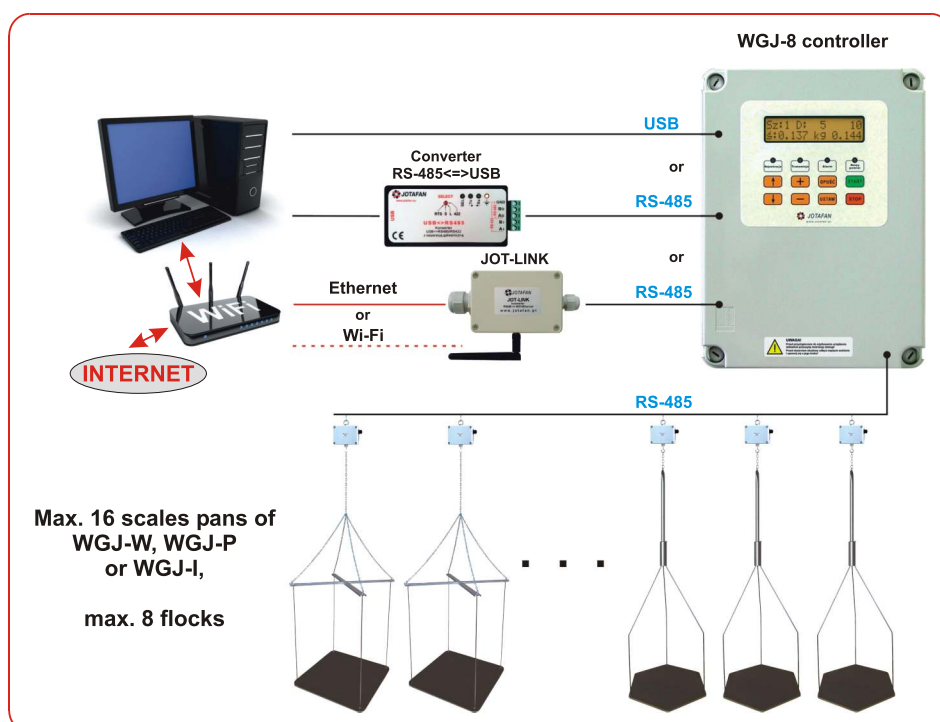
Safety

- ❁ Recording up to several hundred weighing acts per hour during normal bird activity (during the light day).
The possibility of setting an alarm threshold: in case of lowering the intensity of weighing acts below adjusted level or lowering the flock evenness an alarm is generated (too low liveliness can be caused by the failure of ventilation or lighting system, too fast increase or decrease of temperature or sickness).
- ❁ Reduction of spreading sickness or parasites between flocks by workers during weighing process.

How does the WGJ-8 automatic weighing system work?

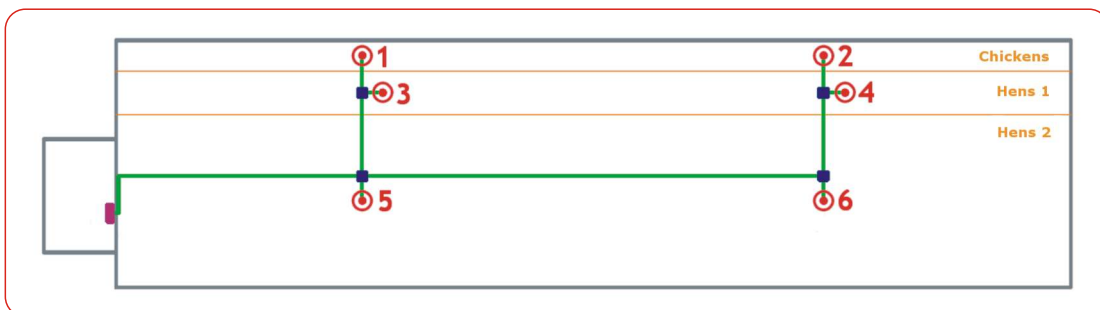
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 Each scales pan controls continuously the value and changes in weight on the weighing platform and it records the probable bird weight (if it is in adjusted range). Thanks to this solution the system can record simultaneously and continuously weighing acts on all scales pans within few seconds intervals between birds going on and out of pan platform. Each bird is weighted independently despite the fact that there are other birds, droppings and litter on the platform. The WGJ-8 controller records each weighing in its memory together with date and time. It is possible to record data up to 1000 days of breeding for each scales pan attached to the controller on the assumption of 9000 weighing acts on average every day on each scales pan. Up to 16 scales pans can be connected to the controller. They can be classified in 'flocks'- up to 8 flocks.

The weighing system scheme.



An example of scales pans arrangement and classification in the poultry house: reproductory flock breeding








- 🌸 Chickens
- 🌸 Hens 1 (selected light hens)
- 🌸 Hens 2 (others)



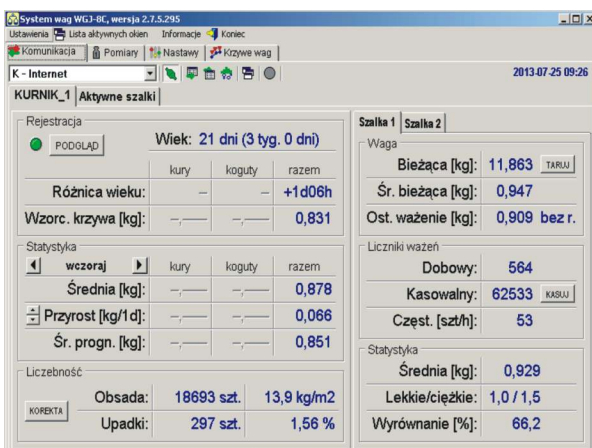
WGJ-8 automatic weighing system characteristics

- 🌸 One controller operates up to 16 scales pans; each of them is recorded independently and statistical data is shown (i.a. an average, evenness)
- 🌸 Scales pans can be classified in 'flocks'; the possibility of defining and operating up to 8 flocks or poultry houses with the usage of one WGJ-8 controller.
- 🌸 Measurement recording up to 1000 days of breeding for each scales pan independently; statistics for each 'flock' or scales pan.
- 🌸 Maximum acceptable load of scales pans WGJ-W: 32kg, WGJ-P: 80kg, WGJ-I: 65kg
- 🌸 Resolution of scales pan measurement: WGJ-W: 1g, WGJ-P and WGJ-I: 2g

WGJ-8 automatic weighing system characteristics

-  Sex distinction (on basis of a weighed bird)
-  Current reading of average, growth and easy access to these parameters from previous days of breeding.
 The possibility of displaying the growth in range from 1 to 7 days (comparison of days without feed in reproductive flock breeding)
-  Displaying the calendar age and so called 'weight flock age' that is calculated by reference of current average to standard curve for given breed; The controller's memory contain standard curves for a broiler and parent hen flocks, i.a. ROSS-308, COBB-500, F-15 and FLEX, as well as for turkeys: BIG-6 and BIG-9 and for geese. It is possible to define personal standard curves.
-  Statistical analysis of recorded bird measurements for each scales pan enables to define i.a.:
 - average weight in particular day of growth
 - flock evenness; the number of weighing acts
-  Continuous automatic control of correctness of the weighing system.
-  Alarms in case of irregularities in flock behaviour
-  Software for PC computers: to communicate with WGJ-8 system; the possibility of connection several controllers to the computer- central, remote control also via INTERNET (options) as well as analysis and visualization of measurements (tables, charts).

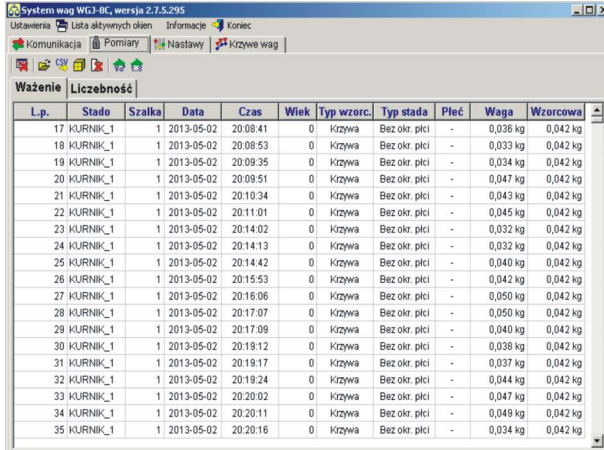
Computer program- communication panel with WGJ-8



Rejestracja			
Wiek: 21 dni (3 tyg. 0 dni)			
	kury	koguty	razem
Różnica wieku:	—	—	+1d06h
Wzorc. krzywa [kg]:	—	—	0,831
Statystyka			
wczoraj			
	kury	koguty	razem
Średnia [kg]:	—	—	0,878
Przyrost [kg/1 d]:	—	—	0,066
Śr. progn. [kg]:	—	—	0,851
Liczebność			
Obsada:	18693 szt.	13,9 kg/m2	
Upadki:	297 szt.	1,56 %	
Szałka 1 Szałka 2			
Waga			
Bieżąca [kg]:	11,863	TARU	
Śr. bieżąca [kg]:	0,947		
Ost. ważenie [kg]:	0,909	bez r.	
Liczniki wazén			
Dobowy:	564		
Kasowalny:	62533	KASU	
Częst. [szt/h]:	53		
Statystyka			
Średnia [kg]:	0,929		
Lekkie/ciężkie:	1,0 / 1,5		
Wyrównanie [%]:	66,2		

The communication panel with WGJ-8 enables continuous monitoring of system operation, readings of current weighed amounts, other data and all statistics for particular poultry houses and scale pans.

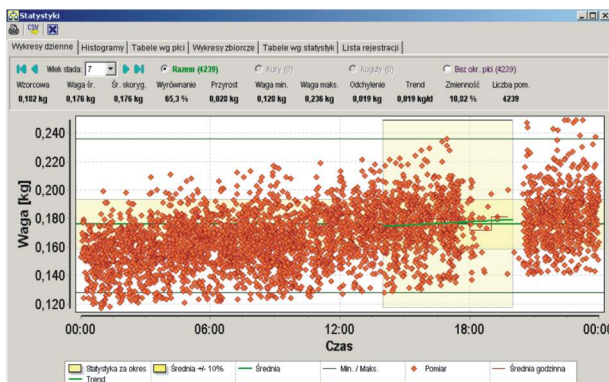
Computer program- data panel (table of weighing acts)



L.p.	Stado	Szalka	Data	Czas	Wiek	Typ wzorc.	Typ stada	Płeć	Waga	Wzorcowa
17	KURNIK_1	1	2013-05-02	20:08:41	0	Krzywa	Bez okr. pici	-	0,036 kg	0,042 kg
18	KURNIK_1	1	2013-05-02	20:08:53	0	Krzywa	Bez okr. pici	-	0,033 kg	0,042 kg
19	KURNIK_1	1	2013-05-02	20:09:35	0	Krzywa	Bez okr. pici	-	0,034 kg	0,042 kg
20	KURNIK_1	1	2013-05-02	20:09:51	0	Krzywa	Bez okr. pici	-	0,047 kg	0,042 kg
21	KURNIK_1	1	2013-05-02	20:10:34	0	Krzywa	Bez okr. pici	-	0,043 kg	0,042 kg
22	KURNIK_1	1	2013-05-02	20:11:01	0	Krzywa	Bez okr. pici	-	0,045 kg	0,042 kg
23	KURNIK_1	1	2013-05-02	20:14:02	0	Krzywa	Bez okr. pici	-	0,032 kg	0,042 kg
24	KURNIK_1	1	2013-05-02	20:14:13	0	Krzywa	Bez okr. pici	-	0,032 kg	0,042 kg
25	KURNIK_1	1	2013-05-02	20:14:42	0	Krzywa	Bez okr. pici	-	0,040 kg	0,042 kg
26	KURNIK_1	1	2013-05-02	20:15:53	0	Krzywa	Bez okr. pici	-	0,042 kg	0,042 kg
27	KURNIK_1	1	2013-05-02	20:16:06	0	Krzywa	Bez okr. pici	-	0,050 kg	0,042 kg
28	KURNIK_1	1	2013-05-02	20:17:07	0	Krzywa	Bez okr. pici	-	0,050 kg	0,042 kg
29	KURNIK_1	1	2013-05-02	20:17:09	0	Krzywa	Bez okr. pici	-	0,040 kg	0,042 kg
30	KURNIK_1	1	2013-05-02	20:17:07	0	Krzywa	Bez okr. pici	-	0,038 kg	0,042 kg
31	KURNIK_1	1	2013-05-02	20:19:17	0	Krzywa	Bez okr. pici	-	0,037 kg	0,042 kg
32	KURNIK_1	1	2013-05-02	20:19:24	0	Krzywa	Bez okr. pici	-	0,044 kg	0,042 kg
33	KURNIK_1	1	2013-05-02	20:20:02	0	Krzywa	Bez okr. pici	-	0,047 kg	0,042 kg
34	KURNIK_1	1	2013-05-02	20:20:11	0	Krzywa	Bez okr. pici	-	0,049 kg	0,042 kg
35	KURNIK_1	1	2013-05-02	20:20:16	0	Krzywa	Bez okr. pici	-	0,034 kg	0,042 kg

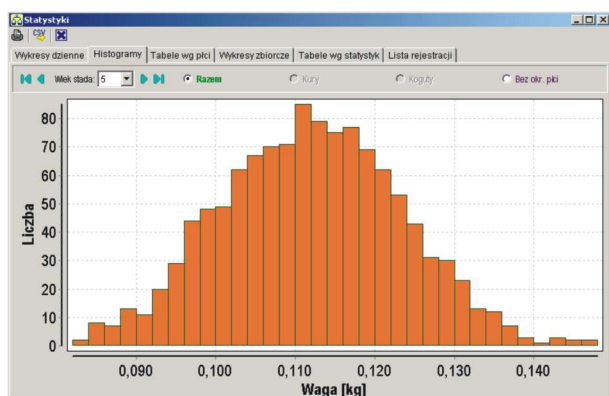
The data panel (table of weighing acts) presents all weighing parameters that happen in the poultry house. Each weighing act is recorded individually together with date, time and current standard curve.

Computer program- graphic presentation of weighing acts



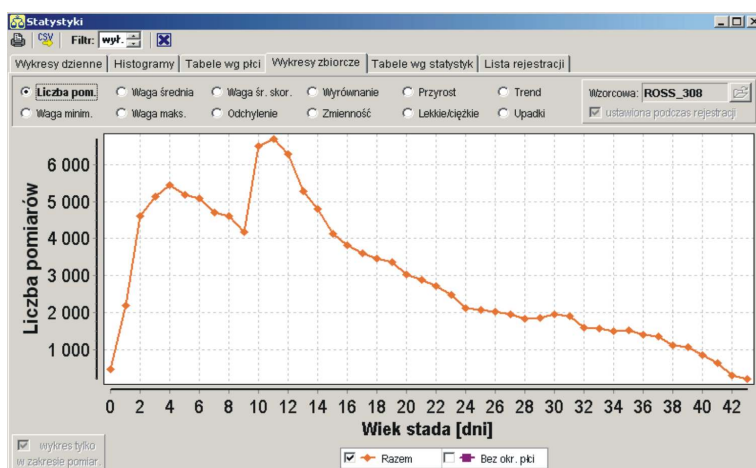
The bookmark **Daily charts** enables a detailed presentation of weighing acts within 24 hrs. It is possible to observe bird weight increase and noticeable break in the light cycle from 6 pm to 8 pm.

Computer program- histograms (number of weighing acts in weight ranges)



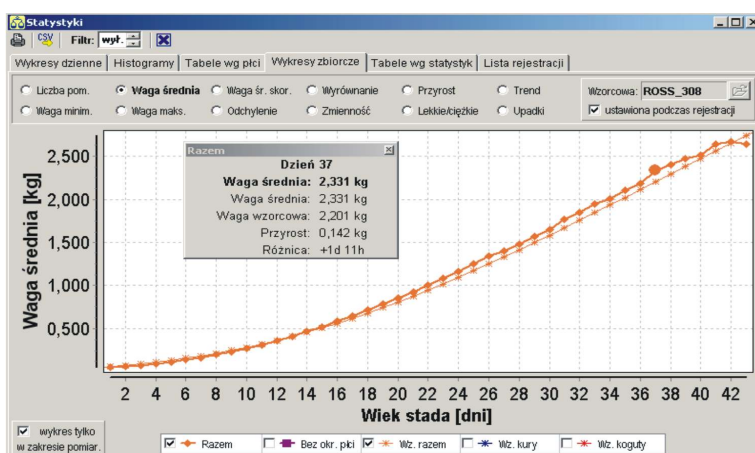
The bookmark **Histograms** presents the number of weighing acts in weight ranges from the lightest to the heaviest weighed birds in a chosen day. The 'bell' shape of the curve means the correct picture of the flock. We observe the biggest number of weighing acts around average weight (here around 115kg), the smallest number is on the curve endings (the lightest and heaviest birds).

Computer program number of weighing acts during breeding process



In the bookmark **Summary charts** it is possible to display the chart *Weighing number* in individual days of breeding. This chart tends to diminish because of weight increase and reduced liveliness of birds at the ending days of breeding. The maximum number of weighing acts for a broiler happen at the turn of 1 and 2 week of breeding.

Computer program- average weight (and standard curve)



The curve of average weight in comparison to the standard curve represents the true average weight of birds with respect to their standard. In the smaller window detailed parameters for a chosen chart point can be displayed.



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