Valtra Team

Valtra Customer Magazine • 1/2008

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Valtra owners buy into a complete support package Page 4 More profit from local produce Page 10 World Rally Champion Marcus Grönholm – from rally cars back to tractors Page 12



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Is it reliable and good value for money?

We ask that question about so many items in our lives: car, TV, computer, electric kettle, combine harvester, tractor – the list is as endless as the question is important.

On the following pages user stories from here in the UK, Ireland and the rest of Europe about both established Valtra users and new owners highlight some important facts. When asked, 'why use Valtra?' the answer is often surprisingly straightforward.

Many simply say, 'because Valtra have proved reliable on our farm.' And others tell us, 'because my neighbours tell me Valtra are reliable.' What better testimonials can we ask for?

Also high on users' priority list is support. Customers accept that anything mechanical needs maintenance to keep it in first class order – and even the best maintained machine can be prone to the odd hiccup. Valtra's customer support philosophy is rooted in over 175 years of experience with machines working in some of the most difficult terrains world wide. At our HQ at Stoneleigh we run courses for all types and grades of support staff to ensure you, our customer, have the back up you need – when you need it.

But what do you need your tractor for? Your requirements may not be identical to your neighbours. At Valtra we've devised a production system that allows us to build a tractor specifically for your farm – we'll even put the farm name on the cab – but without the high costs associated with bespoke machinery manufacturing. Simply take the time to talk to your Valtra dealer, specify what you want in the way of engine power, transmission and hydraulic capability and we'll build it for you. No wasted cash on unwanted features that provide you with absolutely no benefits.

Valtra were the first tractor company to approve the use of biodiesel, long before it became the latest thing in the news. We also introduced the world to EcoPower engines – engines that offer fuel savings of up to 10 %. And remember our SisuDiesel engines already have a reputation for frugal fuel consumption and long life.

At a time when fuel prices are rising, when timeliness is of increasing importance to capture best yields at best prices, when operators are being asked to work longer hours, this is without doubt the time to contact your Valtra dealer or a member of the Valtra team to find out the finer details of how a Valtra tractor can help to increase your productivity.

Mark Broom



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Publisher Valtra Inc., Finland, www.valtra.com

Editor in chief Hannele Kinnunen, Valtra Inc. hannele.kinnunen@valtra.com

Edition Tommi Pitenius, Valtra Inc.

Editorial

Truls Aasterud, Lantmännen Maskin AS truls.aasterud@lantmannen.com Gundel Boholm, Lantmännen Maskin AS gundel.boholm@lantmannen.com Sylvain Mislanghe, Agco SA sylvainmislanghe@fr.agcocorp.com Lucy Mitchell, AGCO Ltd. lucymitchell@uk.agcocorp.com Kim Pedersen, LMB Danmark A/S kim.pedersen@lantmannen.com Cinzia Peghin, Agco Italia SPA cinzia Peghin, Agco Italia SPA cinziapeghin@par.agcocorp.com Astrid Zollikofer, Valtra Vertriebs GmbH astrid.zollikofer@valtra.com Co-ordination Medita Communication Oy Layout Juha Pulikkonen Print Acta Print Oy Photos Valtra archive if not otherwise mentioned

Valtra owners buy into a complete support package

The Valtra tractors are acknowledged as excellent tools for farmers, contractors, foresters, civil engineers, amenity and other users with operators reporting they offer reliability from day one. However, no matter how reliable, any machine will sooner or later require servicing and ultimately repair; it's the way of anything mechanical. Despite this inevitability, few tractor operators seriously investigate the level of after sales back-up available through their local dealer.

So what is involved in becoming a Valtra dealer? What are the commitments a dealer has to make to Valtra and, more importantly, to the customer?

Well of course workshop staff should have a good level of practical experience and vounger members of the team at least should have recognisable qualifications. The business as a whole should be amenable to staff training and this is where Valtra's Richard Haines and the UK Valtra Product Support team come into their own. When appointed a new Valtra dealer is expected to send all workshop staff on a two day training course designed to bring everyone up to a uniform level of product and procedure knowledge. These courses, like most others, are held at AGCO's European Headquarters at Stoneleigh Park where modern training workshops and lecture rooms are available with the courses a good mixture of theory and practice. Alongside training, an evaluation is made of

the dealer's facilities – Valtra's standards are high – and of course they must have acceptable workshop facilities and a comprehensive set of basic tools and equipment otherwise they would not been appointed. However, the more advanced the facilities the greater the services available to customers which, in turn, makes it easier for sales staff to sell new machines. A situation that benefits customers, dealer and Valtra alike.

With basic training over dealer staff move on to more advanced levels. Valtra arrange their courses in modules, one for each of the main tractor components: engine, transmission, hydraulics and electronics and diagnostics. These courses are set at levels that meet participant's individual requirements and are not limited to staff from a particular dealer,



Training courses use tractors and demonstration components, engines, transmissions, hydraulic housings to demonstrate procedures.



nor indeed, from a particular area and may be lead by any of the Service Team. As Richard Haines explains,

– A tractor that has completed several thousands of hours on a dairy farm may be exhibiting different symptoms of wear and tear to a machine that has clocked up similar hours on an arable farm. By mixing dealer staff and instructors from different areas, not only do they learn the theory and practice from Valtra but we all learn from the experiences of others.

And there is plenty of time to learn as most courses run for two or three days.

But it's not simply a case of attending a training course and that's it. With four Area Service Managers covering the UK and Ireland training is ongoing as the field staff making dealer visits, checking on staff progress and

Bill Flynn takes his group through the details of N Series hydraulic circuitry – Ian Harrison of R C Setchfields, Simon Fletcher of Fletcher Farm Services, Alastair Lind of TRP Scotland and George Richardson and Nick Powell of Read Agricultural Services. helping out with the occasional knotty problem – which in itself is used as part of training.

 We don't just turn up and fix these kinds of problems – dealer staff are involved so that if the problem re-occurs they know what to do, explains Richard.

Increasingly customers are looking beyond price and specification when choosing a new machine. Service support is equally important not only as backup for the current owner, it also has an influence on the tradein value – good support equals a better price. The Valtra team strive to ensure our customers get all the support they need – and deserve, even if it's not until the tractor has clocked up several thousand hours.

But Valtra's focus is not all about dealer support from the workshop. We accept that,

in this day and age many operators are highly skilled, often with mechanical qualifications themselves. As a result we have developed a series of comprehensive Service Kits, making on-farm maintenance easier. Simply tell the dealer the Valtra model and he will supply a boxed set of parts required plus protective gloves and a bag for the disposal of the used items. We also supply their own branded oils, not only for Valtra tractors but for many other machines as well. Often these contain additives unique to the Valtra oil range to improve performance further.

With tractors staying on farms longer, clocking up increasingly higher hours it is important to buy into the whole Valtra experience which goes well beyond the tractor.

Roger Thomas







Driver comfort is directly related to work productivity and safety. A well-designed and equipped cab allows the driver to work faster, more precisely and for longer periods.

COMFORT comes in all varieties

Ergonomics, comfort and safety are typical characteristics of Valtra tractors. Comfort is itself a complex word; when it comes to tractor work it certainly does not mean lying on the sofa. Instead it refers to the kinds of features that help the driver focus on his or her work, use the tractor productively, and to remain fresh throughout the workday. In this sense we could adopt the term "active comfort", just as the car industry speaks of active and passive safety.

Comfort begins with an easy climb into the cab. The seat makes it easy to find a comfortable driving position. The best steering wheel on the market sits in your hands. Valtra's design philosophy is to make driving as easy as possible and for all controls to operate logically. Visibility is excellent, and the slanting nose of the tractor also offers the driver an unobstructed view of the front wheels. The stylish interior of the cab exemplifies practical Nordic design.

The driving properties of Valtra tractors are almost comparable to those of passenger cars. The turn signal disengages automatically after the turn. The noise level is low, and the engine noise of the SisuDiesel Common Rail engines is pleasant. HiTech and Advance models also offer the benefit of low idle speed whenever the handbrake is engaged.

Suspension options

The main flexible elements of tractors have traditionally been their tyres and the seat, but now driving comfort can be enhanced through different suspension solutions. N Series models from the N101 upwards are available with hydro pneumatic front axle suspension combined with cab suspension utilising springs and shock absorbers. The Aires front axle suspension on T Series models is entirely pneumatic and comes with the same cab suspension as on the N Series.

Technology is advancing rapidly. Valtra now offers semi-active suspension that further enhances driving comfort in all conditions. Passive suspension involves springs and shock absorbers that are adjusted according to the anticipated conditions. Semi-active suspension utilises sensors to make adjustments constantly. Active suspension utilises an external power source to make adjustments to the suspension based on its movement. This technology is still being developed and is currently too expensive for production tractors, whereas semi-



AutoComfort semi-active cab suspension is a unique to Valtra tractors and was awarded at the Agritechnica exhibition with the silver Innovation Award.



Electrically adjustable and heated side mirrors improve visibility and safety.



The air-conditioned Valtra Evolution driver's seat also features lateral suspension and adjustable lower back support, and it also adjusts automatically to the weight of the driver.

active suspension can already be offered as a regular option.

In order to improve driving comfort, the suspension settings should be adjusted to suit different driving conditions. The "soft" setting is ideal when driving on the road, while the "hard" setting is more suitable off-road, as the softer suspension setting would cause excess cab movement.

Valtra was awarded the silver medal at the Agritechnica exhibition for its AutoComfort semi-active cab suspension, which automatically adjusts to different driving conditions. The system consists of electronically controlled shock absorbers, a position sensor and a control unit that is connected to the tractor via a CAN bus. The system automatically adjusts the stiffness of the shock absorption by means of a proportional valve, which adjusts the flow past the shock absorber piston.

Valtra and ZF Sachs have developed continuous damping control (CDC), which can adjust the stiffness of the shock absorption every two milliseconds according to movement data from the position sensor and information about the driving situation from the CAN bus. For example, the CAN bus provides information about the position of the shuttle and breaking, allowing the system to react against bouncing.

When the semi-active cab suspension is combined with the Aires front axle suspension, the sensors in the front axle provide advance information to the rear tyres about bumps, which significantly improves how the system can react to changes in the terrain. The suspension elements include air springs that maintain a steady height regardless of the load. Semi-active suspension is available as an option on Valtra T Series Advance and HiTech models.

Seating comfort

The right driver's seat can help enhance the tractor's suspension. N and T Series models are now available with the Valtra Evolution driver's seat, which offers many features that improve comfort. The seat adjusts automatically to the driver's weight, ensuring that the seat always operates at its peak performance regardless of who takes the wheel. The height of the wheel can be adjusted with a lever, and the level of shock absorption can also be adjusted. The seat also features lateral suspension that makes it especially easy on the back. The lateral suspension can be locked when necessary, as can the seat suspension in general.

The Evolution driver's seat is upholstered in breathable material that covers active charcoal material. Beneath these are channels that direct dry air to remove sweat and cool the seat. Naturally, the seat can also be heated in wintertime, ensuring the correct surface temperature regardless of the conditions. The cooling function also eliminates drafts. This seat is a pleasure to sit in.

The seat offers plenty of adjustments. To begin with the Evolution seat is wider than standard seats. The length of the seat cushion can be adjusted by 60 mm and the seatback angle by 3 to 11 degrees. The amount and height of the lower-back support can also be optimised. The left-side armrest is always adjustable, while the right-side armrest can either be adjustable or the same as in HiTech and Advance models.

The controls on the seat are positioned ergonomically so that they are easy to distinguish and use. The Valtra Evolution seat offers the highest levels of seating comfort.

Comfort à la Carte

The basic design of Valtra tractors emphasises comfort and safety. In addition, a wide range of optional equipment is available to optimise each tractor for its intended use.

Electrically adjustable and heated side mirrors are available that are larger than standard mirrors and improve visibility to the rear. Automatic air-conditioning maintains the ideal temperature within the cab at all times. Xenon working lights are available for the rear. The Infolight option improves lighting to the sides of the tractor.

The EcoSpeed option reduces noise and fuel consumption, allowing speeds of 40 km/h at just 1 800 rpm. Valtra's N111e and T151e EcoPower models are also ideal for reducing stress.

See what Valtra's à la Carte selection has to offer and design your own tractor to be as comfortable as possible!

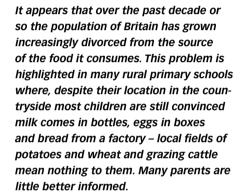
Hannu Niskanen



Jack Roebuck admires the view from the seat.

Jack's **Design** Success

The Roebuck Family and Valtra tractor in the shadow of Tower Bridge.



As part of a nationwide program to help reverse this depressing situation Farmers Weekly magazine has been running the Kids Connect Campaign. This campaign is part of the Farming to Food event held in London at the end of September and the event's theme is the education of children in the source of their food and other important countryside matters. An important part of the campaign was "Design a Tractor" a competition sponsored by Valtra in the UK and launched in July at the Royal Show. Children were invited to design One crazy chicken.



tractor graphics that best depicted the variety of life and activity found on British farms. Over 150 entries were received and 12-year-old Jack Roebucks's was judged the best.

Jack's design was transferred to an N Series machine at AGCO's Stoneleigh Park training facility and then shipped to Potters Field, Central London in the shadow of Tower Bridge. It was unveiled on 27th September by **Sir Don Curry** and Year of Food and Farming director **Tony Cooke** in front of a delighted Jack and his family. Also on Potter's Field was a wide ranging display of agricultural produce with chefs on hand to explain how they were cooked; there was plenty of tasting for the hordes of visiting school children, teachers and parents. Unfortunately, due to F&M disease livestock was limited to fowls including day-old chicks and some vocal geese.

Valtra will use the N Series tractor at various events over the coming year and is available to dealers for shows and open evenings and other publicity functions.

Roger Thomas

Careful final touches.







Children at Royal Show get to grips with designing the graphics.

Wood heating catches on rapidly in Europe

Energy from wood creates savings for farmers and additional income for contractors

The price of a 159-litre barrel of crude oil topped 100 dollars for the first time at the start of this year. The price of a litre of diesel fuel is around one euro depending on country and taxation. As the world's oil resources are no longer growing, it seems that the price of oil will continue to rise in the future. The price of many other forms of energy will follow behind.

 There is a demand for wood energy throughout Europe right now, says Petri Piipari, Managing Director of Säätötuli Oy, a Finnish company that manufactures bioheating systems.

Säätötuli has been in the market for 23 years and manufactures around 400 heating units a year. Most of these go to farms, but Säätötuli's products also heat apartment buildings, fish farms, greenhouses, industrial plants and regular houses. In cold Finland, bioheating systems can be found on approximately one out of every three farms. As the cost of energy has increased, so has demand for the company's products also outside of Scandinavia, and today Säätötuli exports to 11 countries.



Risto Piipari has headed the bioheating systems company Säätötuli for the past 15 years, and he has even more experience in harvesting energy wood and wood heating.

 The average size of our burners these days is 150 to 250 kilowatts, and a single system can heat entire house, workshop, barn and grain dryer, says Petri's father **Risto Piipari**.

Säätötuli's bioheating systems can also burn a variety of fuels, including wood chips, wood pellets, peat, grains and straw. They can even be used to dispose of dead farm animals. An oil burner and electric resistor can also be used as backup systems for the boiler.

From woods into ash with the help of a tractor

Wood chips are the most common woodbased biofuel in the Nordic countries, whereas in Central Europe wood pellets are slightly more popular. Wood pellets are manufactured by compressing wood without any binding agents, and they are around four-times denser than wood chips.

– Wood pellets are the ideal biofuel. Wood chips have a lower thermal value and are susceptible to moisture, but on the other hand they are considerably cheaper and easier to produce by farmers and contractors themselves using waste wood, Risto Piipari explains. The ideal moisture content of wood chips is between 20 and 25 percent, and the maximum moisture content is 40 percent. Damp wood chips produces significantly less energy and can get stuck to the feeding equipment in cold temperatures. Hay and grains are slightly more demanding fuels in terms of automatically feeding them into the burner and removing the ash.

Bioheating systems can be fully automated and monitored by mobile phone. The automated systems can control the fuel feed and ash removal and prevent the fire from spreading from the boiler to the feeder.

 Of course, bioenergy heating is never as carefree as electric heating, for example, Petri Piipari admits.

Risto Piipari truly believes in utilising energy from wood. He has just purchased a Valtra N121 tractor with full forest specifications and an energy wood harvester. He uses his new tractor to collect energy wood from the forest, transport it, chip it and load it in the storage area. He also plans to use the tractor to spread the ash in the forest as fertiliser. The amount of ash created from burning wood chips is nevertheless just 0.3 percent the amount of wood used.

Tommi Pitenius

Wood energy is an excellent alternative for heating farms, which usually have an abundance of waste wood that can be utilised as fuel. Transforming waste wood into wood chips is easy, the resulting fuel is inexpensive, and farmers can make more fuel whenever they need it. Wood heating is also environmentally friendly, as growing trees binds as much carbon dioxide as is released when it is burnt.





Rudolf Karg and his family prepare sausages and other meat products from the pigs of the family farm.

A meat expert on his own farm and on the road

Rudolf Karg is a professional butcher who is now enjoying retirement in Baar-Ebenhausen in the district of Pfaffenhofen 12 kilometres to the south of Ingolstadt in Germany. He spends his time farming 30 hectares and raising 150 pigs with his wife **Paula**, his three sons and his daughter **Silvia**.

Ever since Rudolf and Paula were married in 1965, he has earned extra income by slaughtering animals for his own use. In 1989 he had to stop cultivating potatoes due to illness, so he had to find another source of revenue on the farm.

When one of his sons became a professional butcher, Rudolf decided to try selling meat directly. In 1990 the Karg family borrowed a van, equipped it accordingly, and drove it to the local weekly market. By five o'clock in the afternoon they had sold everything, with the exception of one last piece of smoked meat. This they donated to the organiser of the market, who remains a loyal customer of the Karg family to this day. After their initial success, the Karg family immediately began building their own van.

Although Rudolf Karg bequeathed the family farm to his son and namesake **Rudolf** in 2005, he still attends local markets within a 100-kilometre radius selling the farm's own products. He usually takes with his youngest

son **Richard**. Between markets he drives around the region delivering meat to customers at home.

In 1991 a small sales department was built on the farm. These days six of the farm's pigs weighing between 140 and 150 kilos are slaughtered each week in Ingolstadt. The carcasses are then returned to the farm, where they are processed into sausages that are sold directly. In addition, Rudolf Karg buys cattle from a familiar breeder.

In 2008 the family plans to build a bigger sales department and a new sausage kitchen on the farm. The farm itself will not be expanded any more than the family can handle by itself without having to hire additional labour.

The oldest son in the family **Max** is a mechanic by trade and works for a car manufacturer. However, he still finds time to help his brothers take care of the farm. The family also relies on a Valtra A95 that was registered in 2005 and has already been driven for over 1 000 hours.

Josef Wiedemann

LOCAL FOOD FIN

Producers ofte higher margins

What is "local produce"? For some it refers to food sourced from one's own village, district or country. For others it refers to food that they ate as a child at home, for example at Christmas. From the perspective of farmers, local food is sold to consumers as directly as possible and with as few middlemen as possible – preferably directly from the farm.

A great advantage of local food is that you know exactly how and where the food was produced. It is fresher than food transported over

Cheese dairy in Fidenza

The brothers Luigi, Giorgio and Nadio Bertinelli have a farm in the small village of Fidenza right in the heart of Italy's famous Parmigiano-Reggiano cheese region. Parmigiano-Reggiano parmesan cheese is inseparable from the region in which it is made. The milk used to produce it and the cheese itself is made in Parma, Reggio Emilia and Modena, as well as in the area between the Reno River in Bologna and the Po River in Mantova.

The Bertinelli brothers cultivate wheat and hay on their 85-hectare farm. They also keep 80 cows, 50 of which produce milk. The Bertinelli farm has always supplied its milk to parmesan

The Bertinelli brothers use milk from their own dairy farm to produce the world famous Parmigiano-Reggiano cheese.



NDS MORE FANS

n benefit from and extra work

greater distances and includes fewer preservatives. Local food tastes better because it is fresh. Transportation distances are shorter, so the products do not have to be packaged so heavily. Producers often receive more money for their work when selling their produce directly than when selling to the food processing industry and retail chains. On the other hand, marketing and selling local food can involve more work, and local food farmers have to make investments themselves in food processing and storage.



Christopher (left) and Simon (right) with Aberdeen Angus stores destined for their Farm Shop or Waitrose Supermarkets.

Roadside farm shop

The Mead family has been farming at Wilstone for the past 300 years or so, and today the 750-acre holding is run by cousins **Simon** and **Christopher Mead** trading as P E Mead and Sons. Retail sales started back in the 1960s – a table with produce and an honesty box.

 It was OK initially, but unfortunately we developed three customer types: those that paid, those that didn't, and those that helped themselves and took the cash as well! recalls Christopher wryly.

The system did prove, however, that there was potential, and the family moved on to a manned stall and then a shop alongside an old barn adjacent to the road.

 There isn't a major population centre nearby, but there are several towns within commuting distance: Aylesbury, Tring and Hemel Hempstead, points out Simon.

 It's important to create a one-stop shop
 customers won't come here for cabbages and get carrots elsewhere.

In 2003 the shop was expanded with the conversion of a Grade II listed barn. Today the shop sells Aberdeen Angus meat from animals finished on the farm. The progeny of the farm's 60 ewes is also sold through the shop.

 Animals are slaughtered, butchered and the meat packed off the farm. Pork, pork products and other meats are delivered by other local suppliers.

The range of products sold by the Mead's farm shop has developed over time.

 For example, we started supplying logs from timber cut on the farm. The next thing we knew demand was expanding considerably
 beyond what the farm could sustain.

As a result the cousins started buying timber that is logged and sold by the load or in nets. The sale of logs led to the supply of other solid fuels, bottled gas and home produced charcoal. In the shop sales of locally produced apple juice has led to the supplying of a juicing and pasteurising service for customers.

 We set dates for customers to bring in their own fruit and then juice, pasteurise and bottle it for them.

The shop's growing popularity is undoubtedly helped by a friendly staff working shifts seven days a week – Saturday and Sunday are the busy days, and expansion is on the cards.

 We already sell a range of animal feeds
 there are quite a number of small holders and horse owners in the area, and this is an area we can improve, at the same time making room for expansion in the main barn. As the public increasingly demands to know where their food is sourced, so the farming community is responding with increasing numbers of potential suppliers looking for outlets, explains Simon.

While it is not an easy option opening up a shop to sell local produce, it is one that obviously gives satisfaction and, in Simon and Christopher's case, further potential for added profit.

Roger Thomas

producers. Around five years ago, faced with declining incomes, the brothers decided to introduce their own production of Parmigiano-Reggiano cheese.

They built a small cheese dairy in which Luigi, Giorgio and Nadio process between 1 000 and 1 200 litres of milk each day. This is enough for two cheeses weighing approximately 40 kilos each. The brothers say that, although the amount of work has increased, this way their farm can continue to operate and survive the crisis.

Four years ago the brothers also invested in a new Valtra 6750 EcoPower tractor, which they purchased from the Valtra dealer in Parma, Ditta Bettati Andrea. The tractor has already been driven for 1500 hours and

Franco Scorsi



is used primarily for making hay and transporting. According to the Bertinelli brothers, the Valtra 6750 EcoPower is easy to use, fun to drive and fast, and it is ideal for transporting. Thanks to the low-rev engine, fuel consumption is low, as a result of which the operating expenses of the farm have decreased.



World Rally Champion Marcus Grönholm From rally cars back to tractors

The smart new Strand Shopping Centre is idyllically located less than a hundred metres from the sea in the small harbour town of Inkoo on the southern coast of Finland. The wooden complex is in harmony with the town's other wooden buildings and its medieval stone church. A familiar looking person strides towards me hurriedly down the central arcade of the shopping centre.

 I'm a real gofer around here these days. I get to run around and do all kinds of little jobs, Marcus Grönholm grins modestly.

When we get to talking it is clear that the two-time World Rally Champion is not just a helper, but he certainly does take care of a lot of things.

 When I retired from racing I thought that my life would calm down. It's amazing how full my calendar still seems. Running the shopping centre together with Tessa takes up most of my time. Then there is the family farm, PR jobs for Ford and several interviews like this each week, Grönholm says.

Marcus Grönholm began racing motocross bikes in 1981, the same year that his father Ulf died while practising rallying. In 1987 Marcus switched to rally cars after a knee injury ended his motocross aspirations.

In the same year he also began earning a living as a farmer.

 At the time we had around 65 hectares of fields.
 In the beginning rallying was just a hobby. However, as it gradually began taking up more and more time,
 I found I could no longer focus

properly on both farming and racing. I

remember one autumn working all day harvesting the crops, spending all night attending to the dryer, and then in the early hours of the morning going out to practice for the Rally of the Thousand Lakes in Jyväskylä. Not surprisingly I didn't do well that year!

Towards the end of the 1990s Marcus and **Teresa** decided that Marcus should focus entirely on rallying for the next two years. If he was not successful, he could leave rallying and focus once more on farming. In previ-

ous years the farm's forest had been mercilessly thinned to fund his racing.

It was only at the end of that two-year period that
 I began to find success and Peugeot recruited me as a factory driver. At the same time I learned to be more patient. Before I always had a burning desire to win every

single special stage – often ending up in a ditch upside down!

Grönholm's rallying career continued until 2007 when he announced his retirement. He

I found
 I could no longer
 focus properly on
 both farming and
 racing. >>

Two-time World Rally Champion Marcus Grönholm retired from racing and returned to his family farm. The fields are still rented out to his cousin, so most of his tractor driving involves transporting goods with a trailer and road maintenance.





The Strand Shopping Centre is wife Teresa Grönholm's project. Tessa owns the 2000-square-metre complex and runs the gym, restaurant, a clothing shop and a gift boutique. In addition, the complex houses a wine and liquor store, a hairdressing saloon and other shops.

told the press that one of the reasons was so he could spend more time with his family.

– I had rented out the fields to my cousin while I was racing. Of course I still know what crops are growing there, and sometimes I help out with the dryer, for example. Most of my tractor driving involves transporting goods with a trailer and maintaining local roads, Marcus says.

Marcus does not believe that he will become a fulltime farmer anymore:

– We opened the shopping centre a year ago, and it takes up all our time. In addition I get the feeling that I have been left behind while racing, since farming has advanced so fast in the past few years. If my son Nicklas wants to farm this land someday, the fields will be in good condition.

Valtra sponsored Grönholm from 1993 onwards – long before he began to enjoy success. Many other Valtra farmers have also been top rally drivers, including **Tommi Mäkinen**, Juha Kankkunen, Ari Vatanen and Carlos Sainz. – Perhaps farmers have better opportunities to practice the sport on their own land or on private roads. Farmers are also used to fooling around with machinery. I remember in between rallies with Tommi Mäkinen we used to always talk about harvests, tractors and other such things.

Grönholm has not entirely left the rally scene. He still drives for Ford at exhibition events and takes corporate guests for rides in a WRC car. He has also promised to drive tests if needed. The decline of the World Rally Championship still saddens him.

– Back in 2002 there were still seven or eight guys who had every chance to win the championship. Today there are much fewer top drivers and teams. The costs for teams have got out of hand. Simplifying the cars would be one solution, but that's no fun for the spectators or drivers, admits Grönholm.

Tommi Pitenius



Marcus "Bosse" Grönholm

Born	5 February 1968	
Family	Wife Teresa and children Jessica, Johanna and Nicklas	
Educati	on Västankvarn Agricultural Institute	
Rally career	World Rally Champion 2000 and 2002, first Finnish championship in 1994	
Farm	Skallas family farm in Rådkila, Inkoo with 106 hectares of fields and roughly the same amount of forest	
Production Wheat, barley and rape		

Tractor Valtra N101 HiTech

26684

hours without a problem

Bengt Johansson is a truly loyal customer who relies entirely on Valtra tractors on his farm in Horred, Sweden. Bengt's Valmet 615M recently won an operatinghour competition organised by Swedish agricultural magazine ATL.

26684

The 1986-model Valmet 615M has an impressive 26,684 hours on the clock. Even more impressively, the tractor is still going strong.

 For me Valtra is an obvious choice. These tractors can withstand a lot of use, they adapt to a variety of conditions, and quite simply they don't go wrong, Bengt explains.

Bengt Johansson runs the Skogsåkra farm in Horred, Sweden, where he also has a workshop and sawmill. The farm has 130 suckler cows and 150 calves. In addition Bengt cultivates 280 hectares of fields and pastures that are divided into 180 parts. This calls for a lot of transporting.

To carry out all his farming and sawmill operations, Bengt uses three tractors – all of them Valtras. In addition to the Valmet 615M that he uses in the sawmill, he has an articulated XM130 and an environmentally friendly Ecopower 8350.

- Since I started this work I have owned a total of eight Valtra tractors. I am loyal to

the brand, as all these tractors have performed unbelievably well with extremely few faults, especially considering the amount of operating hours I have put on them, Bengt says.

The Valmet 615M and XM130 were purchased from the Valtra Center in Kungsbacka, while the 8350 came from Lantmännen Maskin in Halland. Bengt has enjoyed friendly relations with both the Valtra Centre and Lantmännen Maskin. He also has a forest loader that is designed especially for Valtra tractors and that he bought from Lantmännen Maskin.

 I haven't really had to contact the dealer after taking delivery of the tractors, since I haven't had any major problems with them.
 But the service has always been good whenever I have needed something.

Tough, durable and versatile

When Bengt bought his Valmet 615M in 2004, it already had 24,000 hours on the clock. Bengt did not consider this a problem, since the tractor was in very good condition. Since then the tractor has been driven another 2684 hours and still performs excellently in the sawmill. Bengt uses the tractor most of all with a loader for doing forest work. It is ideal for lifting logs.

The tractor runs great and is ideally suited for driving and working in the forest, Bengt admits.

The Valmet 615M is not just a forest tractor. Bengt also uses it when for transporting duties, for example when making hay. The tractor is perfect for the task, as it is extremely versatile, it has a small turning circle, and it runs smoothly. The loader is a big help on uneven surfaces, as it can help right the tractor if it begins to tip over.

Only Valtra

 If I bought a new tractor now, it would have to be a Valtra. These tractors are durable, versatile and easy to drive, Bengt describes.

Similar stories of the durability of Valtras can be found around the world. In Germany, **Xaver Bayerlein's** Valmet 6400 has 19,500 hours on the clock from forest work. In Finland, **Ilkka Korhola's** Valmet 8400 has 27,500 hours on the clock, and the transmission and engine have never had to be opened.

Sandra Persson



Food safety begins in the fields

Primary producers adjust to latest regulations

The new food hygiene legislation that came into force in Europe two years ago emphasises producer responsibility for ensuring food safety. Primary production was also added to the supplier chain to allow food safety risks to be better managed all the way from the field to the table.

The concept is still new for primary producers and regulatory agencies alike, says Maija
 Hatakka, Director, Food Safety, of the Finnish
 Food Safety Authority Evira.

In Finland alone the new EU legislation created 60,000 new control targets, although a quarter of these were previously controlled in terms of milk hygiene. Balancing inspections throughout the country is a challenge for officials, while at the same time autocontrol and producer responsibility are being emphasised throughout the entire production chain beginning with primary production.

Autocontrol for primary producers

Primary production consists of the cultivation and harvesting of crops, vegetables, root vegetables, fruit, berries and mushrooms for consumption. It also includes maintaining and milking production animals, collecting honey, catching and cultivating fish products, producing eggs, hunting, and gathering wild berries and plants.

As of March 2007 primary producers have had to register for local food control units and provide a written description of their autocontrol system.

 Although gathering wild mushrooms and berries does not require registering or a written description of autocontrol, compliance with hygienic working methods is important here too. In order to trace the origins of the products, buyers of mushrooms and berries have to keep books on their suppliers, Hatakka mentions.

Farmers have to describe in writing the key hygiene and safety aspects of their operations. These include how the farm facilities and animals are kept clean, how the quality of feed and water is monitored, how pests are controlled, how waste is managed, and how feed supplements, veterinary medicines, pesticides, fertilisers and hazardous chemicals are used and stored.

The level of autocontrol varies considerably between different production sectors, and many producer organisations have drawn up their own specific models. In addition, primary producers have to keep books on certain key aspects to allow traceability. For example, documentation is required about the quality of water and animal feed used in production, about samples taken of products and animals, and about animals that have introduced to the farm or removed.

Healthy animals – safe foods

Animal health plays an essential role in food safety. The goal of the EU's Animal Health Strategy for 2007–2013 is to create the best possible conditions for monitoring animal diseases within Europe. The principle of the strategy is "prevention is better than cure".

Zoonoses, infectious diseases that can be transmitted between animals and humans, pose a risk to food safety, especially those that transmit diseases from animals to humans through foods. The most common causes of food poisoning include salmonella, campylobacter, listeria and yersinia.

Risk factors when handling plants

The water used in primary production is a key factor in terms of food safety.

– It is significant that attention is now being paid to the quality of water used in primary production. Several widespread food poisoning epidemics caused by the norovirus have been reported in the Nordic countries in recent years, and research has proven that the primary cause involved imported frozen raspberries. The most likely cause was the quality of the water used in primary production,Hatakka explains.

Yersinia pseudotuberculosis, which thrives in low temperatures, has also caused widespread epidemics in Finland in recent years. The cause of several of these epidemics was found to be domestic carrots that had been stored too long.

Controlling salmonella

Salmonella, which is already strictly controlled in the Nordic countries, is now being taken more seriously elsewhere in Europe following an EU survey that revealed high prevalence of salmonella in egg-laying chickens. In Scandinavia the situation concerning salmonella in production animals and their meat and eggs is good compared to other countries. This is the result of long-term prevention work. In many other countries similar prevention work in primary production is only just beginning.

 Primary producers themselves also have to look after their health. A person carrying salmonella can spread the disease and cause food poisoning, Hatakka warns.

Tiinu Wuolio





Improving how **tractors** and **implements** work together

Grassland farming represents a big market for farm machinery, with over 100,000 machines sold globally each year. The great majority of these are tractor-powered implements. According to **Thomas Reiter**, head of product management at Pöttinger, these implements also offer the greatest potential for improving their efficiency, economy and ecology. Pöttinger is one of the world's leading brands for grass harvesting implements. Thomas Reiter is in charge of future product strategies for Pöttinger's entire product range. Reiter believes that there is great potential for improving how implements and tractors work together. In fact, the job of truly integrating tractors and implements has only just begun.

- In the near future we will see clever solutions and a number of innovations in terms of

integration. The turning front linkage offered by Valtra and LH Lift is a good example of this, Reiter says, adding that the innovation cycle for tractors is much faster than in the self-propelled sector due to the relatively large manufacturing volumes of tractors.

Tractors still number one on grassland

In recent years the market for grassland machinery in terms of large-scale farming and

contracting has been split between increasingly large self-propelled forage harvesters and mowers and growing loader wagons and mower combinations.

 There is a lot of debate regarding the pluses and minuses of the different harvesting systems, Reiter says.

 Most grassland is mowed and harvested with tractors, and I do not expect that tractorpowered grassland implements will lose their leading market position.

Farmers worldwide are looking for better efficiency and more economical solutions for their business. An important issue for the farming economy in general is how to maximise the use of tractors on farms. The most expensive self-propelled machines are only for specialised jobs and narrow segments, as a result of which the economy and flexibility of these units is limited.

 By concentrating on manufacturing tractor-powered implements, Pöttinger is in step with the prevailing market trend. We develop their features to support the most effective way to use tractors, says Thomas Reiter describing the Pöttinger philosophy.

Ideal tractor for grassland

What makes the ideal tractor for grassland?

 A low weight, a high degree of manoeuvrability, lots of PTO and hydraulic power, and versatility in terms of mounting and controlling many different implements and their combinations, lists Thomas Reiter.

 A high axle weight is especially problematic, because it increases soil compaction and leaves wheel tracks on wet soil, causing big problems for the next cut.

Reiter also points out that since a lot of weight is seldom needed for harvesting grass, it is better to have a lightweight tractor and use ballast if needed. For this reason, light tractors offeirng higher power output through the PTO and working hydraulics are very beneficial, allowing maximum work output with minimum soil compaction.

Thomas Reiter forecasts that in the future implement combinations will become more popular because they help farmers and contractors achieve more flexibility and higher work output with less passes, working time and fuel. To respond to this trend, tractors need to be versatile, meaning high capacity rear and front linkages with PTO and connecting options for implement hydraulics and control electronics.

 Due to the additional weight of the implements, a light basic weight and even weight distribution are important. A proper weight balance between the front and rear should be achieved with the implement combination mounted, reminds Thomas Reiter.

Working on grassland is very sensitive work. In particular the first year crop has to be harvested especially carefully to avoid damaging young grass.

 In addition to the low weight, a smooth shifting and shuttling transmission combined with four-wheel-drive help avoid wheel spin in stops and starts, says Reiter.

In the future deeper integration between implements and tractors will come more popular and provide greater added value. According to Reiter, already now it is very important to have ISOBUS facilities in tractors and implements to test and gain experiences for future development. Pöttinger has already sold more than 2500 ISOBUS-equipped implements.

Every step counts

The ultimate performance of grass harvesting machinery depends on how well the entire fleet can perform in the particular conditions, as well as on how well the individual links of the working chain are balanced.

– A high loading capacity or high mowing speed does not help much if the headland turns are clumsy and time consuming. High transport speeds and power are also essential features, but to maintain the high speed throughout the whole transport distance, sophisticated suspension systems are also needed for the tractor chassis, cab and seat. In loader wagon harvesting every step counts and also pays back when they perform well, says Reiter.

Co-operation in testing and development

Pöttinger and Valtra have co-operated in product and technology testing for years. Most of these tests have been performed in Finland, including ISOBUS compatibility and Pöttinger loader wagon and extra-dry wilting technol-

Alois Pöttinger GmbH

- Austrian family-owned company
- Manufactures 22,000 implements
 each year
- Annual turnover: EUR 200 million
- Exports to 55 countries
- Key product: self-loading wagon for grass silage (global market leader)
- Other products: a range of tractorpowered grassland harvesting implements, as well as soil cultivation and drilling implements

ogy testing, as well as comparisons of loader wagon and round baler and self-propelled forage harvester technologies.

Pöttinger's testing department has two Valtra tractors at its disposal. Product Manager **Stephan Ackermann**, who has performed several implement tests worldwide, is responsible for most of these Pöttinger-Valtra test projects.

 These test have been most useful for us.
 We have been able to use the test results in our product promotion and training materials.
 In addition, many ideas have been used for product development to improve the features of our products, as well as how the tractor and implements work together, says Stephan Ackermann.

Based on the experiences gained in tests, lightweight implements offering front and rear mounting alternatives and with powerful PTOs are increasing both performance and flexibility. For many customers the most ergonomic reverse-drive option is ideal. Pöttinger also offers a reverse-drive version of a triple mower combination.

Tapio Riipinen

B&B Contractors Ltd Pick a reliable brand for a reliable Service



Tim Blove always wanted to drive tractors and at 16 left school, purchased his first tractor and went contracting. Tim has been contracting ever since but today he actually gets into the tractor cab less often. Today B & B Contractors Ltd of Gunnislake runs a fleet of 12 tractors, several trucks and, alongside the agricultural contracting business, there is a Bio Solids haulage and spreading contract for South West Water, a waste plastic recycling business and hazardous waste removal service plus plant hire and haulage and some 850 acres of farm land carrying 250 cows producing finished suckler beef to manage.

On his way to developing such a business **Tim Bloye** has never been afraid to embrace new farming technology. "We were one of the first contractors with a round baler and the first in the South West to operate a slurry injection system – perhaps we were a bit early in that market. It cost more to run and therefore hire than a splash plate system and it did spend a lot of the early days parked up as farmers preferred the cheaper option," Tim recalls. "However, the system gradually became accepted and popular and as a result we were ahead of the game!" Tim was also an early operator of umbilical systems which still operate.

Today B & Bs 12 tractors are split into two distinct fleets. There are those used for agricultural contracting; "we will undertake just about any farm operation from ploughing and cultivating through to harvest and silage making." Then there are those used for the road haulage of bio-solids. This second fleet of four tractors all have O licences, operate on white diesel and haul plated and tested trailers.

Operating under tight constraints; "farmers all want their crops planted and harvested at the most advantageous time and the bio solids at South West Water's plants just keep on coming – it has to be moved," how does Tim Bloye choose his tractors?

"I've four main criteria," points out Tim. "First point; I demand a reliable machine, an unreliable machine is totally unacceptable. Second I want a reliable, experienced dealer. I accept that there can be problems so I need to know that if, when, they occur there is first class back-up available. The driver is also very important; I have developed a good team and want to keep them happy; happy staff are productive and careful with machines. Finally, value for money, or in other words reliability at a sensible price."

So what tractors does Tim Bloye run?

Today it's essentially a Valtra fleet. "Some time ago I started buying equipment from Christian Smith at Liskeard. A few years ago Christian changed his tractor brand to Valtra and I have to say that I was not sure I wanted to change with him. Valtra lent us a tractor to try on various operations and my men were convinced. I was still not sure - I had a good dealer, the men liked the machine and it was at the right price; three of the four criteria so I decided to give it a go. Today we are moving towards a totally Valtra fleet with six new tractors delivered recently. All Tim's Valtra tractors have been reliable; 8,500 hours in three years without serious problems is not uncommon. Christian Smith and Valtra have given us excellent support and, importantly I've recorded a 10 % reduction in fuel consumption and these day's that's a lot of money particularly when we're using white diesel in some tractors." Tim uses Ecopower T150s and T151s tractors for agricultural contracting and T180 for road transport. With the Valtra fleet proving its reliability Tim and his team have been able to provide clients of all types with an equally reliable service - winners all round.

Roger Thomas

1. Tim Bloye has developed a wide range of services for farmers – based on reliable equipment.

2. Driver Stuart Barriball is happy to spend long hours in the Valtra cab clocking up getting on for 9,000 hours in three years – although with its pile carpet the cab looks like new.

3. Tim Bloye and his drivers keep their equipment in first class order. Covered loads, lighting, air brakes and suspension plus an O Licence and plated and regularly tested trailers.

4. Bio Solids just keep coming so have to be tipped during inclement weather for spreading on a better day.





A-series



Popular among ploughing champions

As many as one out of four tractors in World Ploughing Contests are Valtras

The Valtra A Series is a popular tractor among competitive ploughmen and women around the world. A competitive ploughing tractor should be small and agile, offer unimpeded ingress and egress for the driver, feature a low cab situated to the rear, and of course have an extremely precise linkage. The A Series successfully combines all of these attributes.

Valtra drivers have certainly enjoyed a lot of success in ploughing competitions. Anders Göransson-Frick from Sweden became World Champion in 2002 in the Reversible Ploughing category, John Tracey from Ireland took silver in the Conventional Ploughing category in 2005, and his countryman Eamon Tracey took bronze in the same category in 2006.

Before becoming four-time World Rally Champion, **Tommi Mäkinen** also enjoyed success at the wheel of a Valtra tractor. Mäkinen began competing in ploughing competitions at the age of 14 and won his first Finnish Ploughing Championship title when he was 19. He went on to win two more Finnish titles before the young farmer switched to rally cars a couple of years later. Since retiring from the rally circuit, Mäkinen has returned to his farming career on his family farm just twenty kilometres from the Valtra factory.

Rautiainen has his eye on a medal

Having won the Finnish Ploughing Championship title in the Conventional Ploughing category for the past three years in a row, **Matti Rautiainen** will travel to the World Ploughing Contest in Austria in August 2008 with high hopes of placing in the top three. This will be the fourth time that Rautiainen is competing in the world championships.

The first time I competed, in the Czech Republic, was very much a learning experience.
I forgot to set my watch to local time and received a time penalty as a result! Without that I would have been fourth. Before the next world championships in Ireland repairs were made to my ploughs, and I had little to time to practice.
I ended up in ninth position. Last year in Lithuania I came in fifth. This year, if all goes well, I'm sure I can improve my position, Rautiainen states confidently.

Rautiainen drives a Valtra 900 pulling Kverneland ploughs.

 The Valtra 900 has a relatively long wheelbase, which helps it to pull straight. Furthermore, the Autocontrol linkage is very precise.
 Of course, visibility is also important, as is the overall feel and controllability of the tractor, Rautiainen describes.

At last year's Finnish championships, a demonstration event was held between a human-operated tractor and a GPS-guided tractor. Although the tractor driven by the ploughing expert drove straighter, the GPSguided tractor would have outperformed most average drivers. As GPS technology continues to improve, it cannot be long before a machine outperforms even the best human.

Danish ploughing champion also drives a Valtra/Valmet

Søren Svenningsen from Aalborg in Denmark won the 2007 senior competition in ploughing driving a Valmet 6800 with a two-furrow Kverneland plough. The Danish championships were held on the 26th and 27th of October 2007. The competition was extremely close, with only five points separating first and third places. Svenningsen received 233 points for his performance, which was one point more than Søren Korsgaard who took second.

In 2007 the championships were changed from a one-day event to a two-day event,

Søren Svenningsen







allowing the competitors to perform better without as much time pressure. The conditions at GL. Estrup where the competition took place were near perfect. The weather was good and the soil homogeneous, providing equal conditions for all the competitors.

Søren Svenningsen has been ploughing competitively for around 17 years. Svenningsen has participated in the Danish championships on six previous occasions with good results, including two third places and one second place. In 2007 Svenningsen achieved one better and was crowned Danish Champion in the senior category.

Svenningsen borrowed the Valmet 6800 for the championships from **Keld W. Jensen**, a farmer who Svenningsen helps on occasion. Jensen is also a loyal Valtra customer. His collection includes newer tractors, including a Valmet 6800 and Valtra T190, as well as classic tractors, such as a Volvo 810, a Volvo 814, a Volvo BM 2650 and many other older machines.

Svenningsen is very much looking forward to representing Denmark at the World Ploughing Contest in Austria in August 2008.

UK champion has competed for 35 years

Farming in partnership with his parents and brother **Geoff**, **Peter Alderslade** contracted the match ploughing bug while still in his early teens from father Tom, who has over 100 championship titles to his name. Peter's first match combination was a Ford 5000 and Ransomes four-furrow conventional plough, and at his first event Peter well remembers coming second and having his winnings topped up by the princely sum of 1 pound for being the youngest contestant.

Over the thirty-five years that Peter has been competing he has used several combina-



Peter Alderslade

tions of tractor and plough, but he now favours a Valtra A95 with a two-furrow Kverneland reversible plough. He has used this combination for the past two years and in 2007 won the reversible class at the 57th British National Ploughing Championships – one place up from 2006.

So why did Peter opt for a Valtra for his match ploughing?

– We wanted something that would work well on the farm and the competition plots, Peter replies. We've never had Valtras before and looked at a host of tractors. The Valtra A95 was available with a loader, which we also needed, and I liked the fact that the seat is near the rear of the cab – it provides an excellent view of what is going on behind.

Peter was also impressed by the hydraulics: – I've been able to fit a hydraulic top link and hydraulic linkage stabiliser, plus a ram to alter front furrow widths. The wheels come in to 54-inch centres, which helps improve the quality of the finish. Importantly the tractor is quite light so it doesn't create a compacted rut that can result in an uneven furrow. Getting in and out is also easy – on both sides.

Although the Alderslade farm has a telehandler, the A95 handles a lot of loading operations effectively.

 We've also been surprised by the power.
 It handles a 24-metre trailed sprayer well and does a good job running the trailer out to the combine at harvest. Importantly it doesn't use a lot of fuel – less than previous tractors is the general consensus, Peters says.

So pleased were the Alderslade family with the performance of the A95 that they looked at other machines in the Valtra range when one of the farm's large tractors needed replacing.

 Tommi Pitenius Søren Bruun Roger Thomas



Hereford breeders gather in Copenhagen

The World Hereford Council, which has almost 20,000 members in 22 countries around the world, will hold its annual conference this year in Europe. Every four years breeders gather to meet and exchange information about all aspects of breeding and maintaining Hereford cattle.

Hereford cattle are known for the high-quality beef they produce. The breed has adapted to a wide range of climates on nearly every continent, thriving in both freezing and hot climates. Maintaining the purity of the breed is more important than ever. The World Hereford Conference will offer Hereford breeders a forum where they can learn about the latest research results, as well as technical and practical information.

As the only Nordic tractor brand, Valtra is keen to do its share in developing the Hereford breed by participating in and supporting the 15th World Hereford Conference to be held from 29 June to 1 July 2008 in Copenhagen, Denmark. Participants will have a unique opportunity to visit Hereford farms in all the Nordic countries before and after the conference.

For further information about the breed and the conference, see **www.worldhereford.com**

* * *

Fresh design for Valtra websites

Valtra is introducing updated websites this spring. The new pages feature a fresh design and a range of new content areas to better serve our online visitors.

Valtra has developed its web services based on feedback from customers and other web visitors. The main improvements to the new sites include better information about parts and tractor maintenance, more detailed technical information, and the use of more rich media content. In addition, the usability of the pages has been improved greatly.

Check out the new website on **www.valtra. com**. We look forward to your feedback!

Keep it light weight



Arable farmers minimise compaction by fitting machinery with flotation tyres but the effects of compaction seem to have bypassed many grassland farmers yet compaction caused by field traffic can be equally costly and yield gains by fitting machinery with flotation tyres startling. Research into effects of field traffic on grassland took place over 3 years at Ireland's Teagasc (The Irish Agriculture and Food Development Authority) research station at Oak Park Carlow where soil is heavy textured and free draining and at Kilmaley in the West of Ireland where a shallow top soil overlays an impervious poorly draining sub soil.

Fields were split into 3 metre strips alternating between those in the trial and those excluded. A special machine straddling the 3 m strips was used to harvest grass which was then weighed. Tractors – forage harvesters, trailers



and balers etc – running on 'standard' tyres and on flotation tyres were weighted to simulate machinery in working trim and run over the 3 metre strips to replicate various operations, a method that avoids anomalies resulting from full or partly loaded trailers and machinery. These trials were repeated on the same land for three years with three cuts per year.

Dermot Forristal explains the results. "If we take the yield on Kilmaley plots where harvesting was simulated using standard tyres as representing 100, then the yield using flotation tyres came in at 115 while the yield from the zero traffic plots yielded 130 – increases of 15 % and 30 %. At Oak Park differences were a little lower. Low ground pressure showed an 8 % increase and zero traffic plots 9 % compared with conventionally tyred machinery plots."

It can be assumed, had trials continued, the differences would have continued to grow but the rate is open to conjecture. What is not open to conjecture are the financial advantages.

The research team concluded that at the time it would take an increase in yield of only 1.7 % to cover the cost of upgrading tyres on a self propelled forage harvest working over 1,000 ha. The tyre upgrading costs of a couple of tractor and trailer units working on just 160 ha could be covered by a yield increase of just 2.7 % and for a baling and wrapping system handling just 8,000 bales the cost of fitting flotation tyres would be covered by a yield increase of 1.5 %.

These results and costings were published a few years ago and a number of factors have since changed. Machinery has got heavier requiring perhaps even larger floatation tyres to achieve low ground pressure. Costs have increased, particularly fuel. Against this the price of cereals has risen, which in turn has increased the value of good quality home grown silage. As a result increases in tyre costs will have a minimal overall effect and it must be remembered that the use of flotation tyres has additional advantages not studied in the trials. They reduce rolling resistance and therefore fuel consumption while enabling harvesting when crop growth is ideal increases silage feed value; both advocates for flotation tyres. Remember too that the range of agricultural flotation tyres has increased dramatically and are now very competitively priced.

Valtra tractors are, by design, light weight and well balanced for 4WD operation. It's easy to add ballast but impossible to remove designed-in weight. Valtra also offer a range of factory fitted flotation tyres but if you need to convert an existing tractor, tyre specialists are able to supply both wheels and tyres. And, while it is fully laden trailers and heavy self propelled foragers that are potentially the most damaging all traffic over a grass field will add to the compaction problem including harrowing and fertilising. Light weight Valtra tractors on the correct tyres can help reduce the problem.

Roger Thomas



Valmet 502 – quietest tractor in the world

The introduction of the Valmet 502 in 1971 took the tractor world by surprise. For the first time ever a midsize – for the time – 54-horsepower tractor was available with an enclosed cab as standard. Furthermore, the cab had been designed as an integral part of the tractor.

The keyword for the entire design was ergonomics. Valmet's engineers had studied ergonomics under the leadership of R&D Director **Rauno Bergius**. This scientific discipline had already been applied to the Valmet 900 in 1967 and the Valmet 700 in 1968, but only with the introduction of the Valmet 502 were entirely new solutions introduced that made the 502 an instant classic in the tractor world. The design of the tractor was influenced substantially by industrial designer **Henrik Wahlforss**, whose work could also be admired in the sixtyre Valmet 1502.

The official noise level of the 502 was rated at N85, meaning that the human ear could withstand this noise for five hours in a row without any major risk of damage to hearing. All other competitors with the exception of the BM-Volvo T650 had noise levels up around N90. None of these tractors featured a safety cab designed by the manufacturer itself but instead used standard "mass production" cabs from a supplier.

When looking at the overall design of the 502's cab today, one characteristic stands out above even the low noise level. The cab is an enclosed module that was placed on the chassis with four rubber cushions. This eliminated chassis vibrations from being transformed into





The Valmet 502 stood out from other tractors of the time. The tractor's three-cylinder Valmet 310B engine had a capacity of 2.7 litres and produced 54 hp SAE/2 300 rpm. The partially synchronised transmission featured six forward and two reverse gears. The unloaded weight of the tractor was 2 495 kilos.

cab noise. Because it was fully enclosed, the cab could also be fitted with a proper fresh air heater unit.

Access into the cab was safe and easy thanks to large doors and a flat floor. The seating position of the driver was ideal thanks to the precise positioning of the seat and steering wheel. The Valmet 502 was the first midsize tractor in the world to be equipped with hydrostatic steering as standard. This eliminated steering wheel vibrations and shocks to the fingers.

All the main controls were grouped on the right side of the driver, and even the gearshifts were removed from between the driver's legs. The driver's seat could be rotated by 30 degrees to the right and reclined by 8 degrees to achieve a comfortable ploughing position.

The design of the cab itself was functional. Thanks to the sloping sides, the cab was ideal for forest use. At the same time the large windows offered an unobstructed view in all directions. Implements could be reached by hand by lifting up the passenger bench in the rear or by opening the two-part rear window. Also at the rear of the cab was a lever for adjusting the position of the linkage, making it easier to attach implements.

This revolutionary tractor was also radically different looking than other tractors of the time. The sloping engine cover that became a trademark of Valmet and Valtra tractors was highlighted. The engine cover was also narrow at the rear, thus improving visibility forwards. The minimalistic design of the engine cover also allowed better access for servicing and maintenance.

An improved version of the Valtra 502, the so-called E Model, was introduced in 1974. The E Model featured a double hydraulic pump and offered the option of 14.9-30 rear tyres. The model was further updated in 1978 with the option of bright new colours and a onepiece rear window.

Altogether over 20,000 Valtra 502s were manufactured between 1971 and 1982. The following model was the red Valmet 504, then the 305... In principle the best features of today's Valtra A Series are based on the genes of the 502.

Hannu Niskanen

AGCO Ltd Abbey Park Stoneleigh Stareton Kenilworth Warwickshire CV8 2TQ

Tel 02476 851202 Fax 02476 852435 Sales: valtrasales@uk.agcocorp.com After Sales: valtraaftersales@uk.agcocorp.com Website: www.valtra.co.uk



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