

SCROFA+

WHAT YOU ALWAYS WANTED TO KNOW ABOUT PIGS

www.weda.de

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We care about pigs

+++ WEDA Novelties 2018 +++ WEDA Dust Control +++ WEDA Voice Control +++



EuroTier 2018

+++ WEDA Novelties 2018 +++ WEDA Valve PV-C4 +++ WEDA FiT Pen +++

Again, two years have passed by so quickly since the last EuroTier. Now it will not be long before the leading trade fair for professional animal husbandry opens its doors from

13 to 16 November 2018 in Hanover.

Of course, as a well-known specialist for pig production, we have not been inactive for the last two years, and we wor-

ked hard to be able to present innovative new products to our customers and interested parties at this trade fair. From our new WEDA Voice Control, which allows a pure

voice control via Alexa, to the new freedom farrowing system FiT. The FiT pen has a built-in control corridor, and offers even more animal welfare and safety at work.

Visit us in Hall 17, Stand D04.

To be continued on pages 2 and 3

Feeding technology awarded

Highest award for WEDA at this year's SPACE

Great pleasure all along the line: Weda was awarded in September for its feeding valve PV-4 with the prestigious 3 innovation stars in the category of pig production.

The coveted prize was awarded at SPACE, the leading French trade fair for modern animal husbandry in Rennes, France.

The PV4 is a feeding valve for dosing liquid feed

into the corresponding troughs. In contrast to the products of our market companions, the outlet of the valves produced by Weda is at the bottom by default. Heavy feed ingredients do not remain in the pipes, and a residue-free feeding is likely. Even at low flow rates, particularly relevant for micro-dosage in the farrowing area, the feed is

evenly dosed so that all animals receive the same feed.

The award once again proves that the development of Weda technology and the desire to improve and support human beings and animals are also recognized.



Remy Noebel presents the 3 stars award.

EuroTier 2018

Novelties at a glance



EuroTier[®]
First in animal farming.
13. – 16. November 2018
Hannover

Visit us!
Hall 17
Stand D04

Visit us at the EuroTier in hall 17 on stand D04 and convince yourself of these five novelties that we present here in detail:

WEDA EuroTier-Novelties:

Freedom farrowing System FiT

Maximum animal welfare and safety

There are already a number of different freedom farrowing system pens, but no one is like this: with the new FiT pen, WEDA is launching a practicable pen concept on the market, which ensures significantly more animal welfare. Compared to conventional types of pens, the FiT pen is characterized above all by the integrated control corridor and a new arrangement of functional areas.

From the control corridor, all important work can

be carried out on the trough as well as on the animals. There is almost no need for temporary fixing of the sow. At the same time, the stable

The practicable pen for sows

staff is protected against attacks from the sow.

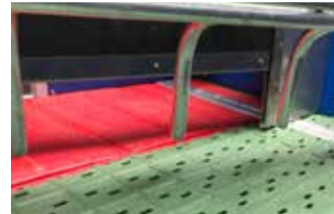
From the integrated control corridor, the staff has a very good overview of the pen, as well as the side and back of the sow. The staff can enter the pen quickly through a special door without a prior fixation of the

sow, for example, to assist the delivery or to save a piglet from being crushed.

The piglet protection cage is mounted in the FiT pen in a way that the air supply for the sow is exactly in the front of the trough. Sows like to adjust their lying position so that they can put their nose into the fresh air.

The triangular shape on the front of the piglet protection cage automatically prevents the sow from rolling over quickly. Position changes can, therefore, be slow and the piglets have enough time to get to safety. The rolling of the sow is severely restricted, saving the life of many pigs.

The pen also has a piglet nest, with which the piglets can be temporarily fixed, for example, if the animals need medical treatment.



Piglet nest with catching device

Special features and advantages at a glance:

- Safe operation of all areas from the corridor
- Easy cleaning of troughs (e.g., swivelling trough) and drinkers
- Easy moving in and moving out
- Piglet nest with catching device
- Suckling piglet feeding system Nutrix is at the control corridor
- Good overview of the pen and sow. Easy access to the animal thanks to the special pen structures



Thanks to the integrated control corridor, troughs and drinkers can be easily reached without the need to enter the pen. This means a high degree of safety for the staff.

- Reduction of losses due to crushing (increased animal welfare, decreased animal losses)
- In the FiT pen the sow is not standing with its head in front of the wall, but it has a good overview of the pig house. This makes it less jumpy.
- Higher level of hygiene, as the stable staff does not have to enter the pen.
- Less time effort and amount of work for the staff

Further information about the FiT pen is available in the interviews on pages 5-7.

WEDA EuroTier-Novelties:

WEDA Valve PV-C4



PV-C4 with activated LED

Transparent and durable

After many years of specific further development in liquid feeding, Weda presents the „PV-C4“, a new, even better valve for liquid feeding.

The uniqueness of the PV-C4 is its vertical outlet, which ensures the flow of heavy feed components smoothly and thus allows non-residue feeding.

The transparent lid makes it possible to visualize the functioning of the valve and to detect malfunctions timely. And: due to new special material composition, the valve is even more durable than before.

Thanks to the transparent valve plug, the current switching state of the valve is clearly visible from all sides due to the integrated LED.

The acid- and alkali-

resistant valve diaphragm is made of high-tech fabric, which ensures a longer service life of the valve. In addition, this enables high operating frequencies for the dosing of small quantities without heavy wear. In the center of the membrane, a new sealing lip is fitted to allow a safe

Always a good view

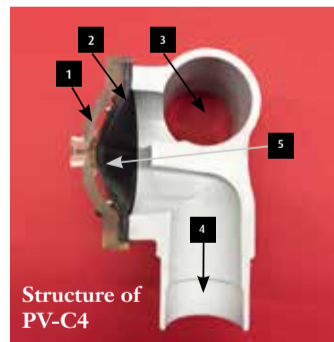
closure of the valve despite lower air pressure.

In contrast to competitor products, the outlet of the PV-C4 is at the bottom of the valve by default. This has the advantage that the heavy feed components (mineral nutrients) do not remain in the pipeline. The feed is evenly dosed even at low flow rates, so that all animals get exactly the same amount of feed.

Special features and advantages at a glance:

- Durable
- Easy control of the valve due to the transparent cover

- Non-residue flow of heavy feed elements due to the vertical valve outlet, even with low dosage of feed
- Hardly any wear at high operating frequencies



Structure of PV-C4

- 1 Transparent lid
- 2 Special membrane
- 3 Feed pipe
- 4 Downpipe
- 5 Sealing lip



PV-C4 cross-section

WEDA EuroTier-Novelties:

WEDA Dust Control

The solution for a nearly dust-free feeding kitchen

In today's pig feeding, feed tanks are generally aerated and vented through a pipe. As a result, the flour dust can escape through the vent pipe and thereby reach the outside of the tank, the feeding kitchen

Weda is now launching the „Dust Control“, a solution that reduces the development of dust during feed dosing by 95%. How does it work? Through the use of a new fastening, which causes a pressure equalization in the feed tank.

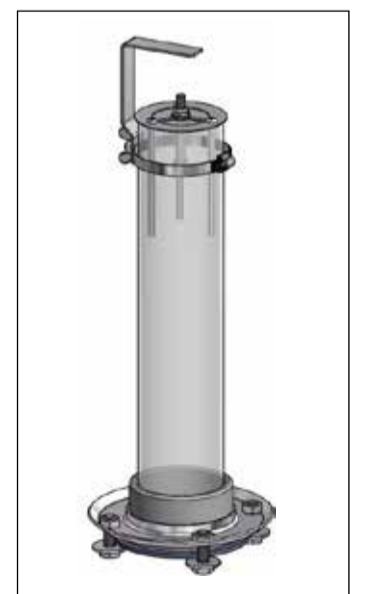
How the Dust Control fastening works:

The Dust Control has a metal disc with three or more „legs“. This disc lies on the vent pipe. During the dosing of dry components, the fastening is shut. As a result, significantly lower amounts of the flour dust that develops during dosing, reach the environment. The dust stays almost completely in the feed tank.

When dosing liquids quickly, the air in the closed

tank is compressed, causing overpressure. The air in the tank tends to escape through the vent pipe and the air pressure is high enough to lift the disc.

Thus, the necessary vo-



Closure closed

lume flow is achieved for pressure compensation. The „legs“ prevent the metal disc from falling down. At the top of the vent pipe, a limiter is also attached, so that the disk is not pushed out of the pipe at high overpressure.

To be continued on page 3

When emptying the tank, the air must flow in. Otherwise, a negative pressure is generated. For this reason, holes are cut in the

ve pressure, the small disc is pulled down against the spring force and unblocks the holes in the closure disc on the top.

The air from the feeding kitchen can now enter the tank.

As soon as the emptying process stops, the negative pressure decreases. The spring pushes the small disc back up and closes the holes. Finally, the feed tank is tight again.

The perfect fastening

disc which is lying on the vent pipe. These holes are in turn closed with a smaller disc and a spring from below. Due to the negati-

Special features and advantages at a glance:

- Reduction of dust development in the feed preparation area by app. 95%
- This led to a marked reduction of labor and time required for the barn staff, since the feed preparation area must be cleaned much less frequently.
- Significantly reduced health burden of the stable staff due to the high dust reduction
- Low maintenance
- Easy to clean
- Hygienic
- Functionally safe



WEDA Dust Control

WEDA EuroTier-NoveltY: WEDA Voice Control

Get all the information by voice

Weda is well-known for progressive developments and competence in the pig production industry. Weda proves this with the new Voice Control, an innovative linguistic control solution for feeding systems. The Voice Control is the first integrated voice control system in feeding technology. Now all essen-

during harvesting.

With the WEDA Voice Control, the farmer no longer has to interrupt driving to start his mobile feeding app and, for example, to check the silo stocks. The query can easily be done while driving.

The work of the farmer will become much easier, as information can be

Special features and advantages at a glance:

- Verbal query of information from the feeding computer Excellent 4PX via voice control Alexa
- Query of information regardless of your own location
- Significant reduction of time and effort for the farmer
- Use via Echo Dot, Echo Show and Amazon Alexa App



Echo Dot

tial information from the Weda feeding computer Excellent 4PX can be retrieved verbally with Alexa, the voice control of Amazon. This allows the farmer to retrieve the information at any time, for example, on the tractor or in the car.

And the best: Weda is the first company in the industry to offer a feeding system with integrated voice

Intelligent solution en route

control.

The special feature of the Voice Control is the direct connection between Alexa and the WEDA feeding computer Excellent 4PX.

The information is retrieved by simple voice control (e.g., „Alexa, WEDA Excellent, what are the silo stocks?“). The user has both hands free, which is beneficial especially on the road or on the tractor

queried regardless of the location. For example, if the farmer has forgotten to check the silo stock

Always well informed

during his last inspection of the farm, he does not have to turn around and drive back to the farm, but he can retrieve the information by voice using Alexa. This saves the farmer a lot of time and reduces his workload.

About 20 Alexa commands are preset by default. Here are some examples:

- Alexa, WEDA Excellent, what is the status of the unit?
- Alexa, WEDA Excellent, which error is reported?
- Alexa, WEDA Excellent, which silo is empty next?
- Alexa, WEDA Excellent, which silos have fallen below the minimum amount?
- Alexa, WEDA Excellent, how many animals are in the stock?
- Alexa, WEDA Excellent, do you have any notes for me?
- Alexa, WEDA Excellent, how many animals are ready for sale?
- Alexa, WEDA Excellent, how many valves have got less than 80% feed?
- Alexa, WEDA Excellent, which maintenance is next?
- Alexa, WEDA Excellent, what is the water consumption?
- Alexa, WEDA Excellent, what is the feeding time?
- Alexa, WEDA Excellent, how high is the stable temperature?



Echo Show (query silo stocks)



Echo Show (query system status)



Echo Show (query error messages)

WEDA EuroTier-NoveltY: WEDA OptiMum



Supplying animals individually - achieving optimal performance

The exact feeding is particularly important in stables for suckling sows. With the „WEDA OptiMum“ feed doser it is now possible to take into account the individual sows' needs for their feed and to achieve a sustainable balance between animal welfare, operational success and efficient work without any problems.

The WEDA OptiMum is a computer-controlled dosing system for farrowing pens, and it has to be installed under the volumetric dispensers for

Smart feed with WEDA OptiMum

every existing dry feeding system and is used flexibly every day. The system makes it possible to manage the feed dosage according to the individual needs of sows and thus to maintain their individual body conditions such as lactation, number of piglets and date

of birth. To optimize the feed intake, the OptiMum doses the feed regularly in small quantities. It is advantageous that the food in the trough always remains fresh.

The complete system control is done by the WEDA feeding computer Excellent 4PX. The animals can be supplied with food by means of a vibrating sensor or according to predefined feed curves. Thus, for example, the feed requirement can be retrieved by means of the vibrating sensor installed in the trough and then dosed in portions. In addition, the feeding times are freely adjustable. This allows the food to be absorbed throughout the day, which has a positive effect on health and milk production. All feed quantities are registered in the computer. In case of larger deviations, the farmer gets a message via e-mail upon request.

Special features and advantages at a glance:

- Feeding of fresh feed as needed and in small portions
- Higher feed intake
- Optimal feeding control, thus better sow condition and minimum weight loss
- Higher milk production of sows, which promotes piglet growth.
- Easy cleaning, thus higher hygiene
- Control via Excellent 4PX
- Remote control using Smartphone (W-Mobile)

Hikeable Germany

From the mudflat walkings on the North Sea to the via ferrata in the Alps - where hiking is the most beautiful

For many of us, in our childhood, it was a torment to travel to the mountains with our parents on a Sunday family outing. But nowadays more and more Germans - voluntarily and even gladly - go hiking in their spare time.

On a walking trail of about 200,000 kilometers, more than 40 million hikers in Germany have the opportunity to pursue their hobby or their passion. Hiking is again popular with young and old people and has received much endorsement from hikers such as Comedian Harpe Kerkeling, who made a pilgrimage on the Way of St. James and wrote a bestseller („I'm Off Then“). So, as soon as the weather allows it, the countless outdoor friends get up to do sports while hiking or simply enjoy nature and tranquility. This makes hiking the favorite recreational activity of the Germans - even before cycling or running.

Most of them regularly go towards the mountains. On the other hand, the north of Germany also has a lot to offer regarding hiking.



Walk on the seabed - a special highlight on the North Sea

From the classic mudflat hiking tour in our unique World Heritage Mudflats to hiking in the wonderful nature of Mecklenburg-Western Pomerania with its deep forests, countless lakes and cliffs on miles of beaches, every hiking enthusiast will find something for his taste or fitness level. Also, the Lüneburg Heath is considered a hiking paradise in Lower Saxony and is pervaded by hiking



The Lüneburg Heath in its full-color splendor

trails that offer everything from easy walks to multi-day trips. The famous Heidschnuckenweg is the most beautiful hiking trail through the Lüneburg Heath.

Lower Saxony offers with the region of the Weserbergland another diverse area, where you can walk in the footsteps of dinosaurs and the ancient Romans to historic places of worship on spectacular cliffs through mystical forests.

A hike in the Harz National Park is an experience that can be done in every season and in every weather. Dense forests, rushing brooks and bizarre rocks. Here, the moors grown over thousands of years and around 600 kilometers of hiking trails invite you to discover and enjoy.

If you like it a little more exciting, travel to the

National Park in Saxon Switzerland. The bizarre sandstone formations high above the Elbe offer spectacular views and always new photo opportunities. The most famous hiking trail is the 112 km long Malerweg - but Saxon



This bizarre world of sandstone rocks inspired various artists as early as the 18th century.

Switzerland has even more to offer - the region is considered the most spectacular hiking area

in Europe. The fascination of the Elbe Sandstone Mountains comes from the scenic diversity of this region - table mountains, plains, canyons and valleys - it is really worth a longer stay.

If you want to hike Hessen, this is best done on the Kellerwaldsteig, passing through exceptionally old and intact beech forests. The Urwaldsteig Edersee is one of the most attractive hiking trails in the Northern Alps. Distant views get you to the Habichtswaldsteig through a fantastic basalt crest landscape.

In Thuringia, on the summit hiking trail, you pass seven of the highest peaks in the Massif Central of the Thuringian Forest.

North Rhine-Westphalia has a variety of hiking areas to offer. On the Herrmannshöhen you walk one of the most beautiful low mountain hiking trails in the country. All 226 kilometers can be handled with a mediocre condition and a little sure-footedness.

Southern Germany offers with the Seensteig in Baiersbrunn, a hiking trail through the Mecca for gourmets. Also along the Danube on the Donaubergründweg or on the Danube-Zollweg it is not devoid of highlights. Here it is worthwhile to research

the most beautiful areas around hiking intensively. Unfortunately, we cannot illuminate every region intensively, but also in Franconian Forest, in the entire Alpine region, in the Upper Palatinate Forest and on the 660-kilometer Goldsteig in Eastern Bavaria, everyone will enjoy hiking.



Wonderful - a break with a panorama compensates for all efforts.

For many, the goal of every hike is the long-awaited chalet, the restaurant or a nicely located picnic bench. Here you can relax with a crab sandwich in the north or a Kaiserschmarrn (cut-up and sugared pancake with raisins) in the south.

Reasons for which the hiking is so popular again on the popularity scale of the Germans, are obvious. After all, you can do it alone, as a couple or with the whole family. In addition, walking is an effective full-body workout and good for the entire cardiovascular system. But most importantly, hiking is good for the mind - because when hiking

you can just enjoy nature and switch off your head. Finally, a trip to the countryside offers pure relaxation and recreation in times of constant digital availability and growing job pressure.

Many Germans also go abroad to spend pure hiking holidays there. Instead of taking the sun on the beach, the firm footwear is unpacked and the landscape is explored.

It does not matter if you are on holiday or at home - it is always important that hiking is adapted to the physical strength. After all, the trip to nature should be fun and not forced movements. Especially for beginners, it is advisable to first choose a path that is easier on the scale of difficulty and also does not take so long.



A hearty picnic in the fresh air with a beautiful view - this is pure enjoyment

GASTRONOMIC TASTES FOR TREKKING

Snack - much more than just a sandwich

Nowhere in the world the bread variety is as large as in Germany.

The Internet contains various ideas and information about how to make a delicious snack - and for a good reason. Because snacks or sandwiches are an easy and fast alternative to a rich main course. Even if you are not so hungry, sandwiches are a tasty option.

They are also ideal as a lunch for the office or school.



A hearty snack: Just the right thing to eat after a strenuous hike.

With fresh ingredients such as crisp salad, spicy cheese or juicy ham, they are simply delicious and can be varied endlessly. Try our recipe suggestion - you may get a taste for it and expand

your cookbook with some popular snack alternatives. Enjoy your meal!

Wholemeal sandwich with roast pork and sauerkraut:

- 8 slices of rustic bread or wholemeal bread
- 100g cream cheese or butter
- 4 teaspoons mustard, medium hot
- 8 pickles
- 200g sauerkraut
- a bit of salt
- a bit of pepper
- 1 bunch of chives
- 150g roast pork or cooked ham

Cut chives in fine rolls. Spread cream cheese or butter and then mustard on four slices of bread. Cut the pickles lengthwise into thin slices and spread them on the coated bread.

Season the sauerkraut with a pinch of salt and pepper and spread on the cucumbers. Sprinkle the sauerkraut with chives and arrange the cooked ham.

Put on uncoated bread slices and serve with a good portion of mustard.

Not without a piglet protection cage

That's what the experts say in our themed special



Interview with Dr. Eckhard Meyer, (Teaching and Testing Institute Köllitsch)

As an expert of pig husbandry, responsible for the pigs in the Free State of Saxony, as well as in the Teaching and Testing Institute Köllitsch.

Born in North Rhine-Westphalia, studied in Göttingen and PhD in Animal Nutrition 1995, until 1997 Animal Husbandry internship in Lower Saxony.

Since 2000, he has been fully employed at the LFULG (formerly Landesanstalt für Landwirtschaft - State Research Centre for Agriculture) in Saxony

The discussion about the unwanted cage-like structures in livestock farming should soon lead to a new regulation of breeding stall housing in the service area and to not stop at the farrowing area. The term „freedom farrowing“ is becoming more common.

SCROFA⁺: Mr. Meyer, you have been dealing with farrowing systems for over 10 years, how do you rate this discussion?

The term „freedom farrowing“ is used as the synonym of the desired freedom of movement of the sows and the description of completely different systems. It is assumed that it should be possible in perspective to dispense with the piglet protection cage completely. First of all, it is important to keep a clear picture of which systems you are talking about. In conventional farrowing pens on a floor area of 4.5 to 5 m², the piglet protection cage will remain closed during the entire suckling period of the current day, mostly for 28 days. So-called freedom farrowing systems, which must be 1.5 to 2 m² larger, are required to allow a piglet protection cage opening after the first days of life critical in terms of crushing. Farrowing welfare systems do not have a piglet protection cage and are usually at least 7 m² in size or even

larger. The increased animal welfare requirements are set by individual organizations. Usually space to roam and interspersed areas are mandatory.

SCROFA⁺: Housing sows in Freedom farrowing systems is a hot topic in Germany. Meanwhile, however, the voices calling for farrowing welfare systems (without the piglet protection cage) are getting louder and louder. What do you think about completely eliminating piglet protection cages?

Even in farrowing, with regard to the animal and work protection thus intended, it may not be expedient to dispense with piglet protection cages completely. Rather, the length of stay of the sows should be reduced to the

Completely eliminate piglet protection cages?

necessary level. Although the cages limit the freedom of movement of the sows, they are also active animal welfare as seen in the insemination. In addition to the limitation of the suckling pig loss, a properly sized piglet protection cage also supports standing up as well as laying down and

can thus compensate for deficiencies in the sow's foundation and in the stability of the floors. Reducing the length of stay to the necessary level is therefore a reasonable compromise that should no longer be talked over anymore.

SCROFA⁺: You certainly know the arguments of animal welfare and increased animal welfare. For example, both sides argue that sows are suffering from piglet protection cages and should therefore be able to move freely for a long time. What do you think?

We work a lot on the animal and I honestly do not have the impression that the sows in the pre-birth period suffer from the restriction of the ability to move. The births take on average 6 hours today, which is much longer than before, and are a big burden for the animals. After that, the animals are exhausted and lying on their specially equipped platforms - please excuse the comparison - like the women in the puerperium. My personal impression is that the sows are happy, at least in the first week of sowing, that they have their peace and „get along“. We also see that the deliveries are better mastered when we close the farrowing frame in the movement pens in time for the delivery. Even the literature says the ani-

mals have to get used to the system to get it right. This is especially true for the gilts for which the fixation is admittedly a significant step. The disadvantage, however, is that the nesting behavior can be performed worse with less freedom of movement.

SCROFA⁺: Where do you see the benefits of piglet protection cages?

In the farrowing area, the cages are justifiably called piglet protection cages because they reduce the (early) piglet losses and also protect the

increase the vitality of the suckling piglets. However, these are not doable if the

Birth takes on average 6 hours

sow lies in a wrong position in the pen.

SCROFA⁺: Keyword losses due to crashing: Are these actually much higher in farrowing welfare systems than in freedom farrowing systems and conventional pens? If so:

50% of the piglet losses occur in the first 48 hours of life. The piglet protection cage reduces these losses by an average of 5%, which has been shown in many trials. In farms with a higher loss rate the reduction of crushes is even bigger. If they are calculated accurately, they are already too high in many farms and large litters with small piglets and sometimes reach QS relevant values (> 18%). Another cause of loss is the change in the lying position, the so-called roll movements. These are more frequently observed



WEDA-Movement pen (prototype upon special request) offers a lot of space to the sow, but increases the piglet losses due to the rolling movement of the sow. At birth, the way to reach the piglet nest is too long.



A WEDA freedom farrowing system (triangular shape) offers space and protection

person who has to work on the animal. About 25% of the sows attack the farmer while working with the piglets. This is nothing but the drawback of the desired motherliness that cannot be renounced in systems with more freedom of movement. In addition, there are support possibilities because births of highly fertile sows take on average 6 h. Birth assistance and interventions are necessary for longer delivery processes and demonstrably

When and where are the biggest dangers for piglets in free movement pens?

The behaviour of about 40% of the sows while laying down is dangerous in regard to piglet crushing. While laying down (with or without lowering the hind legs), the sows throw themselves directly on their side and do not turn from the prone position to the lying one. This is particularly relevant in the first week of life of the piglets and thus

in large spaces. Therefore, pen dimensions proposed for the farrowing welfare system on the order of more than 8 m² do not change anything. If the piglet protection cage is opened after one week, then the piglet losses are about 1-2% higher than in good conventional systems. We can just live with that.

Continued on next page

SCROFA⁺: How should a pen look like, that offers the animals maximum freedom of movement with minimal losses due to crashing while protecting the stable staff?

The farrowing pen of the future must make a compromise in order to fulfill the demands of sows, piglets but also of humans. Therefore, you need an optimally shaped piglet protection cage, which can be opened as user-friendly and safe as possible after the required time. The most important thing to sell as many piglets as possible is to have an optimal ratio of the pig's home range to the piglet's escape areas. These should be uninterrupted in the pen (all around). The method of a square pen geometry used to date for allowing the sows so much freedom of movement was demonstrably wrong! In our opinion, optimal designs are rather long and narrow so that the sow is

brought down on a dedicated platform and supported by an unfolded bracket of the farrowing frame if possible. According to current evaluations, the weight increases compared to suckling piglets in conventional pens. 6 to 6.5 m² of floor space are sufficient and affordable for the farmer.

Sow holders need planning reliability

SCROFA⁺: Where do you see a need for political action?

If it is a political will to raise the standard of animal welfare, then it must be clear that there can be no „dream castles“ for livestock without, as a consequence, shifting pig production to a foreign country where the standards are lower than they

are today! In order to make the necessary compromises, the experts should be asked to describe the required systems based on animal welfare relevant sizes. However, „Measuring based Animal Welfare“ is not effective. It is important that decisions regarding the crates are made as soon as possible so that the planning reliability can be achieved again. For the old systems, we need sufficient transitional periods.

SCROFA⁺: What do you advise unsettled sow owners who want to build a new stable?

Unfortunately, the planned amendment of the Animal Welfare Regulation (especially for the design of § 24) must first be available in order to be able to build. But I cannot really imagine that one can make it work in the farrowing area without the described shortening of the duration of stay in crates. However,

as we can already describe the optimal systems today, advance payments and planning should already be made, especially if there is also investment support.

SCROFA⁺: If you were a sow owner and you had to decide on the conventional pig production in piglet protection cages, in freedom farrowing systems, farrowing welfare systems or systems with increased animal welfare requirements, which one would you choose and why?

Ultimately, it is possible to wean piglets in all these systems. The question is only how much it costs and what system actually offers or supposedly offers more animal welfare. In the future, the systems with increased animal welfare and conventional pig production will continue to come closer together. The field of systems with increased animal welfare

must become more professional and the conventional field more animal-friendly. Ultimately, it depends on the marketing of the products, what kind of housing the farmer can afford. This must first be clarified. For me, farrowing welfare systems without piglet protection cages do not represent an improvement. Simply ignoring the facts shown in many experiments or claiming the opposite is, in our view, rather a disservice to the pigs!

SCROFA⁺: Thank you very much for the interview



Freedom farrowing pens

Practical experience

At Weda, people have also been contemplating the term „free farrowing“ for quite some time.

SCROFA⁺: Mr Meyer, how can your practical experience with the construction of pens be summarised?

I'm of the opinion that absolutely free farrowing (without piglet protection cages) is not possible according to the current state of knowledge.

Regarding the question of pen construction: firstly, the pen shouldn't be too big. Bigger isn't always better. On the contrary, too much space can lead to an increase in suckling pig losses.

Square pens are also rather problematic, but a trapezoidal pen on the other hand ensures that the sow tends to lie down more slowly on the intended area.

Experience has also

shown that trapezoidal and triangular pens make it difficult for sows to „roll“ from the belly position into the side position. Due

Bigger isn't always better

to this dangerous rolling, between 50% and 70% of the crush losses in piglets have occurred according to various surveys.

A good pen should also have a „fresh nose ventilation system“. This animates the sow to lay its head towards the trough on the intended surface.

The piglet nest must not be too far away from the sow's rear otherwise the piglets often don't find it after birth. In a test facility we had to build another second piglet nest with a mat and lamp next to the sow.

The open piglet protecti-

on cage has to continue to serve the sow as a resting aid. If possible, it should be close to the sow's lying surface (concrete and cast iron are recommended) so that the sow has stability.

An important point is also the refuge areas for the piglets: these have to be present all around.

SCROFA⁺: What needs to be considered concerning management/handling?

After the cross-fostering, the sow should remain fixed for about 2 days. Otherwise the danger is too great that she attacks foreign piglets. After two days, foreign piglets have taken on the litter smell and are no longer perceived as foreign.

Also, a sow should be fixed if possible only one day before the birth. She should be given the opportunity to get to know her pen and she must practice lying down and standing up before the piglets run around between her legs. The piglet protection cage may only be opened when the piglets are fast enough (at least 5 days after birth) to be able to get to safety when the sow lies down.

Good supplementary feeding helps sows and piglets

Good supplementary feeding helps to optimally supply large litters and to relieve the burden on the sow. The number of weak piglets, the runts who can't flee fast enough, is also minimised.

Experiments have also



Interview with Ralf Meyer, 47

He has been with WEDA since 1989.

From 2001 to 2009, Project Manager for pig feeding systems and piggery facilities „worldwide“.

Head of Development since 2009.

Has been intensively involved with freedom farrowing systems since 2012.

shown that the more litters the sow has had in a variable-restraint pen, the lower the mortality rate.

SCROFA⁺: Where do you see a need for political action?

There are simply always „non-suitable variable-restraint pen“ sows – about 10% of the group. They have to remain fixed du-

Piglet losses must be minimized

ring the entire suckling period. It would be fatal if the legislator did not allow „problem sows“ to be fixed during the suckling period to protect the piglets. In the „Abferkelbuch 2020“ [Farrowing Pen 2020] project in which WEDA worked as a project partner, there was a sow that killed 10 piglets and one that even killed 13 piglets. Such animals need to remain fixed in the piglet protection cage.

Also, no animal welfare should take place strictly according to the book. Larger pens don't automatically provide more animal welfare than smaller ones. For example in the „Pro-Sau“ project in Austria, three pens with 5.5 m² were examined. Piglet losses in these „small“ pens ranged from 9.89% to 12.03%. Two larger pens were also examined. The losses in the larger pen

were higher.

Most of our customers have opted for 5.5 to 6 m² and operate these pens with

SCROFA⁺: Many thanks indeed for the interview.



good success. If the sow has considerably more space, it can „roll“ as desired. This must still be prevented.

Even in organic husbandry, rolling is still a problem. For this reason a pipe is often installed in the middle of the pen. Although this restricts rolling, the piglets are still crushed on this pipe because they have no escape option.

From participants active in different committees I repeatedly hear that the NVO is going to stipulate 6.5 m² for a minimum width of 2.1 m of pen area in the future. I hope they'll soon agree on to 6 m² so that farmers can finally regain planning security.



The FiT pen is the further development of the triangular pen. It combines the advantages of animal welfare with occupational safety and work facilitation. The integrated inspection walkway makes it very easy for farmers to carry out all work without entering the pen.



Interview with Andreas Nüsslein, LfL Bayern

Agricultural technician at the Bayerische Landesanstalt für Landwirtschaft [Bavarian Regional Office for Agriculture] in the Institut für Landtechnik und Tierhaltung [Institute for Agricultural Engineering and Animal Husbandry]

01.10.2017 to 31.01.2018 – Project member, Bayerische Landesanstalt für Landwirtschaft in the Institut für Landtechnik und Tierhaltung

Education and Study:

- 2013 to 2017 Studies at Weihenstephan-Triesdorf University, Bachelor of Science (Agriculture)
- 2012 to 2013 Higher Vocational School at Triesdorf State Technical College and Higher Vocational School
- 2012 Training as a farmer

Tasks at LfL: Participation in tests on the housing of piglets, fattening pigs and sows in alternative housing systems, including the housing of lactating sows in variable-restraint pens. Implementation of tests, participation in the planning and evaluation of tests, as well as in the preparation of test reports, publications and consulting documents

SCROFA⁺: The LfL Bayern recently carried out surveys in the LVFZ Schwarzenau on the subject of variable-restraint pens. What was the purpose of the investigation?

Recommendations on dimensions and design details were to be formulated in order to provide best possible conditions for carrying out work

Six types of pens in the test

while ensuring high animal welfare and low piglet losses. The central goal of this test was to prepare the practical use of these systems in accordance with the requirements of the investment promotion, and to advance them as appropriate.

SCROFA⁺: How was the test conducted? What were the central questions put to the participants? There were six different types of strawless freedom farrowing systems, and a total of 12 pens (two types of each pen) were integrated into the farrowing area of the Schwarzenau teaching, testing and specialist centre for pig farming within the Bayerische Landesanstalt für Landwirtschaft.

With one exception, all the pens had a surface area of 6 m².

In addition, there were

A project with a major objective

two pens with fixation, so that a comparison was made between freedom farrowing systems and pens with permanent fixation of the sow. Individual animal ear tags were collected from all piglets during litter treatment to record the piglets lost in-

dividually, along with cause of loss, and time and place of discovery, in the pen.

Central questions of the project:

Which alignment of the pen or piglet protection cage is advantageous?

What effects do the pens have on the work implementation?

How clear and concise are the pens?

Where are there bottlenecks in the pens?

How are the various locking mechanisms on the piglet protection cage and pen doors assessed? How is cleaning of the trough and round drinker?

What is the durability of the housing technology?

How high are the piglet losses?

SCROFA⁺: What types of pens did you analyse?

The following pens were investigated: „diagonal-wide“ (2.6 x 2.3 m), „diagonal-narrow“ (2.1 x 2.6 m), „straight-wide“ (2.3 x 2.6 m), „straight-narrow“ (2 x 3 m), „wing pen“ (2.6 x 2.3 m) and „Goldbrunner“ (2.4 x 2.5 m).

SCROFA⁺: Which results did you derive?

We came to the following conclusions:

- No clear advantage of one special pen or alignment of the piglet protection cage was recognised

- Individual advantages and disadvantages of each pen type

- Decision according to the priorities of the farmer/pig farmer

We recommend the following: certain minimum dimensions should be kept to in connection with alignment of the piglet protection cage. In the case of straight housing parallel to the supervision corridor, a length of at least 2.75 m should be available. There should also be at least 40 cm space behind the sow for the birth area. In the case of straight pens aligned with the compartment wall, the length can be shortened to 2.6 m, or to 2.5 m in the case of a laterally offset sow trough,

since the compartment corridor can be used for birth management. Diagonal pens are recommended with a width of 2.6 m and depth of 2.3 m, a width of 2.5 m and depth of 2.4 m or a width of 2.45 m and depth of 2.45 m.

Piglet losses:

The individual sow or individual litter proved to be an important influencing factor. It was not possible to make a comparison between the freedom farrowing system types and fixation pens concerning the influence on piglet losses, since the number of crushed piglets varied between zero and eight

Not every sow is sociable

between the different litters but also between the litters of the same type of pens. However, it was possible to evaluate the loss of piglets between freedom farrowing system pens and fixation pens. A total of 1.3 piglets per litter were crushed in the freedom farrowing system pens, and of these, 0.4 during the movement phase.

With the fixation pens there were crushings of 0.7 piglets per litter, of which 0.1 were piglets from the 7th day (time from opening of the piglet protection cages with the freedom farrowing system pens), so during the movement phase there were 0.3 piglets per litter more in the freedom farrowing system pens than in the conventional farrowing pens. This difference was significant. Losses of weaker piglets were 0.4 piglets per litter in the freedom farrowing system pens and 0.7 piglets per litter in the fixation pens.

SCROFA⁺: Can pig producers who have already installed freedom farrowing system pens in the farrowing house do anything to improve the working conditions in

the farrowing area afterwards (regarding technology / management)?

From a management point of view, pig producers should integrate the freedom farrowing system pens into their daily routine. That means for example in concrete cases, if they wish to catch piglets on a certain day for treatments, the freedom farrowing system pens should be closed directly with the feeding, then only little time is needed.

This is rather difficult from a technical point of view, but special care should be taken to ensure that simple locking mechanisms for fixing the sow are installed or retrofitted.

SCROFA⁺: When is the best time to open the piglet protection cage?

In our new project, we've adjusted the time of opening and closing the piglet protection cage on the basis of the practical experience of farmers in comparison to the previous project, in order to have less crushings after opening the piglet protection cage. No precise results have yet been obtained though as to whether this management measure has been successful in terms of piglet losses.

Other investigations (ProSau in Austria) do not recommend opening the

piglet protection cages before the 5th day of the piglet life.

SCROFA⁺: If you were a pig producer and had to decide between conventional housing in a crate, for housing in farrowing system pens, housing in farrowing welfare system pens or housing in a pen for increased animal welfare, which would you choose and why?

Because it's foreseeable that the possible fixation period of sows will be significantly shortened in the future, the conventional pen can be ruled out. Freedom farrowing system pens with piglet protection cage also allow free farrowing. Pens for increased animal welfare with even more surface area and straw use increase production costs considerably and require a corresponding marketing possibility for the piglets.

SCROFA⁺: In your opinion, is it possible to keep sows without using piglet protection cages?

Well, above all that's a question of marketing. Organic associations and some premium labels demand dispensing with any fixation of the sow.

This has consequences though: most crushings take place in the first days of life and the piglets aren't

yet so fit that they can avoid the sow. This means then that the loss of piglets due to crushing increases with free farrowing.

The treatment of the sows and piglets also becomes more difficult and dangerous without the piglet protection cage, because some sows are not exactly sociable and don't allow the piglets to be removed, even for a short moment. As a consequence, the piglet protection cage offers protection not only to the piglets but also to the animal keepers.

SCROFA⁺: Many thanks indeed for the interview.

WEDA freedom farrowing system Well-being for sows and piglets



The Weda pens in Schwarzenau are clearly laid out and spacious – despite high pen partitions in some cases. They offer a sufficiently large movement range of 3.9 m² and a generous radius of movement for the sow (1.86 m). With the piglet protection cage open there is sufficient space to feed the piglets. Individual adjustment of the piglet protection cage is hardly necessary, but possible.



Pigs high above the clouds

„Helping animals“ are allowed to fly often

Can the pigs fly? This does not mean the game of the KOSMOS publishing house of the same name, but rather a story that has sometimes brought forth strange fruit. Thus, the so-called „Emotional Support Animal“ has become increasingly popular. Almost three years ago, a pot-bellied pig flew in the first class with US Airways from Philadelphia to Seattle. The owner had argued that the pig must accompany her as a helping animal to reduce the stress.

The name of the pig with a metal leash that had already triggered the alarm during security checks, is Hamlet. It had to be carried up the stairs to the aircraft but behaved aboard exemplary. He is a very clean pig and quieter than most children, argues his owner Peabody.

It is allowed by the rules for the transport of the animals as helping animals in the USA. The rules, which had previously been mainly for dogs, were extended to all helping animals. Airlines can now be forced to leave animals of all kinds

ample, so that their human companion can reduce stress and fear of flying. All animals that help sick or disabled people are regarded as helping animals and, today, provide a much broader range of services than before. The new directive also sets out what the airline needs to do to ensure that passengers' health and safety are not jeopardized or that they do not interfere with onboard service - and when they can legally refuse the animal transport in the passenger area.

The rate of passengers traveling in 2017, e.g. with American Airlines, who did not want to remain without

Emotional support at 10,000 m altitude

a cuddly living toy, increased by 40%. For other airlines, it should have been up to 75 percent more.

But what is too much is too much. The airline companies had to react and, after turkeys, goats, hedgehogs and even a peacock on the lap of their owner, various airlines stop this hustle and bustle. If mentally unstable passengers want to take an animal companion on board, they must present a medical certificate for this purpose.

Of course, the guide dogs are and remain excluded. You - and also your animal friends - may continue to travel in the passenger compartment. Of course,

the acclaimed miniature blind horse "Cuddles", which already had an appearance on the "Oprah Winfrey Show", traveled by plane from Boston to Chicago. For this flight, whether the horse should wear a diaper was discussed at check-in. But since the flight from Boston to Chicago takes just two hours, Cuddles was spared taking diapers.

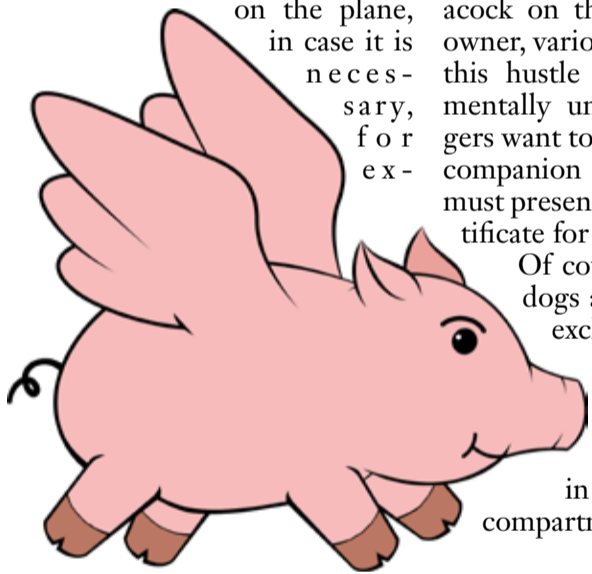
The horse did its best. Only at the landing, nature spoke up. However, the horse surrendered to the carpet in the front of the aircraft. The cabin crew had to do extensive cleaning and ventilate the plane for a long time to get it ready for the next flight.

Not every fellow traveler is equally enthusiastic about these animal companions. Especially when they do their business in the corridor. A current list regulates which animals have to stay on the ground

Miniature blind horse in seat 3A

in the future, and this holds quite surprises. Forbidden animals include, among others: goats, hedgehogs, ferrets, rodents, reptiles of all kinds, birds, animals with fangs, horns and hooves as well as animals with a strong smell. This rule explicitly excludes mini-horses. Dogs and cats are also allowed. However, the animals must not obstruct the passage, sit on a seat or eat from the dining tray.

However, here, it is also not guaranteed that it behaves as a "good lap dog". Fighting dogs that have eaten out of their cages and forced an unplanned landing are also reported as having traveled. A dog named "Dom Perignon" who lives with his owner, Marcelle Becker of Beverly Hills, is an example to them. "Dom Perignon" broke loose in the cabin, and when the flight crew tried to put him back in his Luis Vuitton carrier bag, Marcelle Becker became so angry that the captain finally had to tie her to the seat with Dom Perignon's leash. Becker sued the airline for assault, violation of their civil rights and animal cruelty - but lost in court. How sympathetic were we to Hamlet and his owner!



A pig conquers the wide world

Why pigs are so popular

If you enter the search term "pig" at a well-known online wholesale platform, you get over 50,000 results displayed. From the keychain to toilet bags, from USB sticks, pillows, cups, stuffed animals to pink ice cubes, everything is there to make a pig fanatic's heart beat faster.

But why has the pig been a popular bearer of sympathy for years. What is the fascination of "pig"?

Some pigs are better than their reputation. In the realm of children's entertainment, they are always lovable heroes, who - unlike in real life - beguile us with their most varied character traits. Unforgettable the Muppet Show with the lascivious Miss Piggy and the pigs in space, who made us laugh with

alien jokes. Walt Disney, on the other hand, always made his piggy triumph over the evil wolf. A pig named Babe even gave a respectable hero in the film of the same name: Adopted by a Collie, the piglet took over the job of a shepherd and soon guarded a flock of sheep. And then there was the fat Waldemar in Helme Heine's "Friends" books: Even if he rolled in the mud, he was no dirty character - because under the dirty skin stuck a brave, kind-hearted guy who was always there for his friends.

Who wants to bring a commodity today on the market, and relies on a piggy design has certainly set "on the right pig" has certainly set on the right pig also for household items in the pig farm design, the world continues to look

rosy. After all, who does not like to roll off his kitchen paper from a stylish domestic pig holder?

In any case, pigs are not only good for making liverwurst, but they are also widely represented in the arts. Countless pictures and sculptures already populate the world. In Germany, the most famous is probably the bronze figure of the swineherd and his flock in the Bremer Sögestraße. No shopping trip takes place in Bremen without a visit to the famous, polished pigs.

In addition to the pig in the fairy tale books, pigs have also been kept in the German language usage. Who does not like to "let the sow out" (to whoop it up), or feel "comfortable like a sow" (to feel warm and cozy) most of the time. Spoilers throw "cast pearls

before swine" or an astonished observer "I heard my swine whistling" (Blow me down).

Another thing which is firmly anchored in our German society is the superstition that pigs bring good luck, as the pig has already been a sign of prosperity and wealth and a symbol of fertility and strength in Germanic times. Therefore, many lucky pigs in any form are given away at the turn of the year. They adorn Berlin marzipan or smile a hundred times from greeting cards. The saying „Got Pig“ (which means "I was lucky") presumably comes from medieval contests, in which the last one received a pig as a consolation prize. Moreover, the piggy bank has been understood as a harbinger of prosperity coming, as a

The Nutrix Effect:

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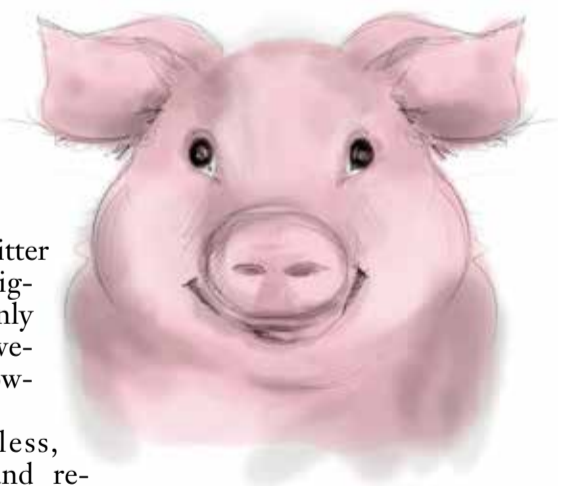
Feeds ALL suckling piglets




www.weda.de



We care about pigs



sow with a litter of several piglets could only increase the wealth of the owner.

Nevertheless, the pig is and remains a popular figure and is an indispensable part of our everyday life.