

FarmOnline®

Farm Management for Pig Production





Global growth creates high demand

SKOV is an international market leader within climate control and production monitoring for animal production and has more than 40 years' experience. We develop and produce systems and components for ventilation systems, house air cleaning and production control.

The global increase in population growth and wealth has increased the demand for meat. It is, therefore, important to optimise production while at the same time safeguarding the welfare of the animals. Thus, productivity and animal welfare play a vital role in modern pig production. With the growing demand, the producers' need to be able to monitor and control their production increases. SKOV has developed the management system FarmOnline® which is used by the ever-larger pig farms. FarmOnline® offers the pig producer a wide range of options for monitoring and controlling his farms, irrespective of their geographical distribution. FarmOnline makes it possible, among other things, to regulate the climate in the individual houses, receive alarms and

exchange strategies between the houses as well as with consultants or SKOV. A FarmOnline® system allows the producer to extract numerous climate data from

each house computer and use it to prepare in-depth analyses as well as to take steps to optimise production.



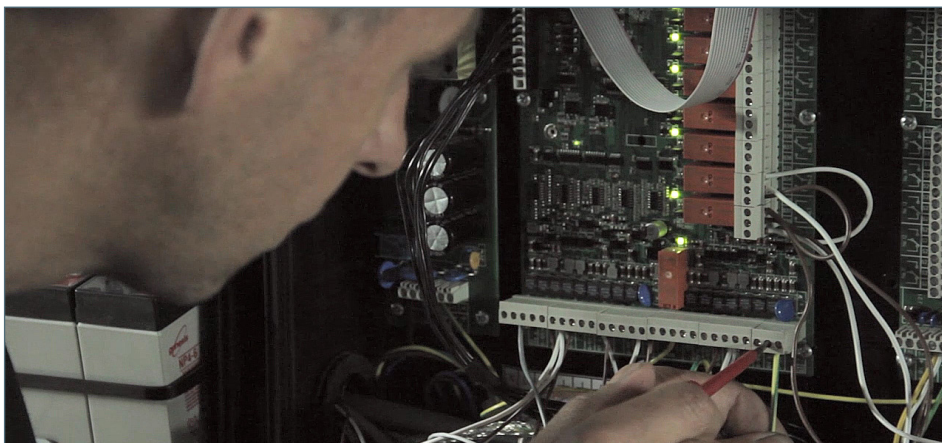


Data without delay

For the ever-larger pig producers with production on sites scattered over a large geographical area, ensuring a complete overview of operations is essential. FarmOnline® can be used together with house computers in an existing network and SKOV's new generation of house computers features integrated LAN Ethernet. Therefore, no

data has to be collected between house computers and a PC, which ensures a higher degree of data validity and gives the pig producer more time to take care of his pigs. This also enables the producer to react immediately to alarms by, for instance, changing the setup of the house computer via FarmOnline®. In case of an alarm, the pig producer can

intervene immediately in a qualified way. Immediate action may ensure the welfare of the pigs as well as reduce or completely prevent financial losses.



SKOV delivers the whole package

The hardware to be used to build a network in a pig house must be made of resistant materials. SKOV has developed hardware capable of resisting house environments. Therefore, we also offer to deliver and install cabled as well as wireless networks to avoid malfunctioning or breakdowns.



Tabular summary including status and essential key figures

| | | | | | | | | |
|------------------------|--------|---------|-----|---------|----------|-----------------|-------------------|-----------------------|
| Survey (Mogens Hjorth) | | | | | | | | |
| Where | Status | Animals | Day | Temp | Humidity | Ventilation req | Water/last hour 1 | Water/animal/last 24h |
| Mogens Hjorth | | | | | | | | |
| Nr 10 | | | | | | | | |
| Løbestald | | 225 | --- | 18.4 °C | --- | 58.1 % | | |
| Farestald | | 80 | 905 | 18.6 °C | --- | 24.1 % | | |
| Klima 1 | | 182 | 48 | 18.2 °C | 47.8 %RH | 53.9 % | 17.5 l | 1.7 l |
| Klima 2 | | 271 | 34 | 19.2 °C | 63.4 %RH | 46.1 % | 7.5 l | 0.8 l |
| Klima 3 | | 276 | 19 | 21.2 °C | 30.2 %RH | 25.7 % | 40.0 l | 2.7 l |
| Klima 4 | | 205 | 10 | 22.7 °C | 60.9 %RH | 15.1 % | 27.5 l | 2.3 l |
| Slagtestald | | 530 | 768 | 18.6 °C | --- | 45.4 % | | |
| Poltestald | | 300 | 471 | 18.2 °C | 55.6 %RH | 60.2 % | | |
| Nr 17 | | | | | | | | |
| Klima 1 | | 104 | 15 | 22.2 °C | 59.7 %RH | 18.7 % | 38.0 l | 4.4 l |
| Klima 2 | | 173 | 23 | 20.6 °C | 66.1 %RH | 14.0 % | 3.0 l | 0.8 l |
| Klima 3 | | 160 | 29 | 21.0 °C | 67.6 %RH | 15.3 % | 7.0 l | 1.7 l |
| Klima 4 | | 150 | 37 | 19.2 °C | 69.0 %RH | 29.0 % | 5.0 l | 3.2 l |
| Klima 5 | | 175 | 44 | 20.2 °C | 66.2 %RH | 42.1 % | 24.0 l | 3.4 l |
| Klima 6 | | 151 | 50 | 19.2 °C | 63.8 %RH | 41.6 % | 15.0 l | 3.0 l |

User-friendly and intuitive

Today, house computers are advanced units, featuring numerous options and settings. It can, therefore, be difficult to see whether an employee has unintentionally changed the settings for a house. Thanks to FarmOnline®, deviations from planned strategies are clearly shown to make it easy for the producer to ensure that all his houses operate according to the planned strategy.

FarmOnline® is able to import the producer's own photos and drawings of the farm and sections, ensuring high graphic recognisability in the program. So-called hotspots can be added to the outline views to show the key values for inside temperatures, alarm status, etc. Adding graphic features for all levels (farm, house, section) will facilitate navigation in the program, providing the pig producer with an overview of the situation as well as fast and accurate localisation of deviations.

The FarmOnline® system enables table viewing of key values and alarm and house statuses for the entire farm and for individual sections. The producer chooses which values to be included in the overview function.



FarmOnline® characteristics

- Live monitoring of an unlimited number of house computers all over the world via the internet
- Clear data overview – graphically or in tabular form
- Detailed alarm log, history and analysis
- FarmOnline® app for smartphones
- Enables the user to access SKOV house computers and change the settings



Using icons and graphic elements to a great extent, FarmOnline® provides the user with a quick overview of the current display and navigation to the essential data in a given situation.



Many features in FarmOnline®

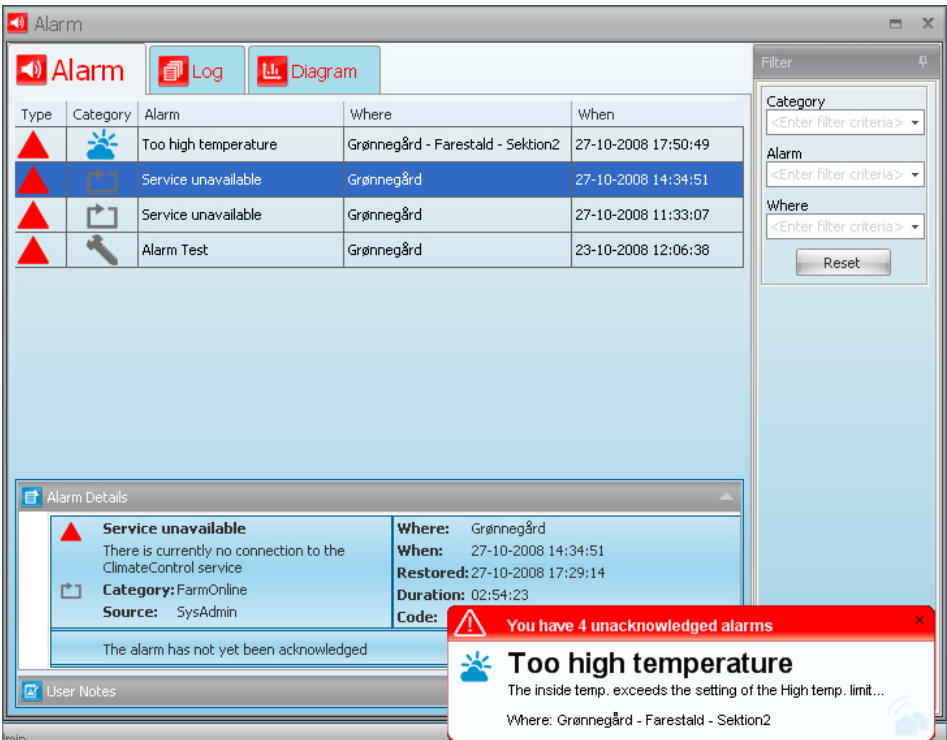
A FarmOnline® system enables the producer to select specific key values for temperature, humidity, ventilation, cooling and heating and to display them in a clear graphic form which also allows settings to be changed directly.

The efficient Climate History function of FarmOnline® enables data storage for up to five years. Several search criteria enable requested data to be extracted and indicated in the form of curves.

Alarm features increase the safety of the pigs

Immediate action is essential to the safety of the pigs in case of operational problems in the house. Therefore, FarmOnline® is also an investment in the safety of the pigs as the producer will be able to see alarms appearing in a pop-up window, no matter which program is active on the PC.

FarmOnline® displays alarms as red markings. Simply click the marking to open an alarm window with alarm details. Users authorised for this may acknowledge the alarm. Notes on alarm



Alarm overview with a pop-up window

causes, troubleshooting, etc. can also be added to each alarm. In addition, it is possible for the farm manager to analyse the occurrence of historic alarms, thus adding to the experience of the users. FarmOnline® can transmit alarms via text messaging

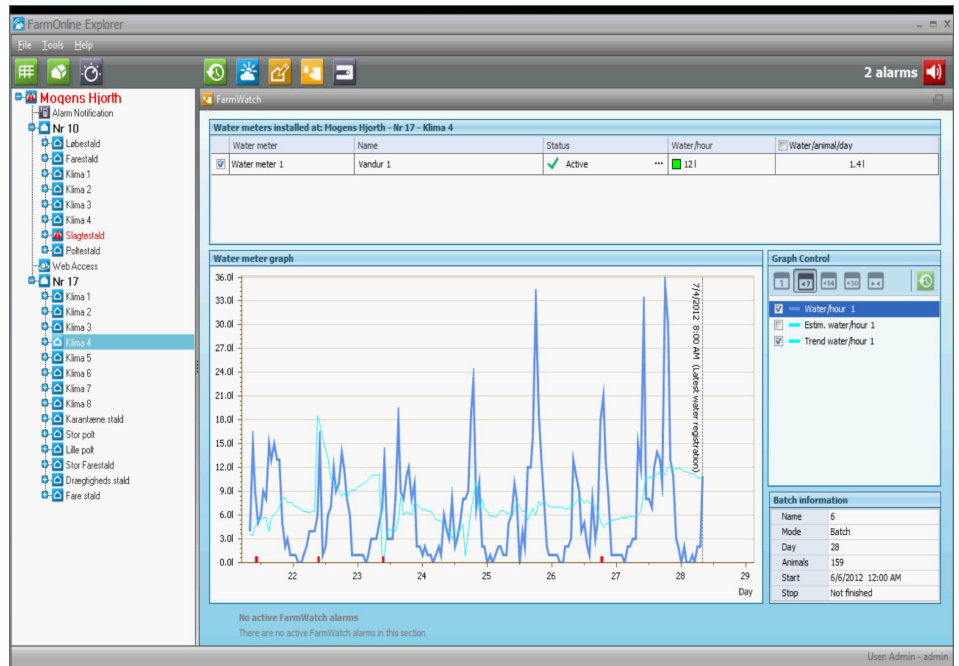
or email. At the user's option, selected alarms can be transmitted from specific houses as text messages or emails to selected recipients.

Discover diseases based on the pigs' water consumption

Studies show that diseases can often be discovered up to 12-24 hours before symptoms become visible. For 24 hours up to the outbreak of a disease, pigs will drink more water than they usually do; this way, it is possible to discover and correct any operational irregularities earlier than it would otherwise have been possible.

FarmWatch® gives you peace of mind

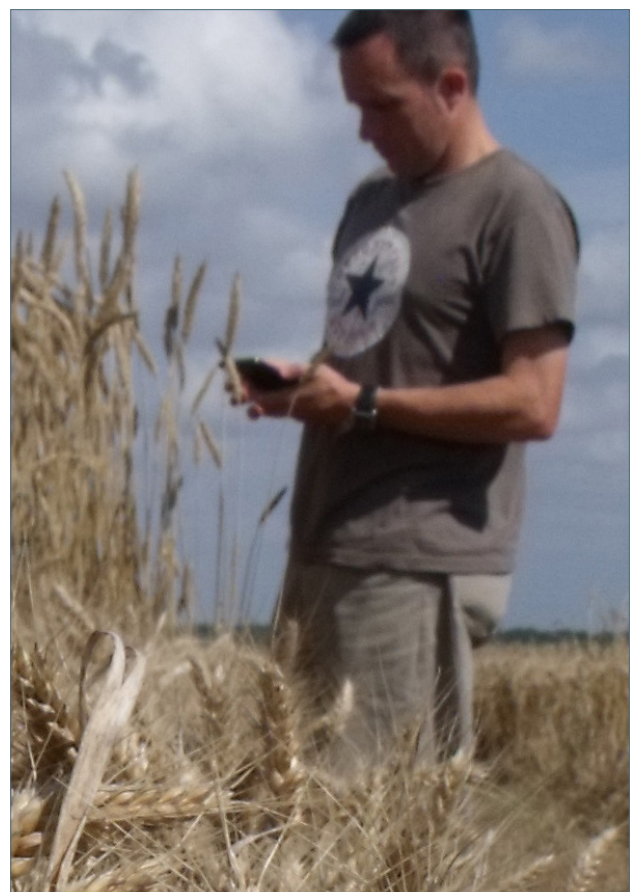
FarmWatch® is used for the production of finishers and makes it possible to monitor water consumption continually in finisher houses. FarmWatch® records water consumption every hour and notice about any deviation from normal consumption is given via a text message and an alarm view in FarmOnline. Immediate action means that the pigs can be treated faster, and often it is also possible to identify and combat diseases with less effort.



FarmWatch® records water consumption every hour and notice about any deviation from normal.

Keep an eye on the house from your smartphone

Internet access is all you require to access your house computers with a SKOV FarmOnline® app for smartphones, no matter where in the world the computers are. This enables the producer to see production and climate data as well as alarms, thereby minimising the risk of losses in case of a system breakdown. SKOV's mobile app can be downloaded to Android, iPhone and Windows Phone.



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Forhandler



Climate for Growth