



## **New Products**

# **Agromek 2006**

### **Temporary List**

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**Organizers:** Danish Manufacturers of Agricultural Machinery & Danish Agriculture

**New Products - Agromek 2006**

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## Field Work

### Tractors and powered machinery

#### Tractors and ATV's

- Fog A/S, Henrik A. - Stand No. A1-1208**
- ★ Antonio Carraro SN 6500 V is an angle steered universal tractor with a narrow track width and small turning radius. It is equipped with a 4-cylinder/58.5 h. p. motor.
  - ★ Antonio Carraro TRH 9400 is a compact tractor with 4 equally large wheels. It has both mechanical and reversible hydrostatic transmission and can be fitted for front and rear mounted implements. It has a 4 cylinder/85 h. p. motor with turbo.
- Nicolaisen & Larsen - Stand No. H-6222**
- ★ JCB Fastrac 8250 is a larger model of the well-known JCB range of tractors. This model's front wheels are slightly smaller than its rear wheels. All wheels have suspension and this model has infinitely variable CVT transmission and a 6-cylinder/260 h. p. motor.
- Præstbro Maskiner A/S - Stand No. A1-1200**
- ★ Landini Powermaster is a new series of tractors with motors in the range 180-220 h. p. It has 48 gears with 8 stage power shifts and a sealed center, load-sensing hydraulic system. This tractor has electronically operated oil supply.
  - ★ Valpadana 6500 ARM is a series of angle steered universal tractors with a narrow track width and a small turning radius. It is available with 4-cylinder motors in the range 46 - 54 h. p.
- Scan-Agro A/S - Stand No. M-9630**
- ★ Lamborghini R6 Hi-Profile is a series of tractors with completely new developed cabins in which all operating controls are situated in ergonomically correct positions. These tractors have headland automatics and are available with motors in the range 100-120 h. p. of which the largest has 6 cylinders.
  - ★ Lamborghini R6 180.7 is a new large model in the R6 series. It has a 7.15 liter/180 h. p. Deutz motor with turbo and intercooler. It has ZF transmission with automatic gear compliance, plus load-sensing hydraulics with headland automatics.
  - ★ Same Iron Hi-Line is a series of tractors with completely new developed cabins in which all operating controls are situated in ergonomically correct positions. These tractors have headland automatics and are available with motors in the range 100-120 h. p. of which the largest has 6 cylinders.

- ★ Same Iron 180.7 is a new large model. It has a 7.15 liter/180 h. p. Deutz motor with turbo and intercooler. It has ZF transmission with automatic gear compliance, plus load-sensing hydraulics with headland automatics.

### **Spare parts and equipment for tractors, machines and implements for field work**

- ★ **Dani Trading A/S - Stand No. H-6306**  
NEM CT-364 is an electrical proportionally controlled 3-way flow control valve with infinitely variable regulation of oil quantity from 0 to 70 liters per minute. The valve has pressure compensation on both outlets. This facilitates the application of several hydraulic requirements with varied oil pressures without influencing the set oil quantity to the individual requirement. It is electrically operated via a potentiometer that simplifies remote control of the implements' hydraulic functions.
- ★ **Trelleborg Wheel Systems - Stand No. G-4604**  
Trelleborg Twin Radial is a new type of tyre for implements in which the carcass is now of the radial type. The tread pattern is designed for both road and field transport. These tyres are specified as Index D which permits speeds of up to 65 km/hour.
- ★ **Walterscheid Danmark, GKN - Stand No. H-6126**  
Walterscheid PTO shaft, types W2600 and P600 have modified bearing geometrics in order to comply with the demands that exist when applying large tractors. It is stated that durability is increased by 50%. The cross members have P-seals which ensure longer lubrication intervals.
- ★ Walterscheid hydraulisk side stabilizers, type HVST, are designed to replace ordinary mechanical wobble stops on the tractor's drawbars. These stabilizers consist of double effect hydraulic cylinders which can therefore be used for the side control of suspended implements, e.g., when operating across slopes.
- ★ Johnsen Oil Preformer is an oil filter that continuously removes water and other undesirable elements from oil. This applies to motor oil, hydraulics oil, gear oil, engine oil and biological fuel types. This should result in longer oil change interval requirements.

### **Electronic/measuring equipment for field work**

- ★★★ EUR **Agrovo - Stand No. G-4506**  
AutoFarm, type Autosteer A5 RTK, is an automatic steering system for post installation on all types of tractors, cutters and combine harvesters. It has a precision of +/- 2.5 cm. The system can be coded for the various machines and fields and retained in the memory function. The system can steer the tractor in straight lines and on curves.

- ★★ Cultiva LT Marker and Cultiva ATC are guidance computers. A large display shows the tractor operator where to drive in order to maintain the correct course in the field. The LT Marker can only operate on straight parallel tracks. The Cultiva ATC can operate on both straight and curved tracks.

#### **Datalogisk ApS - Stand No. M-9708**

- ★★★ EUR AGLeader EZ-Steer, Trimble Navigation, is equipment for the automatic steering of agricultural machines. It consists of an electric motor with a rubber roller which is held firmly against the steering wheel of the tractor or motorized implement. The electric motor is controlled via GPS. It is thus not necessary to make changes to the original construction of the tractor or machines.

#### **LH Technologies Denmark ApS - Stand No. H-6000**

- ★ LH CenterLine 220 is simple, user friendly equipment for operating on parallel tracks.
- ★★★ EUR LH-Agro® FieldPilot II, DGPS steering system. This is a "steering assist" computer. It can steer the tractor on straight and curved tracks. It is operated via a pedal when the Field Pilot is required to take over control. If the tractor operator steers the tractor away from the predetermined course without disengaging the steering control, the system will try to maintain the predetermined distance. The system requires a DGPS signal from, e.g., Egnos. The same computer can control the dosage of various ancillary agents.
- ★ LH-Agro®, LH Tilt Sensor is designed for the correction of deviations from operating in a straight line which arise if the tractor tilts to one side and the GPS antenna is fitted on the roof of the operator cabin.

#### **Lykketronic A/S - Stand No. G-4712**

- ★ Lykketronic RF Remote Control is a remote control module with sender and receiver. It can for example be applied for start/stop of slurry pumps or in connection with various other machines.

## **Cultivation**

#### **Agrovo - Stand No. G-4506**

- ★ Opicon Combi Ridger is intended for positioning between the tractor and a maize sowing machine so that the maize is sown in ridges. It can make 6, 8 or 9 ridges to suit the maize sowing machine. At the front of the unit, there are tines for fertilizer precipitation.

#### **MO Implements A/S - Stand No. M-9612**

- ★★★ DK Maschio cultivator, model Silva and Diana, have hydraulic offset positioning. The Diana model is also equipped with a sensor that automatically swings

the cultivator backwards when the sensor registers any obstruction, for example, a tree or fencepost.

**Scan-Agro A/S - Stand No. M-9630**

- ★ Scan-Culti Halmnedmulder, type SCH 7-13 teeth, is a heavy-duty stubble implement with rigid diggers and leaf spring stone releasers.
- ★ Scan-Power Harrow, type SPH 300 Plus, is a newly developed rotary harrow with rubber packing roller. It is available in operating widths of 3 or 4 m. This harrow has a specially designed gear bar with stone protectors and a double wall to minimize the risk of damage from stone collision. It is equipped with Quick Fit teeth replacement. These are Plus teeth which can operate in the normal rear "On Slide" manner or in the aggressive front "On Grip" manner.
- ★ Scan-Rotavator Stones, type SRS 300, is a heavy-duty stone burying rotary cultivator which can operate at depths down to 33 cm. The rotor's direction is contra the drive direction thus ensuring that stones and soil are lifted upwards. The soil and stones are cast against a heavy-duty separator grid which causes the stones to be placed at the bottom. The soil is then thrown through the grid and is placed on top of the stones.

## Sowing and planting of crops

### Sowing machines/Combi sowing machines etc.

**Lykketronic A/S - Stand No. G-4712**

- ★ Lykketronic Seed Control is a sowing machine and crop care track computer. It is capable of laying out anti/symmetric crop care tracks, for example, when a 4 m. sowing machine is to be applied together with an 18 m. sprayer. Registration is carried out by keying in the width of the sprayer. The operator is then informed as to eventual alternatives. The computer can also be equipped with 4 easily configurable switches for, for example, the operation of hydraulic valves and/or actuators.

**Scan-Agro A/S - Stand No. M-9630**

- ★ Scan-Air Seeder, type SAS Aliante, is a new pneumatic sowing machine with new Corex disc shares. The self-cleaning disc shares are of the double arch type, are made of stainless steel and have a slight angle in relation to the drive direction so that the soil is moved as little as possible. There is a depth wheel behind each disc share that presses the sowing rill and controls the sowing depth. The seed amount is controlled by newly developed feed units which are driven via an infinitely variable oil bath gearbox.
- ★ Scan-Maxi-Disc Seeder, type SMDS 300, is a combi harrow/seeders for sowing in unploughed and ploughed soil. It consists of a compact disc harrow with 56 mm diameter discs and a pneumatic sowing machine with hydrau-

lically driven fan. The seed tubes are located 10 cm from the edge of the discs in order to minimize blockage risks. The machine is supported during operation by a large tubular packing roller.

## Field coverings

### **DLA-Agro A.m.b.A - Stand No. K-8102**

- ★★ Trio-Plast with pin-holes is a plastic foil for the covering of new-sown maize. This foil is perforated so that the maize can more easily thrust through the plastic. The foil is also coated with a product that makes it easier for the plastic to decompose.

## Fertilization

### Manure spreading

#### **Agrovo - Stand No. G-4506**

- ★★★ EUR Opicon Gylle ridger is constructed for the precipitation of slurry in row crops - typically maize and turnips. If the machine is to be applied for the precipitation of slurry prior to maize being sown, then the slurry is precipitated at 75 cm row intervals whilst a ride is simultaneously formed over the strip of slurry. The maize is then sown in the top of the ridge.

#### **Harsø Maskiner A/S - Stand No. G-4704**

- ★★★ EUR Harsø Universal Precipitator for slurry in cereal crops, grass and black earth. This slurry precipitator has serrated roller shares which are connected with chain drive to a wheel with tractor tyre - one for each share. This results in the roller share speed being reduced by 50% in comparison to the tractor speed. A 27 mm wide porous rill is formed in which the following precipitator shoe positions the slurry. The rotating movement minimizes the risk of dragging in the growing crops.

### Artificial fertilizer spreading

#### **Bogballe A/S - Stand No. G-4600**

- ★ Bogballe Mineral Fertilizer Spreaders, type L1 plus and L1 base, are new, simplified types of spreaders which are available with 700 liters basis volume. These spreaders can be equipped with additional 275 or 450 liter modules. The spreading width is increased from 12 to 18 m. Dosage control can be manual, with cable or with hydraulic remote control.
- ★ Bogballe Mineral Fertilizer Spreader, type L2 plus, is a new type of spreader which is available with 500 and 700 liter basis volume. The spreader can be equipped with additional 450 liter modules according to requirements. The spreading width is increased from 18 to 24 m. Dosage control can be manual, with cable, with hydraulic remote control or with Bogballe Calibrator Uniq.



- ★ **Bredal A/S, Maskinfabrikken - Stand No. H-6006**  
Bredal Lime & commercial fertilizer spreaders, type K, are combined lime and commercial fertilizer spreaders with many lubrication-free bearings to minimize maintenance time. Type K 135 has a total load volume of 16.5 m<sup>3</sup> and can spread fertilizer at widths of up to 35 m. It can be applied for the spreading of both lime and commercial fertilizers. As standard, it is equipped with GPS compatible computer, weight transference and a special load distribution device which ensures that the greatest possible weight is carried by the tractor.
- ★★ **SAMKA VEJLE A/S - Stand No. M-9632**  
Samka Ridge Former 2-rows, type V 3 D, is a ridge former with fertilizer equipment which is designed to position the fertilizer in ridges prior to laying potatoes. The potatoes are laid in a separate operation. This facilitates the transport of more fertilizer than would be the case if a potato layer was installed on the tractor.

#### Artificial fertilizer

- ★★ **Kemira GrowHow A/S - Stand No. K-8116**  
Kemira GrowHow Selenium-enriched fertilizers, types NS 24-7+ Se and NPK 21-3-10 m/S, Mg, B + Se. These are the first selenium-enriched fertilizers to be marketed in Denmark. Selenium is not an essential nutrient for plants, but a sufficient supply of selenium is important for animals and human beings. Until now, the selenium requirement of livestock has been covered by adding non-organic selenium traces to feeds. By applying selenium-enriched fertilizers, the selenium content in the crops is increased in the form of organic linked selenium which can be exploited by the livestock. By applying selenium-enriched fertilizers for grass one attains a positive effect on the selenium content in the grass and higher selenium content in milk and meat is clearly measurable. In Finland, selenium-enriched fertilizers have been obligatory for the past 20 years.

#### Weed, phytosanitary and pest control

##### Weed control - mechanical

- ★ **Weibull Danmark A/S - Stand No. H-6300**  
Weibull's IC/Net is a special type of netting for protection against birds and flying insects on various vegetable farms. The net is made of polyethylene with UV stabilizer and anti-oxidant, it has a finer mesh (1.3 x 1.3 mm) than former insect nets. The weight is 59 gr. per m<sup>2</sup> and it has a durability of up to 6 years.

## Fieldsprayers

- Danfoil Production A/S - Stand No. G-4708**

★ Danfoil AutoTilt, type AgroTilt, are sensors that are fitted on the sprayer boom for automatic height control of the spray boom. The sensors are fitted on both sides of the boom. These measure the height down to the crops and thus regulate the boom height above the crops. The equipment can also tilt the boom or independently steer the right and left sides of the boom. This equipment can be installed on all Dan foil sprayers with S2 monitors. AgroJoy operating equipment is necessary.
- Hardi International A/S - Stand No. G-4614**

★ Hardi Commander 6600 is a towed field sprayer with either conventional or air-assisted boom of up to 36 m. This sprayer is also equipped with wheel track steering. It has hydraulic support legs and suspension on the wheel axles/draw bar.
- ★★★ EUR Hardi PrimeFlow is an electrically operated valve that is fitted at each nozzle and which can open/close for fluids to each nozzle holder (with up to 5 nozzles). This therefore replaces the former section valves. This is a feature of Hardi AutoSection Control, which is an electronic device which enables the sprayer to be sub-divided into selected section widths. This equipment closes off the nozzles individually when, for example, spraying is being carried out in field wedges. It can also automatically close nozzles when facing headlands. The entire equipment is controlled by GPS signals, so the sprayer always knows its position and the areas that have already been sprayed. The system also facilitates a continuously operating circulation system.
- ★★★ EUR Hardi AutoWash is a concept (software program) that provides 3 semi and 3 fully automatic wash programs.

The semi-automatic programs are: 1) Wash with cleaning fluid, 2) tank cleaning and pump discharge from storage tanks and 3) cleaning of additive filler.

The fully automatic programs are: 1) Cleaning of boom tubes, 2) quick basic cleaning and 3) thorough cleaning.
- ★ Hardi I-features for new Commander / HC6500 are a sprayer computer for the automatic control of 5 different I-functions plus the AutoWash program. The functions are: 1) AutoAgitation, automatic stirring according to tank volume and type of chemicals. 2) AutoSlant, a further development of the BMS system that automatically retains the boom at the correct distance from the surface regardless as to whether the tractor is operating in furrows or on flat ground. 3) HeadlandAssist, where one activates the system when the front wheels reach the headland. The sprayer will then continue spraying operations until the boom reaches the headland whereafter the spray fluid is closed off and the boom is raised when turning. The opposite takes place when the

sprayer again approaches the field. 4) AutoGuage tank guage. 5. Automatic tank filling to the pre-programmed volume - regardless as to eventual rest fluid in the tank.

**LH Technologies Denmark ApS - Stand No. H-6000**

- ★★ LH 73 AddFlow with stempel pump is based on LH's 70 series of computers. This can control and dose chemicals into a fluid line at pressures of up to 7.25 bar. The chemicals can thus be injected close to the section valves. A new mixing chamber ensures a thorough mix of the water and chemicals prior to the mixture reaching the nozzles.
- ★ TeeJet®AIXR Air induction is an air injection nozzle for applications in which there is a requirement for minimum wind drift. It can operate at just as low pressures as ordinary flat spray nozzles and low pressure nozzles, so it is easy to change nozzles with the same number without alteration of the dosage.
- ★ TeeJet® TTJ60, VP Turbo TwinJet, are nozzles for broad spraying with two nozzle apertures directed, respectively, 30 degrees forward and 30 degrees to the rear. In this manner, one can attain an improved coverage of the crops. The special design of the Turbo TeeJet nozzle results in a broader atomization than that which can be attained from corresponding flat jet nozzles.
- ★★ LH-Agro®, LH BoomPilot and LH Swath Manager are systems that automatically open/close fluid sections on spraying booms. These systems close the sections off individually when, for example, spraying at field wedges. It can also automatically close sections when facing headlands. The LH Swath Manager is connected against the LH-CenterLine and its DGPS receiver. The entire system is controlled by GPS signals, so the sprayer always knows its position and the areas that have already been sprayed.

**Lykketronic A/S - Stand No. G-4712**

- ★★ Lykketronic SP 7500CD is a CAN-Bus based sprayer computer with integrated hydraulic control, integrated wheel steering and own programming of pneumatic, hydraulic and electrical functions. Steering includes spray dependent wheel steering which connects track driving when the sprayer's main valve is closed. This means that the track driving is only active when facing a headland. During field spraying operations, the wheels are locked in the straight forward position. The steering is also locked if the speed exceeds a pre-determined rate.

**Scan-Agro A/S - Stand No. M-9630**

- ★★ Scan-Sprayer, type SP3500-36, is a newly developed, self-propelled field sprayer with a tank capacity of 3,700 litres. Considerable importance is placed on safe handling of plant protection agents with a large chemical filler at the right working height and a large platform with easy access to the tank.

The wheels have pneumatic suspension in order to ensure boom stability. It has 4WD to ensure minimum crop damage. There is computer control for changing between 4- and 2WD to ensure a smooth and safe change. It has a new advanced fluid system (AVS) which minimizes rest fluid in the sprayer. The 36 m wide boom has centre suspension and movement is reduced by an "anti yaw" system that minimizes horizontal deviation movement. The boom has collision safety which also works even if the boom is only operated as a 24 m boom.

- ★ Scan-Sprayer, type SS3000-24 HT, is a newly developed towed field sprayer with a tank capacity of 3,000 litres and a 24 m boom. It has hydraulically adjustable track width so that it can easily be set for various track widths in plant care tracks.
- ★ **Toft A/S, Brdr. - Stand No. H-6208**  
Bargam 5000, Compact trailer sprayer with 36 m boom. This is a towed sprayer with a stainless-steel tank. It has hydraulic suspension which automatically compensates for fluid volume in the tank. The boom has pneumatic suspension and has a new balance system.

## Harvesting of forage and cereal crops

### Choppers, shredders and field silage harvesters

- ★ **Ingemann Larsen A/S - Stand No. M-9608**  
Strautmann, type Giga Vitesse IV DO Tridem, is a grass collector truck with triple axle bogie. The undercarriage has hydraulic single suspension so that the wheels can easily follow uneven areas in the field.
- ★ Strautmann Giga Vitesse IV quick-top for grass collector trucks consists of a number of straps which can be rolled out over the top of the truck when the truck is filled from below. If the truck is filled from an independent shredder, the straps can be rolled up. Both rolling out and up can be effectuated by one person standing on the ground.
- ★ **Kellfri KB - Stand No. A1-1304**  
Kellfri FR250 is a bush clearer/fallow ground clearer (grass clearance) for major areas. This is a heavy-duty tractor mounted machine with horizontal axle and Y-shaped flails. It is fitted with two rubber wheels.

### Rakers and tedders

- ★ **Scan-Agro A/S - Stand No. M-9630**  
Scan-Rake, type SIP Spider 815 pro, is a hay tedder with 8 rotors and an operating width of 8 m. The rotors have individual suspension and are each fitted with a support wheel. The hay tedder is suspended on a swing drawbar for better manoeuvrability. In the transport position, the tedder can be folded to a width of 2.95 m and a transport height of 2.95 m.

## Silage

- ★ **Monson v/M. van Sonsbeek - Stand No. L-9100**  
Meinard's Silage Care is a water pad for covering silage. It consists of a double tarpaulin with channels which are filled with salt water. It can be applied for covering silage instead of plastic, rubber tyres or sand.
- ★ **Triomec K/S - Stand No. F-5202**  
Silo-twin covering foil is a silo foil produced from methallocene-PE that makes it extra elastic and saves materials. There is a thin under foil. This Silo-twin foil weighs less than ordinary silage foil and is available in widths of from 4-18 m and in lengths of 50, 150 and 300 m.

## Grain treatment

### Drying, winnowing and storage

- ★★ **Jensen ApS, Paul A. - Stand No. D-3112**  
PAJ chamber pipe for grain distributors, types K 160 and K 200. This type of pipe has an integrated four way junction so that the grain cannot rotate when it falls through the pipe. There is quick change connection between the conveyor system and the grain distributor. This ensures an improved, smooth spreading of the grain.
- ★ **Kongskilde Industries A/S - Stand No. D-3110**  
Kongskilde Screen/Air Winnower KDC 4000 is designed for the winnowing of grain, maize, rapeseed and other crops. The pre-winnowing capacity for grain is up to 40 tons per hour. For winnowing and grading malting barley or seed grain the capacity is from 4-10 tons per hour. It is constructed of galvanized steel so that it can also be applied in outdoor installations. The rotating screen is available in many different sizes.
- ★★★ EUR **Kongskilde suction pressure fan, SupraVac 2000**, is a large suction pressure unit for the pneumatic transport of cereal crops with a transport capacity of up to 120 tons per hour. It has a new cell sluice with an acceleration chamber in which the grain is accelerated up to transport speeds of 25 m/second. The grain is led into the vertical air flow instead of the normal horizontal air flow. There is a dust separator installed between the suction cyclone and the fan so that dust does not enter the fan area. The dust is returned to the material on the pressure side of the fan. The unit requires a tractor with a PTO effect of 150 h. p. It is for towing operation and has integrated loading equipment which is hydraulically controlled from the tractor.
- ★ **Lunding, v/Kristian Jensen Bæk - Stand No. D-3118**  
Crop turner for the stirring of grain or seed in level silos or heaps. This consists of a vertical or angled spiral which is powered by a direct electric motor. It is supported by a plate that rests on the surface. The unit is for manual operation in the grainstore.

- ★ **Mertz A/S, Johannes - Stand No. D-3320**  
Neco D 1260 is a mobile grain drying system which is constructed in the same manner as a stationary flow drying system of the beam type in which the grain moves downwards across roof shaped injection and suction channels. The system is equipped with a 20 h. p. fan and has a capacity of 17.7 tons per hour at 82 degrees C.
- ★ **Perstrup Beton Industri A/S - Stand No. K-8000**  
Perstrup Korngrav is a prefabricated granary trench. It is moulded in concrete and designed so that a horizontal conveyor can be installed in the bottom. It is watertight and has a capacity of minimum 43 m<sup>3</sup> or approx. 30 tons grain.

### Harvesting and treatment of vegetables/root crops

- ★ **Hylleberg A/S - Stand No. M-9714**  
Frigortek Combi-Vent, ventilating and cooling system for potato and carrot stores is mobile and only requires connection to electricity. A shutter opens and closes when required so that inside and outside air is mixed to attain the desired temperature. If the outdoor air is too warm, the cooling system starts operating.
- ★ Frigortek Store humidifier. This is a mobile humidifier system for potato and carrot stores. It only requires connection to electricity and water supplies. Water is pumped via a spray pump via jets connected to a fan. There is a filter (baffle) which removes the water drops and ensures that only moist air is led out into the store. This prevents the crops from being wet.
- ★ Frigortek Mini-Blok, cooling system for potato and carrot stores. This is a mobile cooling system which only requires connection to electricity. The system has thermostatic control so that the system starts automatically if the temperature in the store is too high.
- ★ **SAMKA VEJLE A/S - Stand No. M-9632**  
Samro Video-grading machine, type GS 2415-3, that size grades potatoes. Cameras measure the potatoes for diameter, length, shape and weight. The desired size can be set in only a few seconds - instead of having to change grading riddles. The machine facilitates three different gradings - including long-shaped potatoes.

## Animal Husbandry

### Equipment, machines, installations and fittings for livestock housing

#### Feed preparation, feeders and drinkers

- Big Dutchman (Skandinavien) A/S - Stand No. J3-7704**
- ★★ BDS mill unit, type EV12, is a newly-developed mini bucket elevator which is loaded from the base. This bucket elevator is applied in connection with single or double mill units that have a requirement for vertical lifting of the milled feed.
- ★★ BDS mill unit, type RS200, is a newly developed type of sieve helical conveyor designed for the screening of raw goods prior to milling on a single or double mill unit. The helical conveyor, which is tilted at a 45 degree angle, is constructed with two screens. The lower screen removes sand and the upper screen permits the grain to pass for grinding. Any matter that cannot pass through the two screens is removed via an outlet at the top of the helical conveyor. A subsidiary helical is fitted at the lower screen which removes dust from the screening process. Both shutters can be automatically regulated via a PLC controlled shutter motor so that the lower screen closes and the upper screen opens when soy meal or similar goods are to be milled.
- MHJ Agroteknik A/S - Stand No. K-8006**  
**Vitfoss - Stand No. K-8206**
- ★ MHJ 7.5 t silo is a silo that is specially constructed for minerals. The silo is equipped with a screw which can automatically stir the mineral mix to ensure a continuous, homogenous mix. In consideration of the high density of the minerals, the silo is constructed of a higher gauge of fiberglass than that usually applied for feed silos.
- Mosegården A/S - Stand No. J3-7804**
- ★ Bigbag Silo, type BS-1200, is a newly developed silo for the emptying of big bags. The tipping pit is constructed of heavy-gauge, machine bent, galvanized steel plate sections which are bolted together. The hopper in the tipping pit can also be delivered in stainless steel to avoid corrosion when applying mineral mixes with salt contents.
- Orla Hansen A/S - Stand No. D-3212**  
**Vitfoss - Stand No. K-8206**
- ★★ Flex-Mineral-Silo® is an indoor silo for the storage of bulk, mineral-enriched feedstuffs. The silo consists of a steel frame which supports a silo bag. The silo bag is of polyester fiber. In order to prevent moisture absorption, which would cause the mineralized feeds to adhere to the silo bag, the inside of the bag has been specially coated. This coating also prevents bridging of the

feed. A cyclone is used for intake of the minerals to avoid mineral separation. A filter is fitted at the cyclone exhaust to remove dust.

**SKIOLD A/S - Stand No. J2-7400**

- ★ UB40 and UB40-W hammer mills are newly developed mills for the grinding of feed. The Type UB40 is intended for the milling of raw goods with a moisture content of 20 percent. The Type UB40-W is intended for raw goods with a moisture content of up to 40 percent. Both types of mills are equipped with 40 balanced flails which are available with hard metal reinforcement for longer durability. The intake of raw goods to the mill is available with either a speed controlled helical or direct from a silo via an integrated shutter. Transport of the milled feedstuffs from the mill is effectuated with either a trough worm conveyor or an elevator.

**Feed preparation, feeders and drinkers - for cattle housing**

**Domino A/S, W. - Stand No. J3-7710**

- ★ The FH-D is an automatic feeder for dry feeds for calves. This automatic feeder has 2 feeding points and can be positioned at a box separation wall so that the feeder can supply two calf boxes.

**Ingemann Larsen A/S - Stand No. M-9608**

- ★ Strautmann Verti-Mix Double Konisch is a vertical complete feed mixer with two worm conveyors. The two mixing helicals have different diameters and the rear helical has the smallest diameter. This also applies to the mixing tank which is narrowest at the rear. This facilitates the fitting of smaller tyres and thus a lower loading height is attained. The Strautmann Verti-Mix Double Konisch is manufactured by B. Strautmann & Söhne GmbH & Co. KG in Germany and is marketed in Denmark by Ingemann Larsen A/S.

**Keenan System - Stand No. H-6213**

- ★ Keenan Klassik, type FP280, is a 28 cu.m. complete feed mixer with 6 reels. The Keenan Klassik is manufactured by Richard Keenan & Co. in Ireland and Brdr. Holst Sørensen has the sole agency for Denmark.

**Rioh / Agro - Stand No. H-6214**

- ★ Rioh Sputnik Hængebane is an overhead transport system for distributing feeds to tethering and loose operation stalls. The system offers point feeding (kg. per cow unit) or distance feeding (kg. per metre).

**Triomec K/S - Stand No. F-5202**

- ★★ Faresin Leader is a self propelled and self-loading, vertical complete feed mixer with a volume of up to 26 cu.m. The mixer has crab control and 4WD. It is manufactured by Faresin Agri Division spa in Italy and is marketed in Denmark by Triomec k/s.



**Vivet - Stand No. K-8300**

- ★ The K25 is a transponder controlled feed concentrate mixer for calves. The K25 is manufactured by Urban Dein Germany and is marketed in Denmark by Vivet.

**Feed preparation, feeders and drinkers - for pig housing****ACO Funki A/S - Stand No. J1-7106**

- ★★ FunkiNet AutoFeed and FunkiNet Mill have both received a newly developed function for the automatic control of the intake conveyor speed. This function involves the load on the mill being keyed in on the control as an ampere consumption. In stead of the intake conveyor speed being defined as a fixed frequency, depending on the raw goods involved, the speed is now regulated in accordance with the actual load on the mill.
- ★ FunkiNet DryFeed Control is a newly developed feeding point station and control program for dry feeding. The feeding system is installed with one or two filling systems plus a number of section systems. By applying two filling systems, it is possible to attain a gradual transfer between two feed mixes. By calibrating and monitoring the feed point and calculating the volume of feed in the pipeling, it is possible to determine the daily feed intake of the pigs at section level with a certainty of +/- 1 percent.
- ★ FunkiNet Multi DryFeed is a newly developed control system for dry feeding systems. This control enables the mixing of feed from two silos within the same dry feeding system. This facilitates a gradual transfer between two feed mixes. The system's technical function involves the individual frequency control of the speeds of the two feeding stations.
- ★ VD4 is a newly developed volume dosage unit for dry feeding. The VD4 is available in 6, 8 and 10 liter sizes. The tank is fitted with an inspection opening for cleaning and the introduction of additives for the individual volume dosage unit. The release mechanism can be operated even when the volume dosage unit is filled with feed.

**Big Dutchman (Skandinavien) A/S - Stand No. J3-7704**

- ★★★ DK BD5 Hydromix is a newly developed feed valve for wet feeding systems. The valve housing, which is made of plastic, is fitted without adhesives to the feed line and the down pipe by using packing rings. The valve housing and the valve cover have threaded joints. This means that membrane replacement does not require tools and that the valve has a high degree of pressure stability. This is due to the fact that there is a uniform pressure on the entire membrane from the valve cover.
- ★ P620 Hydromix is a new series of programs for the control of wet feeding systems. These programs facilitate an integrated application platform between the PC and the P620 process program, e.g., with feeding graphs for lactating sows, monitoring of wear-and-tear, integrated Mikros, residual optimization of component level, new PDA solutions and new functions in Visual Farm.

- BoPil A/S - Stand No. J1-7104**
- ★★ Adjustable constriction in the Schauer transponder station for young pigs. This is an adjustable fitting produced from plastic planks. These facilitate the regulation of the widths of the transponder stations in accordance to the actual size of the animals involved.
  - ★ The Spotmix oil dosage unit is a newly developed pump which is used for the application of oil to dry feeds with a view to increasing the energy content of the feed mixes and to reduce dust problems. The pump can provide dosages of down to a few grams per kilogram.
  - ★★ Bopil wet feed tanks are now available in sizes of up to 4,500 l. In order to ensure a homogenous mix of the wet feed, a new stirring unit has been developed. This wet feed tank is manufactured by BoPil / Schauer and is marketed by BoPil A/S.
  - ★ This Alarm System is applied in connection with Spotmix feeding systems , for example, for the registration of empty raw goods silos or for transponder feeding points for gestating sows. The alarm signal is sent to the farmer via the GSM network or as an analog signal via the normal telephone network.
  - ★★ The Klik corner wheel is a newly developed corner wheel for 60 mm chain feeding systems. The corner wheel is connected with spring-loaded clips and fitting/opening does not require tools of any kind. The upper side of the corner wheel is produced from transparent plastic to ensure that operation can be inspected whilst the feeding system is operating.
- Domino A/S, W. - Stand No. J3-7710**
- ★★ Domino Quick Starter is a system for the automatic provision of dry feed in troughs to piglets. The system has a feed tank and a feeding unit that consists of a square base tank with dosage slots plus a thrust rod which is pushed over the dosage slots by a motor. The system, which is produced from PE boards and stainless steel, is fitted above a long trough and can be moved between several sties. Control and programming are effectuated via a PDA. The duration of the feeding period, the feed graph, number of feedings per day and the feed day plan are keyed in on the PDA.
  - ★ Domino Milk-Feeder-Container, type MFC-310, is an automatic milk feeder for weaned piglets. This feeder automatically mixes milk substitutes with warm water and dispenses the mix in a trough in the sty. It is possible to install an extra container for minerals, etc. The automatic feeder can supply milk feeds to up to 14 sties with 12-20 piglets in each sty. Feeding is regulated by a feeding graph at sty level. The Domino Milk-Feeder-Container is manufactured by Domino and Förster Technik and is marketed by Domino A/S.
- Højer FarmTech a/s, Hans - Stand No. K-8110**
- ★★★ EUR Need for Feed is a new facility for Fancom's wet feeding systems which means that the system automatically adjusts feed dispersion on a basis of

the livestock's feeding pattern and a feeding graph. A sensor which is positioned at each trough registers how quickly the feed is eaten and the feeding computer can adjust the feed quantity for the next feeding. If the portion is quickly finished, then this is an indication that the livestock can eat more feed and the actual quantity can be increased. On the other hand, if the livestock takes a longer time to finish the portion, then the feed quantity is reduced for the next feeding. Need for Feed is produced by Fancom B.V. and is marketed by Hans Højer Farm Tech a/s.

- Hyo-Nord - Stand No. L-9006**  
★★ Millimix-C is an electronic medicine mixer that can add two types of medicine. The Millimix-C has a timer function that can control dosage on an hourly or daily basis. In addition, it has temperature dependent dosage so that dosage can be automatically reduced when increased temperature/consumption is registered. In addition to dosage to drinking systems, it can also be applied as a dosage unit for, for example, dry feed mixers.
- Impeks - Stand No. J3-7806**  
★ Mini-Liq Doser is a central dosage unit that can add medicine, electrolytes, etc. to a separate drinking system in, for example, farrowing boxes. The unit has a 25 l tank with moveable suspension and can supply up to 15 sties.
- OK Plast - Stand No. J1-7204**  
★★ Young Line, type E2C, OK No. 461, is a newly developed automatic feeder for weaned piglets and porkers. The feed tank and the troughs are made of injection moulded plastic as two independent parts. The troughs are available in two sizes - for weaned piglets or porkers. For weaned piglets, the troughs are also available as long troughs for restrictive feeding. The feed tank is installed on sty dividers with stainless-steel fixtures. The feed tank can be raised to facilitate cleaning or trough change. Following cleaning or change-over, the feed tank is lowered and locked onto the sty divider which simultaneously locks the trough.
- SKIOLD A/S - Stand No. J2-7400**  
★★ Maximat Aqua is a newly developed automatic drinker for weaned piglets. This automatic drinker is constructed of stainless steel and is for installation in the pen dividers. The drinking trough has spring suspension. When emptying and cleaning the trough one only has to step on the edge of the trough. This automatic drinker is available with aqua level or drinking nipple.
- ★★★ EUR Maximat Pork and Maximat Wean are two newly developed automatic feeders for porkers and weaners respectively. The upper section of the feeder is of plastic and slip edges are included on the hopper at exposed areas. The oval hopper and slip edges are designed to avoid bridging of the feed. The dosage unit is designed so that moisture from the pig snouts does not come into contact with the feed in the hopper. The Maximat Pork feed

trough is produced from up-driven stainless steel whereas the Maximat Wean trough is produced from polyester concrete.

- ★ This Spray System is designed for the treatment of livestock which are present in the feeding station. The spray mist can be directed at the animals' legs, abdomens or shoulders. The computer can register which animals are to be treated and at which intervals.

### **Ventilation, air purifying, housing climate and heating**

#### **Anteco A/S - Stand No. D-3000**

- ★★ Multifan, type T 4E50 Nozzle, is applied for the mixing of air and for the cooling of pigs, poultry and milking parlours plus greenhouses. The unit consists of a fan plus 8 nozzles for water spraying which is installed on the netting grid on the front of the fan. When cooling, the fan can either be applied alone or increased cooling can be attained by spraying water into the air flow. The Multifan, type T4E50 Nozzle, is manufactured by Voermasters Ventilation B.V. in Holland and is marketed by Anteco A/S.

#### **Højer FarmTech a/s, Hans - Stand No. K-8110**

- ★★★ EUR Clima Constant is a system for the cooling or heating of ventilation air. Cooling or heating applies subsoil water which is pumped through a heat exchanger which is installed in connection with the air intake to the livestock housing. Alternatively, the system can be established as a closed circuit with heating/cooling hosing set in the ground. Due to a stable temperature in the subsoil water/soil of 8-9 degrees C, the temperature in the fresh air can either be lowered on warm days or increased on cold days. The comfort of livestock and personnel can thus be improved all year and the energy requirements for heating in the winter months can be reduced. Clima Constant is manufactured by Bovema S-air B.V. in Holland and the dealer is Hans Højer FarmTech A/S.
- ★★★ EUR Comfort 500 intake, type 230/35, is a newly developed air intake for pig houses. The air intake is made of stainless steel and is positioned immediately above the livestock area, for example, in the covered zone in a piglet pen. By introducing the fresh air close to the pigs, the air volume can be reduced by 20-50% in comparison with ventilation systems in which the air is added via a diffuse air intake or via shutters. In this manner, the size of the ventilation system can be reduced - and both power consumption and odour emission can also be reduced.

#### **Højer FarmTech a/s, Hans - Stand No. K-8110**

- ★★ Lodour 50+ Air Purifier has been developed to reduce odour emission from poultry and pig housing. The purifier is constructed from knockproof polypropylene panels. The actual purifier unit consists of a filter element made of propylene and a sprinkling system. During the purification process, the ventilation air is carried by a ventilation channel from the livestock housing

and through the filter element which is sprinkled with water. The biofilm which grows on the filter collects the odour particles. Lodour50+ can be integrated with the ECO95+ which is applied for the removal of ammonia from ventilation air. Lodour50+ is manufactured by Bovema S-air B.V. in Holland and the dealer is Hans Højer FarmTech A/S.

**Rexlan Europe ApS - Stand No. L-9322**

- ★ HL-Biofilter, type HL-245/160, is a biofilter which is applied for the purification of ventilation air from livestock housing. The filter consists of a cassette based stainless-steel module with an integrated pressure chamber, filter material consisting of various types of wooden rods and wood chips, impregnation material for the promotion of biological activity within the filter, plus a sprinkler system for the maintenance of a suitable humidity in the filter material. The ventilation air is passed through the pressure chamber and through the filter unit in which both odour and ammonia emissions are reduced. The HL-Biofilter, type HL-245/160 is manufactured by HL-Biofilter in Germany and is marketed by Rexlan Europe ApS.

**Scan-Airclean A/S - Stand No. J1-7108**

- ★ Central Airclean System is a central air purifier for the reduction of odour and ammonia emissions. The system is installed in a cleaner housing in the roof construction of the livestock buildings. The cleaner housing is constructed of lightweight plastic modules. The air purifier is a two-stage system consisting of two vertical filter walls which are sprinkled with a purification fluid. In stage 1, the filter is sprinkled with an acidic water solution that removes ammonia and, in stage 2, the filter is sprinkled with pure water for the reduction of odour emission. The ventilation air is led to the cleaning housing via a central ventilation channel in the loft area. The Central Airclean System is manufactured by Stienen, Inno+, ITB, Holland and Scan AirClean A/S and is marketed by Scan-Airclean A/S.
- ★★ Central Climate Control System is a ventilation system that is applied in connection with a central exhaust channel. The system consists of pressure stabilized SGS fans which are positioned between the central exhaust channel and the air exhaust or an air purifier plus up to 10 AQC exhaust units which are positioned between the stall sections and the central exhaust channel. The SGS fans are frequency regulated and the performance of the AQC exhaust units is further enhanced by guage wings which register the actual air replacement in the individual livestock housing section. The Central Climate Control System is manufactured by Stienen Bedrijftselectronica B.V. in Holland and is marketed by Scan-Airclean A/S.
- ★★★ DK Temperature Control System cooling/heating system is a system for the cooling/heating of ventilation air. Cooling or heating is effectuated by water circulating through approximately 1,000 metres of plastic hosing which is buried at a depth of 2 - 4 metres. The water circulates via a number of heat exchangers which are positioned in the gables at loft level in the livestock

housing. The temperature of the air intake can be retained between +8 and +18 degrees C all year round instead of the normal -10 to +27 degrees C. With a more constant temperature in the air intake the air exchange rate can be reduced by half, thus reducing energy consumption and odour emission and improving productivity and general welfare. This Temperature Control System is manufactured by Inno+ B.V. in Holland and is marketed by Scan-Airclean A/S.

- ★ **SKIOLD A/S - Stand No. J2-7400**  
SE Evapocool is a high pressure cooling system for livestock housing. The system consists of a high pressure pump with V-belt drive and a pipeline system with spray nozzles. The V-belt drive means that pump revolutions can be reduced thus reducing wear and noise from the pump. The tips of the nozzles are constructed so that they can be dismantled and cleared of eventual lime deposits. By spraying water in the livestock housing, the temperature is lowered and dust is subdued. The SE Evapocool is manufactured by Pro-Air and marketed by SKIOLD A/S.
- ★ **Skov A/S - Stand No. K-8210**  
Skov Biological Air Purification is a newly developed modular based concept for air purification. The system consists of a number of modules corresponding to the volume of ventilation air to be purified. Each filter is constructed as a pre-fabricated unit with a purification capacity of 39,000 m<sup>3</sup> ventilation air. The actual filter is a two-stage filter consisting of vertical units which are sprinkled with water. Ammonia and odour particles are reduced in both filters whilst the greater amount of dust is removed in the first stage.
- ★★ DA 1500 ceiling vent LPV is a newly developed fresh air intake for pig and poultry housing. The vent flap is designed so that the air is always led lengthwise along the ceiling. This ensures that the fresh air is mixed with minimum ventilation whilst the air speed at maximum ventilation is still so high that the livestock is cooled.
- ★ **Turbovent Agro A/S - Stand No. K-8306**  
Duplex Gardin is a curtain system for the regulation of natural ventilation in livestock housing. The curtain can be rolled from the top downwards and from the bottom upwards. The guide rods on the curtains can be removed so that there is a wide access to the housing unit if required.
- ★ This pulsation fan is an intake and exhaust unit for mechanically ventilated livestock housing. The fan is equipped with a radial shutter which is regulated with a Linak motor. When there is an intake of fresh air, the radial shutter is angled so that the air is mixed equally and evenly distributed throughout the housing unit. At the exhaust stage, the rotation direction of the fan is reversed and the radial shutter is fully opened so that air resistance is reduced to a minimum.

- ★ FarmMaster is new and improved software for FarmMaster/Center controls for climate regulation. The control unit can be set in four new modes: Pre-washing, washing, empty housing unit and heating. In each mode, heat addition, ventilation, alarms, etc. are set. The controls can also regulate temperature in two zones within the housing unit so that the livestock's requirements in the resting area and in the activity area can be individually regulated.

**VengSystem A/S - Stand No. M-9502**

- ★ VengSystem is applied for the continuous measurement of ammonia emission from livestock housing. The system consists of a centrally placed control computer and an ammonia sensor. Ventilation air is pumped from each air exhaust via hoses to the ammonia sensor which continuously measures the concentration of ammonia in the ventilation air. A sensor is also installed in the air exhaust for the measurement of the actual air volume in the flue. By comparing the ammonia concentration with the actual air volume, the ammonia emission is calculated and stored in the memory of the computer. Ammonia data can later be applied as documentation for the relevant authorities.

- ★★★ EUR The newly developed climate control system from VengSystem controls and documents that the climate in the transport vehicle is as it should be. At a number of central points, the content of CO<sup>2</sup> in the air is measured and above each pen infrared temperature readers are fitted which measure the surface temperatures of the livestock. Finally, the fan revolutions are registered plus the continuous water consumption. Independent of the control, there is alarm equipment which reacts if an error occurs. All relevant information is clearly indicated on a screen in the driving cabin. All the gathered data is also collated on a PC.

**VengSystem A/S - Stand No. M-9502**

- ★ VengSystem, types VE122 and VE 122T are further developments of former versions of heating lamp controls. Both types of control are available without infrared temperature sensors which reduces the price by 40%. The heat is reduced on a daily basis in accordance with a graph which is integrated in the control and the heat is switched off at a particular livestock age. The VE122T also measures the temperature in the actual pen. When the temperature is so high that the piglets leave the den, the heating is automatically reduced or the heating lamp is automatically switched off. Prior to an anticipated farrowing, the controls can be set to pre-heat the piglet den at a lower heat. This ensures power savings.

**Milking**

**DeLaval A/S - Stand No. F-5200**

- ★ DeLaval Milking Place-Control Units MP510 and MP610. The MP510 is positioned at each milking place and has basic functions for milking and



control of milk flow. The display shows milking sequence and eventually also cow identification. One MP610 system unit is used for an entire milking parlour. This is linked to the system's Herd Management processor for transference of data. The MP610 unit is applied for the keying in or correction of data on the MP510 units. MP510 and MP610 are manufactured by DeLaval in Sweden and are marketed in Denmark by DeLaval A/S.

**Lely DK A/S - Stand No. M-9606**

★★★ EUR Lely Astronaut A3-milking system is an Automatic Milking System (AMS) of the single box type. This milking system has individual pulsation at gland level technology which is called 4Effect. The milking system has a MQC unit (Milk Quality Control) that measures the conductivity and colour of the milk. This unit can be supplemented with extra equipment – MQC-C – that measures cell counts at gland level. X-Link is a touch display that is positioned on the milking unit and which enables monitoring of the milking system's operation and eventual correction work. The system has a powerful, newly developed robot arm. The cow stands in the milking box on a weighing plate with rubber matting. The weighing plate registers where the cow is positioned in the milking box and thus controls the lengthwise position of the robot arm at the box. The Lely Astronaut A3-milking system is manufactured by Lely Industries NV in Holland and is marketed in Denmark by Lely Danmark A/S.

★★ Lely Shuttle is an automatic sampler system for the procurement of milk samples from an Automatic Milking System (AMS). The milk sampler system records the sample's bar code number and the cow's ID number in a manual terminal and thus saves time for the farmer when sorting samples. The Lely Shuttle is manufactured by Lely Industries NV in Holland and is marketed in Denmark by Lely Danmark A/S.

**Lars H. Grotien A/S - Stand No. J1-7208**

★ Lagrotek pre-spray is a system for the prior spraying of cows before milking. When a cow has moved onto the platform on the milking carousel, two sensors register that the cow has entered the milking point. The udder is then briefly sprayed with a pre-spray fluid. This softens the dirt on the udder.

**LM Dairy Service / Bou-Matic - Stand No. F-5302**

★★ Bou-Matic Parlor Metrix is a system for the optimization of milking and milking work routines. The purpose of the Parlor Metrix is to optimize productivity in milking parlours. Via automatic registration of time consumed, various graphic indications can be generated so that, for example, milking work routines can be evaluated and improved. Bou-Matic Parlor Metrix is produced by Bou-Matic LLC in USA and is marketed in Denmark by LM -Dairy Service.

**LM Dairy Service / Bou-Matic - Stand No. F-5302**

★★★ EUR Bou-Matic Step Metrix is a system for the determination of halt cows. The cows cross a weighing plate on which the cow's pressure on the weighing plate is converted to a measurement as to whether the cow is halt or not.



If the weighing plate is positioned in the return passage following milking, then cows which are halt can be sorted out for treatment in a separation-/treatment box. Bou-Matic Step Metrix is manufactured by Bou-Matic LLC in the USA LM -Dairy Service is the dealer in Denmark.

**Pharmalett A/S - Stand No. K-8402**

- ★★★ EUR Thrifty Dipper is a “brush dipper” for the application of udder disinfection. It is constructed as a traditional teat dip bottle but the lid has brushes which ensure that the excess dip fluid is returned to the bottle. The Thrifty Dipper is produced by Mastitis Management Tools, Inc. in the USA and is marketed in Denmark by Pharmalett A/S.

**Robot Milking Solutions Skandinavien A/S - Stand No. M-9628**

- ★★ Titan Milking Robot is an automatic milking system of the multi-box type. Titan is constructed with a robot arm that can serve from 2 to 5 milking boxes. The entire system is constructed of stainless steel. The Titan is controlled by the Titan Data Manager, which functions via Windows XP. The system operates via touch-screen and external links can be made, for example, via internet and PDA.

**Strangko A/S - Stand No. F-5212**

- ★ Strangko Swing-Over is an arm for installation in swing-over milking boxes. The milking set is positioned between milking points at both sides and it can move from side to side depending on which side is to be milked. The display is positioned at the top of the arm.

**WestfaliaSurge - Stand No. F-5210**

- ★ PosiCare is a service arm that carries the milking set and simultaneously functions as a hose steering unit. PosiCare is manufactured by WestfaliaSurge GmbH in Germany and is marketed in Denmark by WestfaliaSurge.

**Chopping and spreading of straw**

**BoPil A/S - Stand No. J1-7104**

- ★ Bopil Transport System is applied for the transport of straw from the shredder to the dosage system in pens or boxes at a distance of up to 100 metres. The system consists of a fan unit, a connecting pipe and a cyclone. Dust is removed from the straw in the cyclone prior to transport to the dosage system. This transport system can be applied for several pen/box sections by installing flap boxes on the fan pipe.

**Rioh / Agro - Stand No. H-6214**

- ★ Rioh Apollo is a is an overhead litter spreader. The litter bale is placed on a base chain which draws the bale over to two shredder rollers. The straw then falls onto two spreader discs.

- ★ Rloh Jumbo 4000 is a spreader machine for installation on tractors, mini-loaders and telescopic loaders. The bale slides down to a shredder and the litter is then blown into the pens or boxes.
- ★ Rloh SS 1500 is a self-propelled, combined scraper, sweeper and litter spreader for use in resting boxes. As standard, the litter container has a volume of 1,500 liters. An extension can increase the volume to 2,000 liters. Sawdust and shredded straw can be applied as litter.

### Dung clearance, handling and storage of manure/dung

- ★★ **Cow-Shopping ApS - Stand No. L-9314**  
JOZ Electronic Control Box is for the control of scraping systems in livestock housing. This control has, among other features, temperature monitoring, so that the system automatically starts if the temperature level falls and there could be a risk of the muck freezing fast to the flooring. It is also possible to use the system for herding, if the cows are driven together for milking in a scraper passage. The JOZ Electronic Control Box is manufactured by JOZ b.v. in Holland and is marketed in Denmark by Cow-Shopping ApS.
- ★ JOZ Two-way Scraper is a manure scraper which operates both ways in scraper passages. The actual scraper boom can be folded so that it matches the litter spreader, etc. The JOZ Two-way Scraper is manufactured by JOZ b.v. in Holland and is marketed in Denmark by Cow-Shopping ApS.
- ★★★ EUR **Harsø Maskiner A/S - Stand No. G-4704**  
Harsø Pneumatic Addition for long pump pipelines with heavy slurry is founded on the principle that a fluid's density is considerably reduced when air is added. This reduces friction in the pump pipelines which, in practice, means that the thrust capacity of the slurry pump is increased. The air can also be applied for clearing the pipelines.
- ★ **Højgaard's Maskinfabrik ApS - Stand No. J2-7312**  
Wintex Cover is a synthetic floating cover for slurry tanks. The floating cover consists of hexagonal bricks produced from UV-protected HP polyethylene. These polyethylene bricks are poured into the slurry tank and then spread themselves over the surface in a tight floating cover. Wintex Cover is produced by Gravenhorst Plast and the Danish dealer is Højgaard's Maskinfabrik ApS.
- ★★ **Mullerup A/S, Skiold - Stand No. J2-7404**  
Mullerup Silent is a hydraulic power unit for scraping systems in livestock housing. The selected type of pump reduces noise levels in comparison with existing products.
- ★★ Mullman 700 is a control unit for scraping systems in livestock housing. The control has, among other features, temperature monitoring, so that the system automatically starts if the temperature level falls and there is a risk

that the muck could freeze fast to the flooring. External alarm warning is also feasible via mobile telephone (SMS), warning lamps or alarm bells.

- ★ **Staring Miljø A/S - Stand No. G-4726**  
PC Control is a control system for the Staring Miljø A/S acidification system for sulphate. The PC Control continuously registers and documents the pH value of the slurry, sulphate consumption, alarms and the operating hours of the system. All data is presented on the PC and via internet.
- ★★ **Strangko A/S - Stand No. F-5212**  
Strangko Loose operation Scraper is a scraper system for loose operation systems. The control system has, among other features, temperature monitoring, so that the system automatically starts if the temperature level falls and there is a risk that the muck could freeze fast. It is also possible to use the system for herding, if the cows are driven together for milking in a scraper passage.
- ★ **Triomec K/S - Stand No. F-5202**  
Betebe Scraper System. This is a scraper system for slotted and solid flooring in loose operation systems. The Betebe Scraper System is manufactured by Betebe GmbH, Germany and the Danish dealer Triomec k/s.

#### **Fittings, equipment and building components**

- ★ **Polysan A/S - Stand No. L-9304**  
Polysan drainage well 15-15 B is a flow and purification well made of polymer concrete.

#### **Fittings, equipment and building components - for cattle**

- ★ **Fremtiden Staldinventar A/S - Stand No. L-9220**  
Fremtiden EasyFix Gummigulv is a rubber surface for slotted flooring. The rubber elements are laid out on the slotted flooring without screw requirements. The actual tread surface is 22 mm in the middle and 18 mm at the slots and thus provides excellent drainage. Fremtiden EasyFix Gummigulv is manufactured by Agriprom Stalmatten B.V., Holland and is marketed in Denmark by Fremtiden Staldinventar A/S.
- ★ **Polysan A/S - Stand No. L-9304**  
Polysan Foderbordsplade 9-120 is a feeder crib in polymer concrete with a low rear edge. The cribs are available in widths of 800, 900, 1000, or 1200 mm.
- ★ **Strangko A/S - Stand No. F-5212**  
Strangko selektionsboks „Heavy Duty“ is a selection box for the sorting of dairy cows with electronic eartags. The cows are separated with Texas

gates at front and rear and are then admitted to a separation box or to a milking group. The selection box can be equipped with a heated panel box so that the controls are protected against frost conditions.

### **Fittings, equipment and building components - for pigs**

#### **Agro Products A/S - Stand No. M-9624**

- ★★ AP remote-controlled boar passage gates for application in rutting sections with boxes. The gate, which is available in solid or partially open constructions, can be opened or closed from both sides. The gate's opening/closing mechanism is operated via a lever link which is installed on the box. The gate can thus be operated from the work area in the rutting unit. The AP remote-controlled boar passage gate is manufactured and marketed by AP Products A/S

- ★ Howema TriSort 3-way weight sorter is applied for the weighing and sorting of porkers in large herds into 3 groups. The two groups are applied for feeding with various types of feed depending on the weight of the pigs in the group. The third weight group is applied for delivery to the slaughterhouse. The weight sorter can be supplied with colour marking in two colours so that excessively heavy or lightweight porkers can be marked. Winsort is a control and communication program which is applied between the Howema TriSort 3-way weight sorter and the Howema WetMix wet feeding computer or the DryMatic. When connected, the data from weighing and sorting can be applied for preparation of the feeding computer's feeding graphs. The Howema TriSort 3-way weight sorter and Howema Winsort are produced by Howema Gerätebau GmbH in Germany and the Danish dealer is Agro Products A/S

#### **DanBox Danmark ApS - Stand No. L-9114**

- ★ Relief pen, types AB 1-3 and AB 2-5, are for application in weaning units. The relief pen is constructed of 12 mm plastic boards and plastic grids. The pen can be positioned in a weaning sty without taking up space due to the fact that it is raised 60 cm above floor level. When the relief pen is not in use, it can be packed down so that it only requires one-third of its normal space.

#### **Egebjerg Maskinfabrik A/S - Stand No. M-9600**

- ★ INN-O-STALL® is a universal box for rutting/gestation units. By applying the same section units, the length of the box can be adapted to the various sizes of the sows - 190, 200 and 210 cm. The variation between 190 and 200 cm is attained by reversing the rear gate. By inserting a front extension section, the length of the box can be either 200 or 210 cm depending on which way the rear gate is turned.
- ★ INN-O-STALL® is a feeding/resting box for rutting/gestation units. By applying the same section units, the length of the box can be adapted to the various sizes of the sows. By inserting a front extension section, the length of the box can be either 200 or 210 cm.

### **New Products - Agromek 2006**

- ★ CLEAN-O-FLEX® 35/125 mm plastic planks are applied for unit sides in piglet, porker and farrowing pens. These are PVC planks and are built in a zig-zag construction to ensure stability against twisting. The planks are joint together with a click system and an adhesive rubber stripping ensures a tight seal.
- ★ MASTER FLOOR® is a cast-iron grid flooring for piglets, from the weaning to slaughter stage and porkers. The grids for piglets and WTS pigs is supplied in lengths of 2000 mm and is self-supportive. Both the tread area and the slots are 12.5 mm. The grids for porkers are available in lengths of 1600 mm with tread widths of 30 mm and slot openings of 15 mm. Both types have an integrated clearance opening at one end of the grid.
- Polysan A/S - Stand No. L-9304**
- ★ Polysan Pig Cribs 24-34 are for sow pens. The crib, which is made of polyester concrete has a width of 340 mm. The front edge is 170 mm whilst the rear edge is 240 mm which provides a capacity of 40 liters per crib. Both the front and rear edges are vertical in order to minimize the space required. The base is inclined towards the front.
- ★ Polysan Pig Crib 14-51R is a wet feed crib which can be applied in weaning to slaughter pens for pigs in the range 7 - 110 kg. The crib is made of polyester concrete. The height of the crib is reduced to ensure that new weaners have easy access to the feed. The inclination of the sides and base are increased which makes it easier for the pigs to keep them clean. There is a narrow hollow in the bottom along the length of the crib to ensure that the feed is quickly dispersed. The crib is installed with the aid of a fitting set which contains fittings and screws plus a special fitting which is intended for the wet feeding system walls manufactured by various brands of installations.

## Production aids

### Articles and tools

- BoPil A/S - Stand No. J1-7104**
- ★ Remote control for the BoPil remote controlled boar truck is applied to steer the boar truck in passageways in front of e.g., feeding/insemination boxes in mating units. The remote control facilitates that the boar can be moved in front of those sows that are to be stimulated without leaving the work area behind the boxes.
- ★ BoPil's eartag scanner is applied for scanning eartags on sows. The scanner, which can be purchased as extra equipment for BoPil's PDA system, is linked to the PDA via Bluetooth.
- Fremtiden Staldinventar A/S - Stand No. L-9220**
- ★★★ EUR Aktiva 3000 is a newly developed truck for the collection and transport of dead sows and boars. The truck consists of a basket with 7 plastic rollers in the

## New Products - Agromek 2006

bottom and a winch tower. When loading the sow/boar, a noose is fastened to the rear leg of the animal and the rope is led up over a pulley in the tower to the winch. When the winch is started, the animal is easily drawn over the plastic rollers and up into the basket. The tower ensures that even extremely large sows/boars can be pulled all the way up into the truck without touching the floor. The truck is fitted with pneumatic tyres with ball bearings. This means that the truck only requires a drive pull of 8 kg with a sow/boar load of 250-300 kg.

**Kruuse A/S, Jørgen - Stand No. L-9202**

- ★★★ EUR Krutech Classic iNSight Ultrasonic Scanner is a newly developed, hand model ultrasonic scanner for the gestation inspection of sows. The probe, display and battery are integrated in an aluminium casing. This eliminates the risk of damage to the probe and cable. The scanner is equipped with a Red-Vision™ display, which increases the visual angle and simultaneously provides a better picture quality - even in highly lit surroundings. The scanner is waterproof with an IP 65 value which means that it can be cleaned with running water and then disinfected. This means that the scanner can be used in several herds without the risk of transferring infection. Scanner adjustment is automatic so that only display illumination and on/off switching is manual. The Krutech Classic iNSight Ultrasonic Scanner is produced by Classic Imaging in Holland and the Danish dealer is Kruuse A/S.

**Monson v/M. van Sonsbeek - Stand No. L-9100**

- ★★ Meinard's Hoofcare box is a hoof trimming box for fitting onto suppression grids. The cows are held by the suppression grids and the hoof trimming box can then be moved to the relevant cow for trimming operations.

**SKIOLD A/S - Stand No. J2-7400**

- ★ Sortie is a weighing/sorting system for porkers in large herds. The system consists of a weighing unit which the porkers are obliged to pass in order to gain access to feeding sections. On the basis of the pigs' weights they are led, via a sorting gate to one of two feeding sections. In each feeding section, various feeds are supplied so that the pigs can be phase fed. In connection with delivery to the slaughterhouse, one of the feeding sections is discontinued for one or two days per week. Sortie is manufactured by Skiold Nederland and is marketed by SKIOLD A/S.
- ★ Tele Pig Mobile Hand Terminal is a wireless hand terminal (PDA) for SKIOLD feeding systems and ventilation systems. Access to a tele-network means that it is possible to see the actual operational status of wet feeding systems, transponder feeding systems and ventilation systems. If several properties are connected via a broadband link, it is possible to monitor feeding systems and ventilation systems on various properties.

**Unitron Scandinavia A/S - Stand No. M-9504**

- ★★★ EUR Miss'Ter is an apparatus for the fully automatic stimulation of sows in connection with insemination work. The apparatus is shaped like a saddle which is placed on the back of the sow. The saddle is hinged at the top which means that the two sides of the saddle can be moved. This is effectuated by either increasing or slackening the pressure on the sow's groin. The saddle's movement is controlled by a small pneumatic pump which is installed at the top of the saddle. A holder for the semen bag is also fitted on the top of the saddle.

**Unni Aps, Fabrikken - Stand No. L-9002**

- ★★ Unni Lime Spray Truck is applied for the disinfection of livestock housing. The truck consists of a frame with four pneumatic rubber tyres, a 200 l tank and a 230-V pump. The pump is used for both stirring the lime mixture and for the spraying the lime mixture via hoses and a special pipe.

**WestfaliaSurge - Stand No. F-5210**

- ★ WestfaliaSurge Laktationskalender is an electronic lactation calendar. It provides a visual presentation of the status situations of all the cows. The colour on each animal indicates the cow's stage in relation to insemination, gestation examination, etc. The WestfaliaSurge Laktationskalender is produced by WestfaliaSurge GmbH, Germany and is marketed in Denmark by WestfaliaSurge.

**Feeds, feed additives and pharmaceutical products****Aarhusegnens Andel A.m.b.A - Stand No. K-8122**

- ★ Ultimate Copper is a liquid mineral additive that contains amino acid chelated copper mixed in acid. The purpose of this product is to provide a high quantity of digestible copper without exceeding the limit regulations for maximum content. Application of the product demands that the user is registered with permission to apply mixtures with a HACCP approval. If the product is to be administered in the drinking water, then it is required that the user has a test permit from the Plant Directorate.
- ★ Ultimate Zinc is a liquid mineral additive that contains amino acid chelated zinc mixed in acid. The purpose of this product is to provide a high quantity of digestible zinc without exceeding the limit regulations for maximum content. Application of the product demands that the user is registered with permission to apply mixtures with a HACCP approval. If the product is to be administered in the drinking water, then it is required that the user has a test permit from the Plant Directorate.

**Feeds, feed additives and pharmaceutical products - for cattle****Aarhusegnens Andel A.m.b.A - Stand No. K-8122**

- ★ KalveStarter is a starting feed for calves which consists of a structural mix

of whole maize, whole oats, lucerne hay, molasses and pellets. This mix has a higher protein content than traditional feed mixes for calves.

- ★★ **Mosegården A/S - Stand No. J3-7804**  
 AgroVit AfterCalving is a good tasting, water soluble feed additive for cows. It has a high content of easily assimilated energy and also provides calcium, electrolytes and vitamins. The purpose is to provide the cow "renewed" energy following calving, a good lactation start and to prevent milk fever. The product is diluted in 20 litres of water and is provided once after calving. The mixture is drunk by the cow and is therefore easy to administer without requiring force feeding or the use of pumps or other equipment.
- ★ **Vitfoss - Stand No. K-8206**  
 Orange Kalvo is a milk substitute for calves in which part of the protein is vegetable protein in the form of antigen-free soy protein concentrate.
- ★ **Vivet - Stand No. K-8300**  
 AlfaCalf start feed for calves is composed of raw goods that are pressure heated and rolled which ensures careful feeding of young calves aged from one week to approximately 5 weeks. The feed consists of sticky coarse mush with shredded lucerne.

#### **Feeds, feed additives and pharmaceutical products - for pigs**

- ★ **Aarhusegnens Andel A.m.b.A - Stand No. K-8122**  
 Mini Vita/Amino Vita for young pigs from 7-9 kg/9-30 kg are weaning/young pig feeds with a high combination of 5 highly concentrated and easily digestible protein sources which facilitate a high content of amino acids without having too high a protein content. The feeds contain a large amount of heat-treated barley, acids and enzymes. These feed mixes reduce the risk of diarrhoea without compromising nutrient norms.
- ★ **Agro Korn a/s - Stand No. J1-7000**  
 THEPAX® is a liquid feed agent that contains a minimum of 10 billion cells/gram of an inactivated stabilized strain of yeast (*saccharomyces cerevisiae*, ordinary beer yeast). This is provided in doses of 0.5 - 1 per thousand in feeds or with 12 - 25 ml per 100 l water. This feed agent results in more lactobacilli in chickens fed under sterile conditions. Minor company tests point towards a positive effect on porkers.
- ★★ **Biofiber-Damino A/S - Stand No. K-8204**  
 SparkoDan feed supplement (patents pending) is a mixture of colostrum, eggs, fat acids and vitamins/minerals, which is provided orally direct to weak newborn piglets in order to increase their chances for survival.



**Finska Foder AB - Stand No. K-8130**

- ★★★ EUR Pekoni Break is a special feed intended for the reduction of tail biting in pigs. This feed is a feed additive mix with a very high sodium content and possesses a rich fibre feed combination that is beneficial for intestinal health. The product is provided on the floor as soon as there are signs of tail biting. This feed has been tested in a number of herds and it is evident that the product has prevented the spread of tail biting. The pigs must simultaneously have access to normal feed and drinking water.

**Vitfoss - Stand No. K-8206**

- ★★ Fibremin Mikro is a feed additive for sows, young pigs and weaners. Fibremin functions as a rooting material and source of fibre. This feed is now available with added betain which improves the intestinal cells' ability to maintain the osmotic pressure. Tests have shown that betain can increase the villus level in the small intestine following weaning. These effects on the intestines indicate that betain can possibly reduce the risk of diarrhoea in young pigs.
- ★★ Landmix 55XXX OMI are mineral feed mixes for sows and have a combination of specific organic micro-minerals, i.e., organic combined copper, zinc and manganese. The purpose is to improve hoof health in sows by adding minerals that are of importance to hoof growth in an organic combined form. The organic combined minerals have higher digestibility than the same minerals in an inorganic form. The concept has shown a good effect in a before/after test in a Danish sow herd.

**Other production aids****3S A/S - Stand No. K-8106**

- ★★★ EUR WiFix is a sterile semi-permeable, waterproof plaster with a compress. The plaster is applied for the treatment of shoulder sores on sows. Prior to treatment with the plaster, the bristles around the sore are shaved off with a razor and the area is cleaned with water or a salt solution. Prior to placing the plaster on the sore, the compress is coated with high concentrate Aloe Vera Gel (97.5%). The adhesive area of the plaster permits the air to breathe and the semi-permeable surface simultaneously prevents the sore being contaminated with manure and urine. WiFix is produced by Wiotech ApS and is marketed by 3S A/S.

**Kruuse A/S, Jørgen - Stand No. L-9202**

- ★★★ EUR Cervi-Slip™ intrauterine insemination catheter is a catheter for deep insemination. The catheter is flexible and the surface has a hydrophilic coating. This means that, when the catheter is introduced into the sow, the humidity in the uterus will "activate" the hydrophilic coating. This will ease the passage of the catheter without discomfort to the sow. Cervi-Slip is produced by Jørgen Kruuse A/S and Soltech A/S and is marketed by Jørgen Kruuse A/S.

**Strangko A/S - Stand No. F-5212**

- ★★★ EUR Easy Cow Care (ECC) dressing is a dressing for application in the treatment of hoof disorders. ECC consists of a waterproof, biologically decomposable plastic material that dissolves in warm water with a temperature of more than 50 degrees C. The ECC dressing can thus be flushed off the cow's hoof instead of having to cut off dressings. The ECC dressing is produced by Dansk Klæberulle Industri A/S and is marketed by Strangko A/S.

**Wind Agro ApS - Stand No. F-5406**

- ★ Punch-Fit is a flat pack bag for holding boar semen. The semen bag is produced from two layers of plastic film. One end of the bag is open whilst the other end, at which the catheter is fitted, is closed. After having filled the bag with semen, the open end of the bag is sealed and is airtight and knockproof. A resistance membrane is fitted at the opening for the insemination catheter. This ensures a tight seal. Punch-Fit is produced by IMV Technologies in France and is marketed by Wind Agro ApS.

**Transport, Cleaning and Maintenance****Transport equipment and loaders****Bredal A/S, Maskinfabrikken - Stand No. H-6006**

- ★ Bredal Overload Conveyor Screw is intended for installation on Bredal's K-serie models. The conveyor screw is installed at the rear of the spreader and is powered by the tractor's PTO. The unloading rate is 4 m<sup>3</sup>/min. It can thus increase the spreader's range of applications, for example, for the home transport of grain from the combine harvester.

**Helms TMT-Centret A/S - Stand No. M-9634**

- ★ Schäffer 3150 is a new angle-steered mini-loader. It is equipped with a 50 h. p. Kubota motor. The tip load is 1.8 ton and the lifting height is 2.5 m. The dead weight is only 2,500 kg.

- ★ Schäffer 9100Z is an angle-steered, rubber wheeled loader with a 100 h. p. Deutz motor. It has a tip load of more than 3 tons and a lifting height of 3.8 m.

**Midt-Vest Trailers - Stand No. A1-1122**

- ★★ Debon/Cheval Liberté, Van First Pony, is a horse trailer specially built for the transport of ponies and smaller horses. The trailer has therefore a lower dead weight which means that it can be used with the majority of cars. The trailer can accommodate two small horses.

**Scantruck A/S - Stand No. B-2126**

- ★ Manitou Manihoe MLB 625T is a combined ditch digger and telescopic loader. The loader's lifting height is 5.22 m with a load of 2,500 kg. This ditch digger

has offset operation and can be fitted with all known types of excavators. It has a 100 h. p. Perkins motor with turbo. It has 2WD and 4WD plus crab steering.

### Tools and Cleaning

#### **Schurr Gerätebau GmbH - Stand No. F-5220**

- ★ SCHURR Boot Cleaner is a boot cleaner with a horizontal and a semi-circular brush which are both supplied with water for cleaning.

### Power and Heating

#### **EC Power A/S - Stand No. B-2114**

- ★ XRGI<sub>13</sub> is a combined heat and power system for gas operation. In comparison with the company's other systems, which operate on oil and have a motor life of 25,000 hours, this system has a motor that has a technical durability of 30,000 hours and the service intervals have been extended from 5,000 to 7,500 hours.

#### **JS Trading ApS - Stand No. D-3310**

- ★ Farmer 20 is a system for the pressing and filtration of rape-seed oil. It consists of a FARMET DUO oil press, a D 18 filter, a tank with an agitator plus pump and electricity panel.

#### **KVA Diesel - Stand No. B-2202**

- ★ EnerG 32 Bio is a combined power and heating system for fuelling with cold-pressed rape-seed oil. The system supplies an electricity effect of 44 kW and a heat effect of 48 kW. The system can also be equipped to recycle heat from the system's ventilation air - which provides an additional 10% heat.

#### **Landia A/S - Stand No. K-8212**

- ★★★ EUR Bio@Chop Process unit is a system for the sanitation (heat treatment) of animal bi-products in connection with bio gas systems. The system is equipped with automatic control and process registration that comply with the Danish regulations regarding own control of this type of system. The system is particularly special in that a "chopper pump" is integrated in the system for shredding the bio mass and for internal transport within the system.

#### **Liagro - Stand No. B-2300**

- ★ Liagro Benekov R 15 is a stoker boiler for grain, wood pellets, rape-seed grindings, etc. The unit is equipped with electric start, cell sluice between the magazine and the feed screw, plus modulated air control. A new feature involves an external handle for cleaning the boiler, so that the boiler does not have to be opened for cleaning operations, plus the fact that the ash is

continuously removed by an ash screw conveyor. These factors mean that this is a completely closed system that does not cause dust problems in the boiler room.

- ★ Liagro Rape-seed Oil Burners - Clean burn, CB-200-CBT and CB-1500-I, are rape-seed oil burners for, respectively, water and air carried heating. These burners are manufactured in the USA and are marketed in Denmark by LIAGRO.
  - ★ Liagro Rape-seed unit, type BT7, is a system for the pressing and handling of rape-seed. The system consists of a suction cyclone, a cleaning machine for the sorting of stones, etc., a rape-seed press of the screw type and a two chamber residual tank for the rape-seed oil. The system is fitted with various equipment for automatic combined operation with stoker boilers, remote storage of the rape-seed oil, etc.
  - ★ Liagro underground tank, type 5.5, designed for storage of grain or rape-seed in connection with stoker boilers.
- Scan-Airclean A/S - Stand No. J1-7108**
- ★ BiogasCleaner is a system for the clearance of hydrogen sulphide from biogas. The system consists of one or more tanks with a filter material which is sprinkled with a so-called scrubber fluid. The biogas passes through this filter material whereby the hydrogen sulphide binds to the scrubber fluid. The filter can be cleaned without having to empty the filter material from the tank.
- Smedegården - Stand No. D-3406**
- ★ Dansk Stoker Unit's cast-iron boiler in a container. A 20-foot container is equipped as a complete boiler room with stoker system (35-70 kW), flue and self-emptying fuel magazine. The container is ready for connection to a central heating system and electricity supply.
  - ★★★ EUR Chain barrier for installation in boilers for the purposes of "retaining" heat and to collect dust particles. The device activates turbulence prior to smoke exhaustion. A test shows that unburned hydrocarbons cannot be measured in the smoke when this chain barrier is applied.
  - ★ Side installation units in cast-iron boilers. The boiler is cast with openings at both sides for choice of installation. The recesses in the sides of the boiler are unchanged so that there is water in all elements regardless as to which side is used for installation.

## Water and Sanitation

- ★ **AL-KO Ginge A/S - Stand No. A1-1106**  
AL-KO Twin 14000 Combi is a submersion pump for the emptying of water from cellars, etc. It can be applied in polluted or clean water. The changeover

is effectuated by turning the lower section of the pump stand. This pump can draw off water down to a surface rest level of 5 mm.

**Polysan A/S - Stand No. L-9304**

- ★ Polysan Drainage Well, 34-35 B, is a point drainage casing with a grating. The actual casing is produced from polyester concrete and the grating is made of non-corrosive synthetic material.
- ★ Polysan Drainage Well, 43-63 B, is applied in connection with water tap areas in which dirty tools are cleaned. The actual drainage well and the raised drainage hole are produced from polyester concrete and is fitted with a non-corrosive grating. The well is equipped with a reservoir for the precipitation of sludge from tool cleaning operations.

## Buildings and Building components

**Bico-Net Insektsikring - Stand No. J1-7210**

- ★ Bico-net door is an insect protection door for installation on the outsides of façade doors. The net door is produced from a powder enamelled aluminium frame with a plate thickness of 1.5-2.0 mm. Glass cloth is fitted in this frame with rubber band. Mohair brushes are fitted at three sides to seal between the frame and the walls and a double magnet is band is fitted at the front edge for closing the door.

## Management

**ACO Funki A/S - Stand No. J1-7106**

- ★★★ EUR FunkiNet Web feed supply is an internet based software program for registering feed supplies to the pig producer's feed computer. The system operates via the feedstuffs company reports a new feed delivery, via login, in the FunkiNet Web feed supply program. The program then automatically transfers information regarding delivery direct to the feed computer. When the farmer has acknowledged reception control, the information can then be applied in the feed computer. FunkiNet Web feed supply which means that the farmer does not have to record the information from the delivery order. This safeguards against registration errors.

**Dansire / Dansk Kvæg - Stand No. Q-9900**

**Dansk Landbrugsrådgivning, Landscentret /**

**Dansk Kvæg - Stand No. E-4112**

- ★★ KvikKoen PDA-software makes it possible to, via wireless transmission and online via a PDA, to report to the central cattle data base. From the livestock housing, one can report and receive information direct from the cattle data base. KvikKoen is produced and marketed in cooperation between Dansire and Danish Cattle.

- Dansk Landbrugsrådgivning, Landscentret - Stand No. E-4112**
- ★ Lagerjournal Online (Store Journal Online) is an internet based module which is founded on Dansk Markdatabase (Danish Field Data Base) corresponding to Markkort Online (Field Chart Online) The program manages various stores such as pesticide, fertilizers and/or grain stores. This program makes it easier to comply with EU demands for traceability in the food chain.
  - ★ Markjournal Online (Field Journal Online) is an internet based module which is founded on Dansk Markdatabase (Danish Field Data Base), corresponding to Markkort Online (Field Chart Online) module. This is an electronic registration tool that makes it easy for the farmer to register all his actions in the field. It also simplifies preparation of the fertilizing accountancy.
- Højer FarmTech a/s, Hans - Stand No. K-8110**
- ★★★ DK Hans Højer Farm Tech A/S can now deliver the latest poultry computer from Fancom. This computer, the F38, can create an optimum housing climate for broiler production with a smooth transition from minimum ventilation to tunnel ventilation. Consideration is taken to outdoor climatic conditions, i.e., temperature, humidity and wind direction. An outdoor weather station is applied. The housing climate can also be controlled with the aid of a low pressure gauge. In addition to climate control, heating control and feed management, the F38 can provide efficient control of the lighting in the poultry houses. Electronic light sensors facilitate automatic control of lighting so that one, in addition to the lighting program, can attain the desired light level. The F38 is extremely easy to use.
- Turbovent Agro A/S - Stand No. K-8306**
- ★ Turbovent Broiler Breeder Manager is a powerful tool for data collation for application in hatcheries. This tool means that all production relevant data is now collated in a single system. The system provides easily surveyed daily and/or weekly reports (also graphic) from up to four housing units at a time. Comparison with selective reference groups is possible which makes it easy to apply the collated data.
- Uniform Agri DK - Stand No. F-5312**
- ★ Uniform Mobile is software for a PDA. The PDA is applied for recording house unit registrations. The PDA can then be connected to a management system and the data can be transferred for further data treatment and additional data transmission.

## Garden and Parks

- Flex Trading A/S - Stand No. A1-1114**
- ★★ Green Technology, type Bunker Edger, is an edge cutter with a petrol motor which has been developed for application with golf course bunkers. This

machine has a longer blade and is equipped with support wheels so that the machine does not slide into the bunker.

**Fog A/S, Henrik A. - Stand No. A1-1208**

- ★★ Agria 2500 Hydro is a two-wheeled universal tractor with hydrostatic drive. It has a moveable wheel axle for optimum weight dispersion. The steering handle can be turned all the way round so that the machine can operate in both directions. It is equipped with a 13 h. p. Briggs & Stratton motor.
- ★ Nimos DM-Trac 406 is a hydrostatic implement carrier with 4WD. It can be applied with a large number of different implements - mainly for the garden and park sector.

**Hastrac A/S - Stand No. A1-1100**

- ★ Hustler Super Z is a hydrostatic lawnmower with a zero turning radius. It has a 34 h. p. CAT diesel engine and a cutting width of 153 cm. It has rod steering and is available with side or rear cast. The top speed is 24 km/hour.
- ★ Nila Stubfræser, type BSF16F, is a two-wheeled manual steering stump grinder with a 16 h. p., 2-cylinder Briggs & Stratton petrol motor. It can grind stumps down to 20 cm below soil level. The compact construction ensures high accessibility. It can also be equipped with a 100 cm dozer blade.

**Scan-Agro A/S - Stand No. M-9630**

- ★ Wright Sentar Sport 48B is a lawnmower with a zero turning radius. It has a 19 h. p. Kawasaki motor and a cutting width of 120 cm. It has rod steering and is available with rear cast. The operating speed is up to 12 km/hour.

**Stiga - GGP Denmark A/S - Stand No. A1-1104**

- ★ Stiga 110 Combi Pro aggregate is a 110 cm cutting unit for front-mounted rider mowers. It is reinforced so that it can withstand eventual collisions. The cutting unit is carried by swivel wheels and has freely rotating blades on 25 mm diameter axles. The changeover from multi-clip to rear cast does not require tools.
- ★ Stiga Park Diesel 4WD is a front-mounted, angle-steered lawnmower with an 11 h. p. Hatz diesel engine and a new hydrostatic transmission system. The cutting width is 121 cm with multi-clip.
- ★ Stiga Park PRO Svane 4WD is a front-mounted, angle steered lawnmower with a 16 h. p. Honda petrol motor and a new hydrostatic transmission system. It has a cutting width of 110 cm with multi-clip and rear cast. The machine bears the "Swan" mark of environmental approval.

**Stihl - Stand No. A1-1220**

- ★ Stihl BR 500, BR 550 and BR 600 blower units are leaf blowers with 4-mix motor. This is a 4-stroke motor which is lubricated by an oil/petrol mixture.

- ★ Viking MB 2 RT bio-lawnmower now has a new, durable frame construction and is self-propelled.
- ★ Stihl TS 700 stone cutter for cutting paving stones, etc. This machine is equipped with a new type of motor and a new filter system. The cutting depth is 125 mm and it can be installed on a carrier and be equipped with a water tank for the reduction of dust problems.

## Forestry

- ★ **Farma Norden AB - Stand No. H-6106**  
Farma, type CT5 1-9, is a forest truck with a 5.1 m crane. The truck has a total weight of 9.5 tons and has a new design for easier loading and manoeuvring in the forests.
- ★ **Kellfri KB - Stand No. A1-1304**  
Kellfri TK22 wood cleaver has a pressure of 22 tons and can cleave logs of up to 68 cm in length. It is powered by an integrated petrol motor.
- ★★ **Linddana A/S - Stand No. A1-1300**  
Forestry winch for the TP270 wood chipper. The forestry winch is installed on the hopper of the wood chipper. It has an operating radius of 40 m so that it can pull logs towards the wood chipper from considerable distances. The logs are drawn all the way into the machine so that the feed rollers can grip them. The forestry winch is remote controlled so that the operator can walk beside the log.
- ★ TP Wood Chipper, type TP 400, is a tractor-mounted wood chipper. It is powered by the tractor PTO and has a twin-bladed rotor. It is equipped with hydraulic powered traction that has electronic revolution monitoring which disconnects the traction unit if the rotor revolutions fall below the set limit. When the revolution returns to normal, the traction automatically starts. This machine can handle trunks with diameters of up to 40 cm.
- ★ TP Pilot 01 is a revolution monitor for the control of a wood chipper. The unit monitors both the rotor revolutions and the revolutions of the feed traction rollers. It can also be applied to change the wood chip grading. There is a monitor display which shows the various functions.
- ★ TP wood chipper, type 150 PHM, is a lightweight trailer-mounted wood chipper with a diesel engine. The dead weight is less than 750 kg so that it can be drawn by a car without a special trailer licence. This wood chipper has an integrated hydraulic system for powering the feed rollers. The rotor has an electronic monitor which stops operation if there is an overload risk.



- ★ **Lykketronic A/S - Stand No. G-4712**  
Chipper 100 is a monitoring/control unit for the control of wood chippers. It monitors the rotor's revolution rate. If the revolutions fall below a set level, the feed rollers are stopped and an alarm is given. This avoids overload problems and unnecessary wear-and-tear of the wood chipper.

## Contractors' machines

- ★ **Helms TMT-Centret A/S - Stand No. M-9634**  
Hidromek HMK 102B and HMK 102S are a new series of ditch diggers. The 102B has 2WD and the 102S has 4WD which facilitates crab steering. This series has 100 h. p. Perkins motors. The lifting height is from 3360 to 3480 mm in the implement's turning point and the digging depth is from 4350 to 4400 mm.
- ★ **Lykketronic A/S - Stand No. G-4712**  
Lykketronic Winter Control series, type V 100, V 200, S 100 and T 100 are electronic control systems for the regulation of machines for combating slippery roads. These systems can control the dosages of roller spreaders, disc spreaders and salt sprayers in relation to driving speed.
- ★ **Præstbro Maskiner A/S - Stand No. A1-1200**  
Crushing tech DRW is a tractor towed machine for the crushing/grinding of solid concrete, stones, asphalt and similar materials down to a depth of from 100 mm to 300 mm. It is equipped with a powerful crushing roller with 180 spike holders with diamond tips. The degree of crushing is hydraulically regulated with a heavy grid on the rear shield. During operation, it is supported by adjustable drag shoes.
- ★ **Svenningsens Maskinforretning A/S - Stand No. B-2218**  
Bobcat AL440 angle-steered, rubber tyre loader is equipped with an 83 h. p. Kubota diesel engine with turbo. It has a lifting height of 3370 mm, a discharge height of 2635 mm and a tipping capacity in the horizontal position of 4400 kg. In the angle position, the tipping capacity is reduced to 3900 kg. It is equipped with hydrostatic transmission with shuttle change for smooth transition from forward and reverse. The width is 1.95 m and the weight is 5700 kg.
- ★ Bobcat 444 is a 12.5 ton mini-excavator on rubber tracks. It is also available with steel tracks. The mini-excavator has a 94 h. p. Deutz motor with turbo, an excavation depth of 4330 mm and a reach of 7740 mm. The lifting height is 6.3 m. The excavator arm is jointed and can swivel (offset boom function). The machine has a dozer blade that corresponds to the width of the machine which is 2.5 m.