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As I write this editorial, the Western Cape will be declared a drought disaster area with Cape Town going into crisis management mode. All provinces have and are being affected by the prolonged drought, and the lack of water is having a chronic effect on the economy, the environment, and communities. We hope that provinces entering their dry season will survive winter season without experiencing devastating forest fires.

Fire was a topic discussed at one of the year’s most important gatherings: The Focus on Forestry symposium. For the first time the event featured the full forest management value chain, and topics included nurseries, silviculture, fire protection and forest engineering.

Whilst this type of event is often perceived to be purely targeted at technical people, there is significant benefit to be derived for people at all levels in the organisation. It also goes a long way to inform new entrants to the field about the status of, and their roles in, the South African value chain and how it compares with African and global developments. In addition, the opportunity to mix with peers in a stimulating informal setting helps form long-lasting relationships for mentoring and further professional development.

David Crickmay is a significant example of someone whose humble, forward-looking, and positive attitude made a difference. Dave will be sorely missed; and his legacy continues with the Intermill Comparison and Lumber Index, which are indispensable tools for running sustainable sawmills.

Business sustainability is dependent on stable socio-economic and political environments. Forestry SA has, on behalf of the industry, submitted a comprehensive comment to the Davis Tax Commission on the impact of proposed land, property, and wealth taxes.

The submission states that taxpayers are reluctant to pay additional taxes until the government:

• uses existing tax revenue more efficiently and effectively by adopting best business practices and ensuring properly qualified state officials are matched to the jobs they are employed to do;
• ensures state owned enterprises are run properly by properly qualified people;
• eliminates the billions of rands spent annually on irregular and wasteful expenditure; and
• makes a meaningful attempt to root out all corruption.

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Focus on Forestry emphasises holistic and innovative forest management

The future of forestry in Africa is dependent on managers and contractors with core technical competence, sound management and business skills, and an intricate understanding of value chain risks and how each discipline influences the other, says Andrew McEwan of CMO.

The organisers of Focus on Forestry 2017, CMO, the Institute for Commercial Forest Research (ICFR) and the Nelson Mandela Metropolitan University (NMMU) set out to facilitate discussion and awareness of the mechanisation changes in the industry. In this they succeeded and, in many aspects, exceeded the expectations of the delegates, speakers, and sponsors of the event.

"From an organising perspective, Focus on Forestry is not intended to be a profit generating activity - our primary goal is to bring all the different role-players in our industry together for exposure to additional information, new products and, of course, the ever-vital networking," explains McEwan.

CMO believes the forestry environment in Africa is currently undergoing considerable change. McEwan says: “Within South Africa, changing land ownership patterns in plantations allow us to re-examine our management models to reflect a more efficient way of producing timber with enhanced benefits to the owners of the land and the users of the timber. Progressive management always examines innovative ways of carrying out operations to reduce the constantly changing safety, productivity, environmental, quality and social risks.”

This year Focus on Forestry adopted a holistic view that focused on the full forest management value chain, and included nurseries, silviculture, fire protection and forest engineering. The traditional way of operating within these disciplines causes inefficiencies, unnecessary tension between the role players and loses sight of the main objective of the process, that of meeting the needs of the end-user.

“There is currently a positive move across the full forestry value chain of innovating, improving and modernising operations to mitigate these risks,” says McEwan. He pointed out that South Africa is not alone because the expanding African plantation landscape is facing the same challenges to a larger or lesser degree.

When it comes to developments in this forestry part of the sector value chain neither the industry or the suppliers can adapt or develop new technologies without closely collaborating with each other. The strong exhibitor presence at Focus was the core of its success. “Suppliers need a platform where they can market their products to a large and relevant audience. Focus delegates have tremendous value added to them through being able to interact with these exhibitors and become aware of some of the solutions that are available to address their risks, says McEwan.

Michal Brink of CMO agrees and say the organisers would like to thank the entire industry for their support.

“We aim to make this event even bigger with more added value for exhibitors and delegates alike. The dates have been set for Focus on Forestry 2019 and it will be held in Mpumalanga from 17 to 19 April 2019 with the exciting theme: Bridging the digital divide in the African forestry sector.”

Focus on the sponsors
The organisers and industry thank the sponsors for their support of Focus on Forestry 2017 and the industry.
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- FireHawk
- ICFR
- Mondi
- NMMU
Focus on Forestry 2017
a tremendous success

The keynote address on the topic of Scenarios for South Africa and the forestry industry: Thinking the future, set the tone for the Focus on Forestry conference that spanned the local and international forestry industry value chain, from soil science to roadside.

The Focus conference was held over two days at Cedara in KwaZulu-Natal in the closing weeks of April. It was attended by close on 300 people, who also took advantage of the fine Autumn weather to attend the Focus field day at Mondi’s nearby plantation.

Futurist and scenario planner, Chantell Illbury, kicked off the conference by sketching various scenarios for South Africa and the forestry industry. Through the years, Illbury and Clem Sunter have made it their business to inform decision makers about the need to transform their predictable business strategies from a hedgehog-like approach to that of a fox.

“Foxes are agile strategic thinkers that run businesses that are flexible and able to adapt quickly to new market forces. Hedgehogs can still be found in the agriculture and forestry sector where their predictable and inflexible business tactics can cause their businesses to stagnate and even become obsolete,” explains Illbury.

“The year 2020 is going to be a crucial time for South Africa, because it is election year and the leadership struggles and junk status of our economy give us a 50:50 chance of survival,” Illbury commented. She says the main challenges for the forestry industry over the next 10 to 15 years are:

• Land claims and land redistribution: this must be carefully watched, particularly in the light of climate change
• Mechanisation: a global drive for digitisation and productivity enhancement
• An outsourced industry: corporate power is increasingly shifting to individual power. The process must be carefully managed
• Investment in Africa: sustainability of resources and businesses is key to survival. Protectionism is going to be a key factor and will lead to complex trade relationships.

The themes of the conference were:

• Mechanised silviculture
• Fire management
• Mechanised harvesting
• Forest engineering research results in practice.

Michal Brink was not really in his cups – he put them to good use by knocking them together to summon the delegates back to their conference seats after each comfort break.

The four sessions were chaired respectively by:

• Colin Dyer of the ICFR,
• Themba Vilane of Mondi,
• Simon Ackerman of the ICFR, and
• Muedanyi Ramantswana of NMMU.

Prof Michal Brink of CMO took responsibility for herding the delegates back into the conference hall at the end of breaks. The lack of a bell did not stop him from “making a plan” and banging cups together so effectively that there was much amused head shaking – and instant obedience!
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The ins and outs of saws: Steve Mingay demonstrated the Oregon chain saw sharpening system during the conference and at the field day.

Jaap Steenkamp entertained a steady stream of foresters who wanted to know more about the Novelquip all-in-one mechanised silviculture system.

The Hitachi excavator fitted with a Logmax E6 head and Logmate 500 management system cuts, debarks and stacks eucalyptus during the Focus field day.

Flip Breytenbach of Afrequip directs attention to the machines going through their paces.

The NQF T16 multipurpose universal carrier was used to demonstrate I-Cat’s firefighting equipment. Jaap Steenkamp of Novelquip says the NQF T16 has a low centre of gravity and two steering axles. This makes it a four-wheel drive with crab steer that allows it to creep at 35km/h fully laden with 16 tonnes.
NMMU’s Muedanyi Ramantswana chaired the forest engineering session during the conference and Kylie Schwegmann presented a paper on coppice regeneration and mechanical harvesting.

Benno Krieg of Bostek describes the challenges presented when harvesting the cossid moth infested trees.

Andrew McEwan was in action at the Focus conference and field day.

Justin Bell demonstrated the abilities of the four-wheel-drive 74kW Skagger.

Ashley Bell introduces the Matriarch brand.

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Focus on mechanised harvesting for steep slippery slopes

For almost a century manual felling, debarking, cross-cutting, and stacking of timber, followed by motor-manual felling and cable yarding have been the most appropriate timber harvesting systems. Today, however, innovation and modern technologies are resulting in the development of mechanised machines capable of working safely and cost-effectively on a wide range of terrain.

Timber harvesting on sloped ground is a challenge in terms of economic viability, safety, and environmental performance. The development of cable-assist machines is expanding the operating range onto very steep slopes. Speaking at the recently held Focus on Forestry conference, Andrew McEwan of CMO, and Gary Olsen of Tigercat, described the way technology is pushing harvesting machines onto ever steeper gradients, as well as the ergonomic advances ensuring the comfort and safety of operators.

Forecasting harvesting technologies

Andrew McEwan is completing his doctoral thesis and took the audience on his research journey to forecast the global timber harvesting technologies that will emerge over the medium term to harvest short rotation plantation Eucalyptus and Acacia. He presented an overview of plantation forestry developments, the status of current harvesting systems, and the drivers of short rotation plantation Eucalyptus and Acacia harvesting systems. His research is still in progress and his forecasting of future technologies is not yet complete.

McEwan says the main drivers that influence the technology for harvesting machines and the choice of harvesting machines, systems and methods are:

- The effect of variations in tree size: small trees favour full tree systems (FT) and larger trees are usually harvested cut to length (CTL)
- The global trend of expansion of plantation areas to steeper terrain is having a dramatic effect on technology choices. On slopes of 35% and greater, cable yards and/or modern cable assist ground-based equipment is used.

An example of the European cable assist method with an external mounted winch
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• The diversity in plantation design requires versatile technology, machines, and systems. Optimisation software provides fast and accurate adjustments of machine settings to react to changing conditions, value recovery and quality control
• An increase in importance of site impacts regardless of the harvesting method: for instance, multiple-axle units and an increase in CTL, even where FT could still be competitive
• The increased use of biomass for energy results in plantations grown for the sole production of biomass, or biomass is a secondary product
• Climate change and other societal values like emissions, energy usage, waste, and safety, are increasingly affecting harvesting systems.

McEwan concluded by saying the forestry industry is dynamic. “Those who can afford modern technologies will obtain the greatest benefits.”

**Steep slope logging**

Gary Olsen delivered an entertaining talk on how mechanisation has resulted in a shift in thinking about steep slopes. Drivers of this development include:

- Food security is a higher priority for land use, and the forest industry is finding itself in increasingly marginal land. This invariably means planting and harvesting on steeper terrain
- It is widely believed that an operator inside a properly certified cab on a purpose-built levelling felling or shovelling machine on an extreme slope is safer than a choker setter or manual feller in the same terrain
- Safety risks mitigate the increased harvesting costs of cable yarding and steep slopes, and
- Forest owners pushing the boundaries

He presented a potted history of the development of steep slope harvesting since 1998. These include:

- Tracked systems
- Zero tail swing and tracked levelling systems
• Powerful directional felling heads with 360 degrees rotation
• Grapple technology with cable yarders
• Six wheeled skidder technology
• Six and eight wheeled forwarders
• Disc saw high rotation wrist options
• Ergonomic interventions like the turn-around cab seat
• Traction aids, for example chains
• Tethered logging

Tethered logging is the use of cables to enable ground-based machines to operate on slopes that would not otherwise be possible. These machines either have an on-board winch with a cable attached to a secure point upslope, or an anchor machine equipped with a winch located upslope and the cable attached to the logging machine.

This technology can keep the operator safer and has the potential to reduce harvesting costs on steep areas. The main purpose is to assist with traction and stability, thereby extending the slope limitation boundaries.

The systems can be used with full ground based harvesters or forwarders, or cable yarding systems. They are mostly used in countries with large areas of steep slopes, such as New Zealand, Austria, Switzerland, and Canada.

The trend in this type of logging includes the European cable assist method with an integrated or external mounted winch, where the winch provides traction and does not pull the machine. The other is the New Zealand and Pacific North West cable enabling method that is approved for slopes of 50 degrees or 120% - with variations like:

• a hitch point and extended grousers
• an anchor machine and winch system, such as a cable yarder, bull dozer or excavator
• a skidder hitch point
• camera and tension monitoring systems
• an integrated winch on a non-levelling carrier (this requires a blade as a secondary braking device)

Olsen pointed out that “no amount of modern day harvesting equipment and technology, nor any future ordinary or miraculous inventions and developments, will ever replace or reduce the need for sound tactical and operational harvesting planning.”

In addition, “Despite all the risk mitigation, safety systems, mechanisms and devices that currently exist on modern state-of-the-art harvesting equipment, the operator, his or her upbringing and background, the ability to assess and avoid risk, and attitude towards working safely is what will determine how safe an operation can be”.

Olsen ended with the tongue-in-cheek suggestion that the industry could consider investing “in an intensive and extensive programme to cull all silviculture foresters, managers and contractors who so much as think of planting trees above 35% slopes in the future.”
Focus on modernising silviculture operations

Delegates at the Focus on Forestry conference heard how improvements in silviculture operations over time, or modernisation as it is better known, can result in increased productivity, technical developments and improved ergonomics and safety for workers. Together these form a crucial foundation for the forest value adding chain.

Dean da Costa of Mondi and Jeffrey le Roux of Sappi reported on their experiences of modernising tree production through a range of interventions that includes mechanisation of operations.

Dean da Costa

Da Costa described how Mondi identified and addressed specific challenges in the forestry industry. These include poorly-developed infrastructure; large geographical areas and distances; declining rural population as young, skilled people move to urban areas; an ageing rural workforce; increasing labour costs, high labour turnover and the impact of HIV/AIDS.

He said the modernisation goals achieved at Mondi over the last three years were “better than expected”. The goals included:

• providing a safer workplace for employees by moving away from high-risk and heavy manual tasks
• increasing productivity, while lowering overall operating costs
• providing decent work through higher-skilled jobs with increased salaries and improved ergonomic practices
• ensuring a consistent and sufficient workforce, as forest harvesting is arduous work with high labour turnover and absenteeism rates
• developing long-term relationships with contractor companies, thereby enabling stable employment for forestry contractors, and operational and safety practices of the highest standards
• contributing to the viability of local communities

This was achieved by fast-tracking the modernisation of silviculture operations by:

• upgrading nurseries
• modernising and refurbishing firefighting operations by putting effort into reducing fuel loads, introducing technology, and specialised firefighting training and management
• managing residues and one of the greatest impediments to mechanised silviculture - stumps
• ergonomic and productivity improvements of all silvicultural operations, particularly pitting operations
• semi-mechanised planting, watering and fertiliser operations techniques
• modernising coppicing operations by moving away from pangas and slashers.

He ended by saying Mondi is continually learning through its modernisation processes and important takeaways are that the severity of potential injuries through mechanisation is much higher. It is essential to mitigate with careful planning, new roles and responsibilities for supervisors, quality management systems and structured auditing.

Jeffrey le Roux

Jeffrey le Roux described some of the challenges overcome by Sappi in the process of “setting up the plantations for future generations”. The company’s Zululand plantations had a history of harvesting practices that left behind hectares of stumps. The process of eliminating stumps prompted a rethink of planting espacement and row direction, which was changed to north/south.

Zero stumps provide many opportunities for improved silviculture applications, fire protection and harvesting options, such as:

• better access to compartments for firefighting vehicles and lower fuel costs for mechanical equipment
• gives foresters more options for choosing pitting, planting and weeding operations
• any harvesting/extraction system can be used because there are no stumps restricting access.

Le Roux described the benefits and risks that come from mulching instead of burning after harvesting across Sappi’s Zululand plantations. The value in mulching lies in the impact it has on the ability to reduce the temporary unplanted (TUP) areas and potentially improve mean annual increment (MAI).

TUP areas are not productive and they become a cost burden because the coppice and weed regrowth has to be treated repeatedly the longer the land lies fallow. In addition, if the drying slash cannot be burnt, it increases the fire risk. Before the mulching strategy was implemented, Sappi Zululand’s TUP areas had built up because of adverse weather conditions.

Le Roux said during the mulching process, slash and stumps are reduced to a mulch layer that covers and protects the soil from the sun and the land goes straight back into.

Mulching:

• improves survival and early growth of seedlings
• protects soil and plants from wind erosion and sand blasting
• retains moisture and nutrients and gives significant productivity gains

The graph shows the direct reduction in temporary unplanted areas at Sappi Zululand since the implementation of mulching.

Dean da Costa used this slide to illustrate the objectives of modernisation

• decomposing mulch releases nutrients into the soil
• reduces soil compaction
• the mulch layer provides a buffer between the tyres/tracks of heavy vehicles and the soil beneath
• reduces TUP areas because mulching can take place immediately after clear-felling; and soil preparation and planting can happen immediately after mulching
• reduces fire risk due to the finer size of the residue and higher moisture level which reduce flame height and rate of spread
• extends the planting season because the mulch protects and nurtures the soil. In the case of Sappi’s plantations in KwaZuluNatal, mulching extends the planting season by at least three months.
Wild fires and forest fires usually occur in remote, hilly and rocky terrains that can only be reached by foot. This means that standard firefighting methods, like tractor plough and LDVs fitted with hose reel units cannot get close enough.

In forest firefighting, a common suppression method is an indirect attack with fire control lines. Indirect attack means fighting the fire from a distance by burning off intervening fuels from a natural or hand-constructed barrier that will prevent the further spread of fire.

The most common barrier in indirect attack is a fire line or a break in the fuel completely around the fire. When the fire reaches this line, there is no fuel to feed it so it simply goes out. In difficult terrain, the standard firefighting tool is the fire rake or beater. Husqvarna’s backpack blowers are designed for these conditions and can be deployed speedily and efficiently and are ideal for use on slopes too steep or inaccessible for ploughs or engine units.

There are more than 1,26-million hectares of plantations in South Africa. Over the past 30 years, on average more than 31 000 hectares of trees have been damaged per year by fire, arson, weather related causes, pests and disease. Of this area, 18 000 hectares is due to fires.

Many landowners and timber growers countrywide still talk about “forestry’s own 9/11”, when in the six weeks between 25 June and early August 2007, at least 77 000 hectares of...
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Forestry

18 May 2017 // Wood Southern Africa & Timber Times

The 1.2-million hectares of timber plantations in South Africa were damaged by devastating runaway fires, mainly in KwaZulu-Natal and Mpumalanga. That represented 6.4 percent of the national plantation resource.

These fires killed more than 20 people, including firefighters, and hundreds of farm animals. It destroyed crops, buildings and equipment and livelihoods. The impact on biodiversity and the environment was enormous: in some places, absolutely nothing survived.

The damage to the forests was catastrophic and estimated to be around R2-billion, and another R6-billion to downstream processing. It is now ten years later, and we are still experiencing runaway fires and their devastating aftermaths.

Recognising that the challenging and dangerous job of fire control is expensive and labour intensive, Husqvarna proposed its commercial backpack blowers as fire management tools several years ago, elevating fire control to the next level.

“Speed and efficiency when conducting controlled burns can also make all the difference. Seven years ago, Husqvarna radically changed fire management methods when it introduced the industry to an innovative use for its commercial blowers,” says Adrian Beaumont, country manager at Husqvarna SA.

He describes the Husqvarna 580BTS as one of the most powerful backpack blowers in the world. The powerful X-Torq engine produces the highest air flow of all backpack blowers on the market, pushing out close to 26 cubic metres of air per minute. The highly efficient fan design provides large air-flow and high air speed. Harmful exhaust emissions are reduced by up to 75 percent and fuel efficiency increased by up to 20 percent.

The commercial grade air filter guarantees long hours of trouble-free operation. This machine is also equipped with air injection, which cleans the intake air before it enters the engine, and which is an important function when working in smoke-filled, dusty and sooty environments.

“The 580BTS is not the only weapon in our arsenal of fire control equipment: there is also the Husqvarna 570BTS,” says Beaumont.

“While in-field research has shown that the volume of air exiting the nozzle of the 570BTS is lower than that of the 580BTS, the higher air velocity achieved by the 570BTS (378km/h) means it is also a highly effective tool in fire control applications. So, depending on the size and scope of the fire you need to control, the 570BTS might well cater better for your needs, especially if cost is a determining factor,” he explains.

“In fact, one fire fighter using a Husqvarna 580BTS is as effective as six to eight men using traditional fire beaters, and it can also replace three operators using manual knapsack sprayers. We recommend that the 580BTS be used in conjunction with the Husqvarna 325S25 motorised sprayer, which is ideal for burning tracer lines.”

Tree-mendous effort for International Day of Forest: Husqvarna donated and helped plant trees at Arden Farm School in Mid-Illovo, Richmond. The school principal, Mrs Zondo, thanked the Husqvarna representatives, Jacqui Cochran and Alice Williams together with Shanon MacKenzie, organiser of the Husqvarna Classic Mid-Illovo MTB & Trail event, for their support.
Registration for international forest engineering summer school now open

Don’t delay if you want to participate in the popular international forest engineering summer school that will be held from 20 November to 8 December 2017 at the George Campus of the Nelson Mandela Metropolitan University (NMMU).

The theme of this, the third programme, is: Technology based solutions to manage integrated harvesting and transport operations. The course targets practitioners (forest managers/experts and contractors), researchers, academics, and equipment manufacturer staff. Attendees will leave the course enriched and competent in understanding the principles of successfully managing the full forest engineering work cycle.

The organisers of the programme, CMO, have taken note of the recommendations from their customers and this year they are realigning the summer school approach to include:

- Technology-based solutions – every delegate will be issued with a tablet loaded with software that will be used throughout the course. This includes digital harvesting planning and application of digitally-based assessments of machine operators. Simulators are also used to enhance the learning experience
- Motor-manual operations

The five key performance areas that will be covered in the plan – do – check – act cycle approach are:

- Safety and health
- Productivity
- Environment
- Quality
- Social

The course includes a weekend of innovation coaching, team building and leadership – a critical part of being a competent forest engineer in today’s fast-paced and high performance environment. This part of the course is done over a weekend in one of the most beautiful natural settings in the world.

The lecturers are:

Prof Michal Brink who has over 30 years of forestry experience of which 25 years have been in logging. Michal has experience in corporate forestry, academics, research, contracting, training and consulting. Michal has visited over 80 countries in his 34-year forestry career.

Andrew Mc Ewan, who has over 20 years’ experience in the forestry industry. He has worked for large forestry companies in positions ranging from a forester to a forest engineering technical manager. He is currently a forest engineering lecturer and researcher at NMMU. He has travelled widely around the globe.

Dr Raffaele Spinelli, who works as an applied researcher for the Italian government. He has devoted the last 28 years to studying the optimisation of wood harvesting systems, covering a large variety of technologies, work conditions and geographical area (Europe, Americas, Oceania and RSA). Raffaele will particularly focus on work study and biofuel harvesting methods during the summer school.

Janie Brooks, who has been a harvesting machine operator for six years before deciding to join CMO as a machine operator instructor. Janie has great competencies in training on both cut-to-length systems as well as tree length systems.

Simon Shackleton has been active in forestry and the forestry machine business since 1979 when he joined...
a South African private company as a trainee harvesting forester.

From there Simon progressed into the sales and marketing of forestry harvesting equipment and also had a three year stint as a forestry contractor specialising in the harvesting of eucalyptus in the Lowveld region of South Africa.

With Timberjack and John Deere he has had the opportunity to visit every continent, apart from Antarctica. In his travels, Simon has been able to study different harvesting methods and gained a great amount of experience in the different systems and machines used globally.

Simon prides himself in being able to share his knowledge and advice when it comes to applying the right solution for the job. Simon’s current role is general manager forestry, sales & marketing, Asia-Pacific & Africa for John Deere, and he is based in Australia.

Gary Olsen has been in the forestry fraternity for nearly 30 years. His working career began in a large forestry company as a harvesting foreman supervising both a ground based and cable harvesting operation.

Drawn to the details of the harvesting equipment side of things Gary joined the sales and marketing arm of Bell and then Tigercat Industries, which is based in Canada.

He has more than 16 years’ experience in this environment and continues to travel extensively to harvesting operations around the world working as a consultant and seeking out alternative, improved and safer harvesting solutions through mechanisation.

Contact Michal Brink of CMO to find out more about the early bird registrations for the full three-week package, including meals, accommodation and class fees, that are available until 30 August 2017!

Contact him on michal@cmo.co.za
New generation F-series Bell tri-wheeler previewed

Bell Equipment took the opportunity to give Nampo 2017 attendees a preview of the next generation of its market leading three wheeled logger when it unveiled the new F-series tri-wheeler, which will be released for sale globally in the first quarter of 2018.

“The Bell Tri-Wheeler is a founding product that has become legendary due to its proud history of over 50 years in the sugar and forestry industries,” says Bell Equipment’s product marketing manager, Tim Beningfield. “There is always a danger when redesigning a product that is so well accepted by the market, but we’ve been mindful during the design and testing processes to keep true to the original design intent while adequately making advancements in the critical areas of safety, ergonomics and reliability, which combine to improve productivity.”

Bell has been testing the F-series for three years and has eight test units currently working in most forestry and cane regions across the country. These will have notched up in excess of 10 000 hours of accumulative testing by the launch date.

According to Beningfield, apart from addressing customer requirements, the F-series will enable Bell to rationalise the number of models it manufacturers by introducing a modular approach.

“We will bring to the market a base F-series machine that is equivalent to the current machine in terms of both specifications and pricing. However, customers will then be able to choose from a range of ‘bolt on, bolt off’ packages to tailor their machine to their specific needs,” he says.

“In this way they only pay for the technology and features that they require for their operating environment.”

Reduced noise levels
Bell Equipment’s chief engineer for agriculture and allied products, Ian Kramer, explains that moving to a water-cooled engine has substantially impacted on reducing noise levels. Bell has opted for the Japanese-manufactured Yanmar engines, which are highly regarded in the marine, construction and agricultural industries.

“The F-series will be available with two different engines. The first matches our current Tri-Wheeler offering by delivering 45kW at 2200rpm, while the second provides customers with the option of a high-powered machine with a turbo-charged engine that delivers about 25 percent more power,” says Kramer.

Noise reduction has also been incorporated into the design and the F-series, with full specifications, is able to reduce noise levels by up to 26 percent.

“At this level operators are not required to wear PPE to protect against noise as noise levels are below the 85 decibel parameter as stated by occupational health and safety standards,” says Kramer.

Improved safety and greater operator comfort
In terms of ergonomics, the F-series provides a larger cab with better ingress and egress points for operators, more head room and the seat can also be moved further back to more comfortably accommodate taller operators. Other improvements include improved instrumentation, dust exclusion from the cab, cabin lighting, the option of a full HVAC climate control system and a suspension seat.

“Improving visibility is a huge factor when looking to improve safety,” says Beningfield. “Overall operator visibility has been improved by introducing new front guards incorporating wire mesh guarding as well as lowering the seat position.

“The front top cross member has also been raised to enable the operator to view the grapple in the raised position.”
without having to lean forward. Likewise, the wiper motor position has moved to inside the top cross member to improve visibility as well as leg clearance."

He adds that improved noise, heat and vibration isolation is achieved by introducing a fully sealed and enclosed cab with doors that include sliding windows to allow for cross ventilation with fresh air, a sealed seat plate with sound insulation and servo controlled pumps that isolate the operator from pump vibrations.

"With the F-series we’ve taken safety features to the next level by offering door sensors, backup alarm, mirrors and rearview camera into the options package."

A major enhancement of the F-series is the improved serviceability through ground level service access for central greasing and ground level fuelling. "Ground level service access means that service staff alleviates the need to climb onto the frame to grease the boom," he adds.

To enable ground level filling of the fuel tank, Bell has introduced a dual fuel tank system with lockable access, with an increased fuel capacity from 75 litres to 100 litres.

To further enhance serviceability there is engine bay lighting, all daily service checks are located on the left hand side, and the operator seat swings out sideways through the cab door to improve service access.

Upping the productivity and reliability stakes

The F-series is also Fleetm@tic enabled so that owners have access to vehicle tracking, shift reports and service reminders, among other useful data, to improve the productivity of their operation.

Improved hydraulic and electrical routing protects connections from water and dust ingress, while the hydraulic system also runs cooler due to forced cooling resulting in improved longevity of components.

In line with the Bell design philosophy of providing lowest cost per tonne solutions, Kramer explains that water-cooled engines are more efficient from a cooling and fuel burn perspective.

"Customer feedback is very promising with our test units showing a 15 to 18 percent reduction in fuel burn and we look forward to conducting more of our own tests in this regard. Feedback from operators is just as positive as they prefer the F-series to our older models because of the increased comfort levels," he says.

Malawi is cracking down hard on illegal logging and 35 people – including 22 Mozambicans, 10 Malawians, two Chinese and one Portuguese-Mozambican dual national – were given sentences of between 12 and 18 months of hard labour in prison, with little chance of parole.

The crew’s tractors, trucks, motorcycles, saws and other gear were confiscated, with some of it repurposed for the Lengwe National Park where the logging took place. Valued by the court at 500,000 dollars, it is many times larger than the park’s own budget.

Last November, rangers in Malawi’s Lengwe National Park arrested the men within the park boundaries as they felled timber with the equipment brought in via an illegal road from neighbouring Mozambique. Satellite images suggest about a million protected mopane trees had been cut in just over a year in the area where the group was working.

The prosecution, on charges of logging in a national park and immigration violations, follows the passage of a new National Parks and Wildlife Act, which allows for sentences of up to 30 years for environmental crimes. According to the United Nations’ Food and Agriculture Organization, Malawi has the highest rate of deforestation in southern Africa, and is losing about 3-4 percent of its forests annually.

The case reportedly helps peel back a shroud of secrecy about how international illegal logging syndicates work in the region, with European and Chinese nationals moving illicit timber from Malawi into Mozambique and then overseas through Mozambique’s northern sea ports.

Mozambique: Three containers of iron-wood, about to be exported illegally to China, were confiscated by port authorities. The trees were felled in a special closed season and had arrived at the port with false documentation declaring it to be cashew nuts.
Invest in your fire management arsenal this season

STIHL advises that a comprehensive fire management plan, and the equipment to back it up, are essential because there is no place for under-performing and unreliable equipment when a fire breaks out.

A high powered blower is an important piece of any fire-fighting arsenal. A blower has to be carefully used and cannot manage fire-prevention on its own, but for cleaning and clearing of firebreaks it’s a winner.

The STIHL BR 700 Magnum blower is an improved, more robust version of the popular BR 600 backpack blower, which has proven its worth when ensuring that firebreaks are properly cleared of flammable debris like dry vegetation and dead leaves.

The BR 700 is an impressively powerful yet compact machine with increased blowing force that removes natural matter from hard-to-reach places such as under rocks and roots and can be relied upon to ensure that firebreaks are clear.

It is also useful for creating new firelines by blowing away flammable debris and clears dry earth mineral firebreaks quickly and efficiently. It can replace beaters on a fireline and can be used in the management of cold fires and when control is needed while clearing a line for back burning.

The BR 700 Magnum has an enhanced high air-throughput of 1550 m3/h, in conjunction with the reduced noise, lower emissions and lightweight design of the BR 600 blower (it is the lightest machine in its class).

It is also highly fuel efficient, thanks to the STIHL 4-MIX engine, an important factor when working out in the field with few convenient and accessible refuelling opportunities, especially in a crisis situation.

While the BR 700 should not be considered a single fire-fighting tool on its own, its diverse applications and benefits make it an indispensible piece of fire management equipment:

- It quickly clears areas that would have had to be cleared manually (time-consuming and labour-intensive), allowing for fewer people to be used when constructing firelines, which are constructed in less time (depending on the flammable material encountered);
- Less water is needed when constructing fire lines, a significant advantage when out in the field with limited water;
- It is more comfortable to use than hand-held tools such as beaters;
- Its improved ergonomics mean better weight distribution for greater operator comfort over long working periods, and in conjunction with other user-friendly features (the low weight, reduced noise and no emissions) helps reduce user fatigue.

“I keep my BR 700 Magnum on my vehicle, and as I often get to fires first, it is usually the first tool in my fire toolbox to be used, depending on fuel load and what is burning,” says Terry Tedder, fire protection officer for the Richmond Fire Protection Association.

“It is fantastic in grass fires to blow out flames and fires under canopy with a light fuel load. I use it to put out low flames and to create a fireline by blowing a clean break, removing all leaves and small sticks.

“The ease of constructing firelines is amazing using this product. We are recommending that all vehicles have blowers like the STIHL BR 700 as part of their collection of tools, to help combat fires.”

Improved design features of the BR 700 include the infinitely extendable and easily adjustable blower tube, the adjustable handle with toolless handle position adjustment, the automatic choke reset, which has the choke lever returning automatically on accelerating, and the easy-to-start and adjust operating system.

The convenient locking of the variable throttle trigger offers an effective cruise control, while the adjustable output pipe ensures better direction control.

The technological advancement of STIHL’s BR 700 design has created an enhanced version of an already popular and effective machine. As always, STIHL power tools come to the fore when high powered performance really matters.

STIHL recommends contacting your local FPA for more information about the use of blowers as part of a fire management programme.
**Focus on progress in the modernisation of trucking**

It is ten years since South Africa followed Australia’s lead and began the lengthy process of convincing government and the truck industry to embrace performance based standards (PBS) improvements in safety, fuel efficiency and extra payloads.

Experts estimate that 60 percent of damage to our roads is attributed to overloading and that the deteriorated road infrastructure costs the country some R7-billion per annum in vehicle operating costs alone, and trucks are twice as likely to be involved in fatal accidents per kilometre driven.

The PBS scheme is paving the way for improving heavy vehicle standards and regulations to enable trucks to move higher masses safely and efficiently. In South Africa this concept, as a pilot project, has been in operation since 29 October 2007. There are currently 165 PBS vehicles operating within the timber, mining, fuel, cattle and beer industries.

The difference between a standard rig and a PBS or ‘Smart’ vehicle is that the standard rig must conform to set dimension and mass limitations, whereas a PBS vehicle must meet certain performance standards relating to safety, stability, handling ability and driver competence. PBS aims to maximise the safe use of higher productivity vehicles by matching the right vehicles to the right roads. PBS vehicles in both South Africa and Australia need special permits because they are only allowed to operate on predetermined routes due to the state of the current road infrastructure and bigger sizes of the PBS vehicles.

This allows vehicle operators to achieve higher productivity and safety through innovative vehicle design. There are a host of strict safety and operational standards and rules that must be complied with, including accreditation of the operator by the road traffic management system (RTMS). This is an industry-led, government supported and voluntary self-regulation scheme that encourages consignees, consignors and transport operators to implement a vehicle management systems standard that contributes to preserving road infrastructure, improving road safety and increasing the productivity of the logistics value chain.

A key driver for PBS operations in South Africa is Dr Paul Nordengen, from the CSIR, who has been expanding the concept among South African operators since 2007. Speaking at Focus on Forestry 2017, Nordengen says he works closely with the Department of Transport. “It is a long-term project that, once it has buy-in from every province in the country, will have a positive impact on operations. At present only three provinces support the PBS concept – KwaZulu-Natal, Limpopo and Mpumalanga.”

The benefit of RTMS, states Nordengen, is that a transport operator investing in this system is recognised for its commitment to responsible business through a series of concessions. The most notable is the opportunity to investigate the implementation of PBS. This, in short, means that a vehicle can be designed outside the current legal limits, whilst still complying with certain safety and other requirements and can, therefore, carry heavier payloads.

The key focus areas are load optimisation to minimise over- and under-loading, driver wellness, vehicle maintenance, and productivity. The RTMS, initiated by a productivity seeking group, including David Crickmay, complies with the South African National Standard SANS 1395-1:2014. Figure 1 illustrates overall the growth of the RTMS from 74 vehicles in 2007 to 221 fleets representing over 10 000 trucks and buses in 2016.

![Figure 1: Growth of the RTMS](image)

Nordengen reports that in April this year the Department of Transport accepted the Smart Truck Programme’s rules for the development and operation of smart trucks as part of the PBS research programme in South Africa.

![Figure 2: Forestry baseline and PBS vehicles](image)
Nordengen played simulations of some safety performance factors that are considered by PBS:

- Tracking ability on a straight path: the vehicle’s total swept width while travelling on a straight path, including the influence of variations due to cross-fall, road surface unevenness and driver steering activity.
- Low-speed swept path: the maximum width of the vehicle’s swept path in a prescribed 90° low-speed turn.
- Steer tyre friction demand: the maximum friction level demanded of the prime mover steer tyres in a prescribed 90° low-speed turn.
- Static rollover threshold: the steady state level of lateral acceleration during a constant radius steady-speed turn that the entire vehicle can sustain without rolling over.
- Rearward amplification: the degree to which the trailers in a combination amplify the lateral acceleration of the prime mover in a prescribed lane change manoeuvre.
- High-speed transient off-tracking – the maximum lateral distance, or sideways distance, that the last-axle on the rearmost trailer tracks outside the path of the steer axle in a prescribed lane change manoeuvre.
- Yaw damping coefficient – the rate at which “sway” or yaw oscillations of the trailers take to “settle down”.

During question time Nordengen illustrated the overtaking time of a car travelling at 120km/hr for various truck lengths between 22 and 30m, travelling at various speeds between 80 and 110km/hr can be seen in Figure 4.
Bell and women owned SiBi Capital sign BBBEE agreement

Bell Equipment, has signed a Broad Based Black Economic Empowerment (BBBEE) agreement with SiBi Capital an entirely women owned and managed company.

Bell Group CEO, Gary Bell, says the agreement has been specifically structured to pursue real transformation through the economic empowerment of black women, who will add value to the company. It will also align the company’s business strategy with government’s economic transformation policies.

Gary says he believes this will place Bell in a unique position to be the only yellow equipment company that produces locally and will allow its customers to be able to claim the benefit of purchasing from a 30% black women owned entity. This could potentially earn them an additional four points on their overall BBBEE verification, which in turn increases their ability to bid for and win contracts.

In terms of the agreement, SiBi Capital holds 22.5% of shares in Bell Equipment Sales South Africa (BESSA), the wholly owned subsidiary of Bell Equipment. BESSA provides sales and aftermarket support for Bell designed and manufactured products as well as strategic alliance partner products in South Africa. This includes all the South African Customer Service Centres, the company’s subsidiaries in Namibia and Swaziland as well as Bell Finance, the joint venture with Wesbank.

SiBi Capital is represented by Bharti Harie and Sindi Mabaso-Koyana, who each own 50% of the entity. A further 7.5% stake in BESSA will be held by the newly formed Bell Equipment Foundation (BEF), a broad-based trust which will have black women as its beneficiaries, while Bell Equipment retains 70% ownership.

“It was necessary to create a sustainable funding structure that is not reliant on external finance. We believe this objective has been met and that we can create a long-term relationship with SiBi Capital, through Bharti and Sindi, who can add real value to the BESSA business,” says Gary.

“Both women are extremely accomplished. Bharti headed up the Corporate Funding and International Finance Departments of the Industrial Development Corporation, and presently serves as an independent non-executive on the boards of Lenmed Investments, Ascendis Health and the Mineworkers Investment Company and is also chairman of various sub-committees. Most importantly she has served on the Bell board for the past six years and is perfectly suited as a BEE partner to BESSA due to her direct knowledge of Bell, its history, vision and industry challenges.

“Sindi is a Chartered Accountant by profession. Her corporate life has included roles as CFO of Transnet, managing director of Viamax Logistics, executive partner at Ernst & Young, amongst others and has also served on a number of boards like SAA, Armscor, and Altron.

Her current board positions include Adcorp Holdings, MTN Zakhele and Toyota South Africa. Sindi is passionate about women’s development and is a founder member of African Women Chartered Accountants (AWCA). She also helped found AWCA’s investment arm as a broad based investment company which she currently chairs. She has been named one of the Top 20 Most Powerful Women in South Africa by the Financial Mail,” he adds.
Evowood mill fully operational and with no break in hardboard supply

Hardboard manufacturer, Evowood (formerly Masonite), has reopened its Estcourt mill after a protracted strike which began in March.

Louis Marais, the chief executive of Evowood, confirmed that the mill was operating and that 242 of the 733 workers who had lost their jobs because of the work stoppage had been offered re-employment on a contract basis.

“We have adopted a phased approach to the start-up due to the damage caused to equipment as a direct result of the strike. On the primary side of the mill, we are currently running one press line. The secondary side of the mill is fully operational,” he said.

This output, together with stock on hand, will be sufficient to meet all current customer requirements.

Marais said that losses as a result of the strike were substantial and were estimated to be close to R70 million. However, he said the company shareholders Black Bird Capital and Jacobs Capital were bullish about the company’s potential to recover.

This was based on a new business model and some restructuring in response to the strike.

Black Bird Capital and Jacobs Capital bought the company out of business rescue and took control in August 2016. The initial business plan that was put in place to create a sustainable long term future for the business entailed upgrading equipment, rebranding the company as Evowood and controlling spiralling costs at the mill.

After a lengthy negotiation process, the workforce signed an agreement on 25 November 2016 that stipulated a reduction of 12 percent of the total cost to company of every employee to be implemented from 1 February 2017.

The formal agreement, signed by all stakeholders, ensured that there would be no retrenchments at the mill. However, when implemented, workers brought production at the mill to a halt and embarked on a strike.

“Our business has historically always comprised production, sales and distribution units with outsourced procurement when required. Since the new shareholders took over the business, our intention was to ensure that our Estcourt Mill operated at full capacity. The unfortunate turn of events has changed our focus to a model that better supports a combination of local production at the mill and external procurement,” Marais explained.

He said that the recent disruption at the Estcourt Mill had made ensuring that customers enjoyed an uninterrupted and continued supply of quality product through an improved distribution model a priority.

“Our commitment to building business in South Africa remains firmly in place,” he said.

The Evowood procurement division has successfully secured additional product from the company’s supply partners to ensure stock is available to meet all future requirements.

“This business model, which focuses on distribution of our own manufactured products as well as insourced supply, will also allow us to extend our range of products,” he concluded.
Wood-Mizer Titan optimising edgers are affordable and efficient

The Titan T-AE range of automated edgers from Wood-Mizer match affordability with efficiency to give sawmillers an intelligent edging solution without the price tag. The local after-sales service network, readily available spare parts and training assistance, adds additional avenues to slash costs, plus the certainty of lifetime backing.

Depending on the process that is used to break the log down into boards, edging normally happens last to remove the wane and cut the board to size. Because it is a high piece-count operation, the edging stage in a sawmill can be prone to bottlenecks and inefficiency.

Feeding a manual edger is a physically demanding task and recovery drops as the shift progresses and the operator gets tired. Often the work is so slow that a bottleneck develops. Optimising edgers are designed to alleviate these bottlenecks and improve overall efficiency.

They are, however expensive and the cost can force sawmills to stick with a manual edging system despite the challenges that they present. Wood-Mizer Titan has changed the rulebook on automated edgers.

The entire range is automated and uses optical scanning technology to achieve high precision and low waste edging of boards. The system is made up of a material infeed conveyor, scanning station, centraliser, cutting head and outfeed. On the material infeed side, a transverse or in-line material infeed option is available.

The transverse conveyor has an unscrambler and cross-conveyor that separates and indexes each board for scanning. The in-line conveyor can also be fitted with an unscrambler to stage each board for scanning. The transverse conveyor transfers long and short lengths equally well while the in-line conveyor is better suited to shorter lengths.

Scanning is done in-line or transverse, depending on the material infeed option that is chosen. The computer reads the Wood-Mizer Titan T-AE optical scanning station reads the profile of the board to confirm the best volume and value recovery.
INTRODUCING:

Titan

High Speed Automated Edger Range

www.woodmizerafrica.com

Wood-Mizer Africa (Pty) Ltd
Unit 1, 20 Charlo Street, Leader Park, Stormhill,
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the profile of each board to confirm how the board will be edged to recover the best volume and value. After scanning, the boards pass through an alignment station where the board width is read and communicated to the electric servo sizing system that adjusts the width of cut before the board is cut.

The T-AE range can edge up to 25 boards per minute at feed speeds of between 0-240m/minute. The easy-to-use Windows-based computer control system can be changed to a manual PLC system with a flick of a switch. Online support allows technicians to dial into a machine to troubleshoot it remotely.

Bracken Timbers, located near Greytown in KwaZulu-Natal, commissioned a Titan T-AE6600 optimising edger in 2016 to edge the output from two of its three sawmill lines. The combined edging requirement from a two-framesaw and bandsaw/multitect line now passes through the Titan optimising edger.

George Johnson, Bracken Timbers’ director for sawmilling and charcoal reports that the results to date are significant.

“Our basic requirement was that the optimising edger should edge at least 12 six metre boards per minute. We’re easily achieving this,” says Johnson.

“We have seen a 20-25% increase in production together with a 1.5% improvement in recovery. The improved recovery is even more significant if you consider that our logs diameters (17-25cm) are small. “The manual board edging system that we previously used was a stop-start affair. The machine operator also delivered nowhere near the consistency in recovery decisions that we’re now getting,” explains Johnson.

The edger delivers improved recovery, higher output, faster processing speeds and lower operating costs all combine to improve earnings. Local after-sale support, spares parts and training assistance give the certainty of lifetime backing and additional measures to reduce costs. The range can easily slot into existing sawmill lines with flexible material handling options making this easier to achieve.
"A champion tree of the forest was felled in our compartment"

DAVID GEORGE CRICKMAY 18 July 1937 - 9 April 2017

Sadly, David Crickmay, husband to Maddy and father to Kim and Andrew, passed away peacefully on Sunday 9 April. Dave had been ill for quite some time and passed away peacefully, surrounded by his family.

Clint Lentz of Pirie Sawmills agrees with Roy Southey of Sawmilling SA that ‘a big tree was felled in our compartment’. “I think the tree to which Roy refers is a Champion tree! Dave’s legacy lives on in the business he created and within the industry he so loved. Champion trees are recorded for the purpose of history and setting records, both of which would apply to a man of such stature.”

Dave will be remembered as a stalwart in the industry, and extremely hardworking with a deep love for people. He was a man of immense integrity, who had amazing foresight and ability to see things in the most uncomplicated way. He approached everything in his life with unparalleled passion. He loved the sawmilling and forestry industries and left behind a legacy to help them thrive.

Clive Henderson describes Dave as “A true giant of the forest,” whose footsteps will be difficult to fill. “Over the past 50 or more years Dave and I have travelled the same path in the forest industry. Over that period, we formed a wonderful bond of friendship and I came to know a man who had impeccable integrity and an enormous knowledge of the industry. Despite his in-depth knowledge, he always displayed an amazing sense of humility and never flaunted his position. Anyone who asked for his guidance always received his attention with grace and dignity.”

The family man

David George Crickmay was born on Nelson Mandela’s birthday in Springs in 1937. He had a difficult childhood, so his success in life is testimony to someone who overcame difficult circumstances. He went to Maritzburg College and, in his own words, graduated with a standard six in woodwork.

After six generations of architects Dave broke with tradition and went to Saasveld College to do forestry. His close friend, Rob says “A few months short of 60 years ago Dave and I arrived at Saasveld Forestry College and, being

“Engelsmanne,” we were told to share a room - what a start to a friendship that has lasted ever since! There were 60 male students and only a few eligible young ladies in George and competition was fierce. Crickers, always “the gentleman”, stood aloof and merely chuckled at our efforts. After the Christmas shutdown, we all got back again, and there appeared on his table a small photograph of a beautiful young nursing sister with a highly starched, massive veil almost taking up the whole photo. We were introduced to the love of his life - Maddy.

“The next big chapter in our lives was marriage and families. I was his best man at Leribe and he for me in Sabie. Neither of us performed particularly well in the speech department and for the next 50 years or so we argued at length as to who had performed worst.” Dave and Maddy had two children, Andrew and Kim.

He had an incredible sense of humour and a gift for telling stories. His favourite was a kid’s story about a boy called Dacre Punt and Dacre Punt was a man who never listened. Dacre Punt lived in Istanbul which is now called Constantinople. Clive Henderson says his family remembers the many hours of patience he spent with them over the early years of their lives relating to them the exploits of the larger than life character, Dacre Punt, which had them all enthralled, and terrified, with his bedtime stories. “Dave had
a wild imagination and was a gripping story teller.” He died never revealing Dacre Punt’s identity, but everyone seems to have an idea of who it may be.

There is a Tzagithi at large

He had stints at Springbok Forestry, where he worked on horseback and eventually joined HL&H where he was a rising star and was responsible for setting up many of the mining timber mills which stand to this day. It was at Clan Sawmill, however, that Dave gained his Zulu nickname of Tzagithi (Meerkat). He may have understood it to be because of all the running around he did, but some past employees have intimated that it was because he had a knack of popping up, like a Meerkat, unexpectedly.

In his eulogy, Martin Hill of Bracken Timbers recounts how an old school friend, Ian Mackenzie who farmed next door to Clan, told him about Dave’s arrival at Clan. “It was scary stuff. There was and had been a full-on strike for several months. There were army caspirs and heavily armed police everywhere, and no work at all with the mill losing money by the day. Dave arrived, got rid of the police and the caspirs, and talked, and talked and talked some more. He sorted it out and the people all went back to work. In a matter of weeks, the loss turned into profit.”

His secret was that he loved people, from Stigenyane the mule attendant, to his army of fitters and foresters. Stigenyane and Dave shared a common love, namely pipe smoking and such was the affection they had for each other that Dave gave Stigenyane his collection of Dunhill pipes when he gave up.

“As his son, I was his shadow”, says Andrew. “I remember aged four getting into his Land Rover and ticketing labour before it was light. I did numerous stock takes with him and we had lots of adventures together. I listened to his endless stories of work and inspired, I followed him into forestry. Later I joined him in his consulting business.”

Dave believed enthusiasm is a great weapon. He wasn’t always gentle though, and stories abound of how he would arrive unexpectedly at a plantation and turf the foresters out of bed, much to the chagrin of their wives. He was tremendously progressive, colour meant nothing to him, and he moved black managers into the white village, set up liaison committees and built an enormous swimming pool in the worker’s village.

Martin Hill describes Dave as an incredible teacher. “He loved and admired Keith Hepburn, CEO of HL&H, who taught him that the secret to business is to pick the right people, make them happy and the profits will follow. So incredibly simple!” It is not money management and machines that run a business, but people. “Treat everyone with humility, dignity and respect, and profits will follow.”

Pioneering, humble and enthusiastic

In 1982, instead of moving to Johannesburg to pursue his career as a director with Hans Merensky, Dave was encouraged by his friends in the industry to start his own consultancy. It was during these years that he made a significant contribution to sawmilling and forestry in South Africa, which has been reflected by the many messages of condolence received after his passing.

Martin Hill describes how Ian Mackenzie insisted that Bracken needed Dave’s help. “We built a tiny sawmill in 1979 and because of a shortage of cash, only started cutting in 1981. For the first two years, we merely turned money over but could not show a profit. I sat waiting for Dave to arrive, and I thought he would tell me that I did not have enough money for sawmilling, no knowledge, not enough timber etc, and I knew he would be correct!

“Then suddenly this humble gentleman arrived, got us to measure the logs and calculate daily wet mill recovery, take stock at month-end to work out gate-to-gate recovery, and analyse sales. It was so simple and we began to make a profit. We were Dave’s very first client and so started the most beautiful friendship that lasted 34 years.”

Dave was extremely hardworking, possibly to the detriment of his health. In the 15 years of consulting he billed 200 hours every month. He displayed an incredible ability to simplify things and to condense both technical and common sense into written work, in a remarkably short time. Andrew says, “only Kim comes close to this ability to get through a load of work”.

He was always up for a scrap and ready to take on everyone. He really was a pioneer, as the industry at that
stage had almost no contractors or independent businesses and one got the sense people were expecting him to fail. But he was always courageous and fearless when it came to doing the right thing. He was also completely without selfish motive and Patrick Kime from NCT says it was very important for Dave to make a difference.

Dave adored his clients, especially his first 15 sawmills, and loved the people. He got involved in the agony and the human intrigue of many of these independent businesses. Of these mills only one of his mills ever closed and that in an industry that lost 70% of its mills during that time. As a result, people respected him. The fact that 80% of the industry allowed his business to have their income statements to benchmark them in the Intermill Comparison is a testament to the trust that people had in his integrity. Solly Tucker MD of York at the time said “Dave Crickmay is the only guy in the industry who knows the colour of our underpants, and won’t tell anyone”.

Unfailing belief

“Probably one of David’s greatest strengths, apart from the support from his family, was his unfailing belief and devotion to his Christian belief,” says Clive Henderson. “He was a man who walked in the path of God and from this he gained tremendous strength and guidance.”

Take a moment to read the Founders Creed of the business. Central to it is, “When faced with a difficult decision, ask what would Jesus do?” That creed summarises his philosophy and continues to guide the company. In the late 1980s, he and Maddy started the Silent Minute initiative that drew together black and white churches in Pietermaritzburg for the first time, where the City bells chimed at midday for many years in a call to prayer for the country.

Kim describes her father as a man of courage, integrity, humour and zest. He loved his friends and family deeply and was fiercely loyal. “We will always remember him asking ‘so what value did you add today?’ He did enough value-adding for all of us. How privileged we were all to have him touch our lives. He will be remembered with fondness, respect and deep love.”

Maddy and Dave were married for 56 years and her dedication and tremendous self-sacrifice in nursing him intensively for the last 10 years is highly admired. The two loved each other completely, and even towards the end the mention of her name would brighten him up.

Martin Hill ended his eulogy with: Go well my friend, we will miss you but never forget you

Hamba kahle mngani wami, sizokukhumbula!
• Overcharging is as bad as cheating. Always ensure that ‘we are worth our salt’ and charge accordingly.
• We will always be rewarded for our deeds, but not our greed. We should strive to make super profits, but our mission statement accommodates expanding our horizons for the benefit of the industry, our country, our world, but not our greed.
• We make mistakes when things are going well, not when our back is to the wall.

Legacy of Intermill Comparison and Lumber Index continues

Crickmay & Associates was established by David Crickmay 1982 to offer a benchmarking service to a handful of independent sawmills by comparing their financial results. Today the company benchmarks approximately 70% (based on production) of the formal softwood sawmills in South African.

The tool used to benchmark the sawmills, the Intermill Comparison, is produced on a quarterly basis and compares the participating mills’ key costs and sales information on a Rand per cubic metre basis, against the most profitable mills. This helps mills identify areas of opportunity. The Intermill results are also compared on an international basis every two years

Martin Hill of Bracken Timbers says we were Dave’s very first client and so started the most beautiful friendship that lasted 34 years. Later he introduced us to the Intermill Comparisons which Mandy Alipass runs.

“This Intermill Comparison enables us to compare costs in many different areas with those of large and small mills, and compare selling patterns to identify weakness. We could also compare all the sawmills in the Southern Hemisphere. We established that our unashamedly labour intensive mill compared quite favourably with the highly mechanised large mills. We could, for example, see that John Rance’s Rance Timbers was the most profitable mill and we all aspired to follow him.”

Martin describes the Intermill Comparison as ‘Dave’s brainchild’. “He helped improve the profitability of all South African sawmills, but he was not only a sawmill expert. He helped us buy farms in competition with Sappi, Mondi, and HL&H, etc by doing valuations overnight and helping us devise schemes to satisfy the most discerning seller.

Crickmay & Associates produces a monthly publication, known as the Lumber Index, for the sawmilling industry, which provides aggregated information to sawmills, to assist them in identifying areas in which they need to improve their efficiency to help them remain competitive in national and international markets.

Mandy Alipass, who also produces the Lumber Index at Crickmay says “Those of you who knew Dave well, will remember him as a stalwart in the industry, extremely...
Great trees give way to young trees

By Jayce Lane

Many of us have walked in a natural forest in the Drakensberg and stood underneath the canopy of a large, magnificent and awe inspiring yellow wood tree. We have mused to ourselves what great stories this tree could have told, or how many tremendous storms it has survived in this harsh craggy mountain environment.

Whilst pondering how it could have etched out an existence as a young sapling hundreds of years ago, it is under the ever-enduring crown of the same very great tree, that you would find new trees taken root. It appears that these young trees have been shielded, by the great tree, from the harshest of storms, heaviest of snowfalls, with just the right amount of water and sunlight filtering through for them to thrive.

Then a person reflects upon the fate of the great old tree; for as these young trees grow, the very singular great tree, appears to step back allowing them to reach up to the sky and spread their own crowns. As is with most things though, the tree that stood once so great, recedes back and through the ravages of time returns to the earth from once it once arose.

This humble analogy, inadequately describes the life of David Crickmay, founder of Crickmay & Associates, but through it the young trees that now stand in his place and the industry that you were so fond of, honour you with it.

GOOD TIMBER

A Poem by Douglas Malloch

The tree that never had to fight for sun and sky and air and light, but stood out in the open plain and always got its share of rain, never became a forest king, but lived and died a scrubby thing.

The man who never had to toil to gain and farm his patch of soil, who never had to win his share of sun and sky and light and air, never became a manly man, but lived and died as he began.

Good timber does not grow with ease, the stronger wind, the stronger trees, the further sky, the greater length, the more the storm the more the strength.

By sun and cold, by rain and snow, in trees and men good timbers grow. Where thickest lies the forest growth we find the patriarchs of both. And they hold counsel with the stars whose broken branches show the scars of many winds and much of strife.

This is the common law of life.
IT and wood treatment meet with Lonza's Tan-Treat

When it comes to performance excellence, cost savings on consumption and efficiency improvements, Tan-Treat Quality Support System has made its mark by introducing an exemplary integration of wood treatment with information technology.

Uniquely conceptualised by Lonza Wood Protection, Tan-Treat is a first-ever IT product that provides treaters with a user-friendly record keeping system that adds value beyond the supply of Tanalised® treated timber products.

With no comparable product on the market, Tan-Treat has quickly gained momentum in just two years, with 32 users across the wood supply chain already subscribed and enjoying its benefits.

“This ‘quality through technology’ product is making a positive impact on customers’ business operations as well as the industry. It also forms an integral part of Lonza’s commitment to building long-standing customer relationships through holistic value-added services,” says Doug Sayce, general manager of Lonza Wood Protection.

Being chemical specialists, Lonza turned to First Digital (a First Technology company) for expert IT development assistance that would ensure that Tan-Treat meets the same global standards of all Lonza products.

“When Lonza introduced the Tan-Treat concept to us, we were immediately excited about getting on board in order to bring such an innovative concept to fruition for the wood treatment industry”, says Peter de Jongh of First Digital.

De Jongh explained that one of the biggest challenges they faced was the enormous amount of mathematical applications that needed to be developed into a user-friendly format. Another challenge that had to be overcome was creating an off-line capability for Lonza in order to assist customers in remote locations who do not have internet access.

“The initial production took around eight months to complete, and was followed by a further three months of enhancements to iron out any possible glitches,” says De Jongh. “Throughout the development process we received extremely knowledgeable input from Lonza, who had a clear-cut understanding of what was required from a wood treatment and IT perspective,” he adds.

Tan-Treat was launched in 2015 and the benchmark was set by flagship customer Tekwani Sawmills. The system was installed to check efficiencies across three different treatment sites and immediately received a positive response.

Henk Muller, production manager at Tekwani, says that since working with Tan-Treat they are now able to treat closer to their Hazard Class H2 mark, resulting in improved quality output in order to meet SABS and Lonza standards.

He adds that being able to treat more accurately over a one-year period made a big difference in consumption and cost saving for Tekwani.

“We are also enjoying faster turnaround times for our stock reconciliation. What used to be a time-consuming exercise is now streamlined and more accurate, as all calculations are done by Tan-Treat, which eliminates the cost of human errors. With vital and accurate information now at our fingertips, we can immediately detect any errors in our stock reconciliation.”

“I would highly recommend Tan-Treat and the experienced Lonza team, who provide a knowledgeable hands-on approach to ensure that we receive all the support we need,” says Muller.

According to Lonza, they are excited about the success and growth of Tan-Treat in the South African wood treatment market, and are now looking abroad for export opportunities as well.

“Zambia is one of our prominent African export markets and we believe that the same Tan-Treat quality benefits and cost savings that have been experienced locally will be enjoyed by our Zambian customers too,” concludes Sayce.
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Brits Poles SA: in pole position...

Brits Poles SA is a leading supplier of poles, timber and hardware, currently running two CCA treatment plants and one Creosote treatment plant at their pole yard in Brits, in the North West Province.

According to Brits Poles SA director, Werner Hattingh, the company has thrived by continuously exceeding industry standards, not only with the outstanding quality of their products, but by going the extra mile in terms of customer service.

“You business is only as good as the stock that you have on hand, and the level of service that you deliver to your customers,” says Hattingh. “By ensuring that we buy only the very best quality raw materials, we cover the first aspect very well.

“We source from a number of plantation owners and we are able to secure top quality wood. We have also been procuring our CCA from Timberlite Products since we started in 1996. They deliver excellent service and first rate products.

“Our highly knowledgeable sales team members are seasoned and experienced with strong functional and technical expertise and hands-on experience, ensuring that we are able to prove a top-notch service to our clients.”
The company has been a leading supplier of both treated and untreated poles for the past 22 years.

Occupational health and safety of plant personnel, and the prevention of environmental contamination around timber treatment plants is one of their highest priorities.

According to Hattingh, this is something that they have always taken very seriously.

“First and foremost is the safety of our personnel,” he says. “We conduct industry set-out health and safety training for all staff and we have a very strict protocol. We make sure that our staff members know how to conduct their day to day activities in a safe and efficient manner and we strictly enforce our safety procedures.

“We also make sure that there is no environmental contamination taking place by enforcing strict housekeeping measures as set out by industry standards.

“This ensures that we comply with all the relevant health and safety regulations, and the focus on housekeeping makes for optimal functionality in the yard, which continually improves our operational efficiency.”

Brits Poles SA prides itself on the exceptional quality of all their products. “All our transmission poles go through an incredibly strict grading process before being assigned to the next step in the process.

“Once the poles have been graded, separated and marked according to length and diameter, they are
separated according to orders, dried in their specially designed drying kiln, before being sent off to the relevant treatment plant.”

Brits Poles SA is especially proud of the Bosman Dryers designed drying kiln that allows them to attain optimal moisture levels in an oil heated system.

The company currently runs one Creosote treatment plant, and two CCA treatment plants. Here the poles are subjected to an equally strict pressure treatment.

With a huge customer base, not only locally, but also in many African markets, Brits Poles SA has quite a reputation to uphold and thus insists on extensive and continuous testing to ensure that their products are as good as they can get.

“Over and above the various regulated standards that we manufacture to, there are some clients that have set their own standards when it comes to quality, and as with everything that we do at Brits Poles SA, our mission is not only to meet these standards, but to exceed them every time.

“All relevant management at Brits Poles SA therefore take a personal interest in the drying, treatment and verification processes to ensure that our products are the very best that there is.”

Asked about problems facing the industry today, Hattingh reiterates that your business is only as good as your stock on hand. “Ensuring that you have the very best in raw material on hand at all times can become challenging at times.

“An operation like this is very reliant on the availability of raw materials that are ready to be processed. You must ensure to have capable timber suppliers that can supply the volume of timber when needed.

“One problem that has cropped up in recent years, is theft of the raw materials from timber growers. It is becoming more and more difficult for the farmer to keep the logs for the specified period before they are ready to be transported and processed, because of theft.

“The cost of security measures that farmers now need to take to keep the logs safe is on the verge of driving the price of timber up even more.

“Transporting logs with high moisture content also runs up the costs as you are now transporting water. These logs are much heavier, thus you are able to transport less, but at a higher cost.”

An operation like Brits Poles, running 24 hours per day, requires a lot of planning in terms of logistics, not only in the yard itself with the, but also in terms of receiving raw materials and dispatching finished products.
“It is a huge undertaking to run the logistics involved in transport as well,” says Hattingh. “Specialised trucks and equipment available today means that these transport companies are able to provide a better service and be more reliable and cost effective when it comes to transport. I rather leave it in the hands of the professionals.”
Brits Poles: exceeding expectations

When you treat in excess of 270 cubes of timber per day you have to find ways of streamlining your processes to ensure that your operation runs as smoothly as possible.

Over and above the sheer task of handling the logistics involved in dealing with such startling volumes, there is the ever present worry about ensuring that the quality of product leaving your premises lives up to the standards set out by the industry.

According to Brits Poles SA director, Werner Hattingh, this is no problem when you ensure that all your processes are in place and every staff member is clear about what he needs to do.

“We do not compromise on quality – ever,” says Hattingh, adding that, if anything, they strive to not only meet, but exceed every quality standard with every piece of timber that leaves the yard.

Brits Poles SA currently operates two CCA treatment plants, and one Creosote treatment plant, supplying top quality transmission and structural poles to the local market as well as to numerous international markets into Africa.

“Part of this business is keeping your finger firmly on the pulse of the industry to try and anticipate where it’s going and what the trends are. Today the company is exporting high quality CCA and creosote treated poles all across Africa and they also have a significant market share locally.

“The CCA poles are mostly for export, which is a significant part of our business,” says Hattingh. “CCA treated poles are perfect for the higher humidity, more tropical climes of many of the African countries, while the creosote treated poles, being more resistant to fire and better suited for our dry climate, is ideal for use in South Africa.”
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Brits Poles implement a strict treatment regime that has helped the company over the years become a preferred supplier for many local and international companies.

“Our company motto is to exceed every expectation set to us, in terms of the service that we render and also in terms of the quality of the product that we deliver. To this end, every pole is treated according to strict Industry standards. Brits Poles SA undergo two voluntary inspections per month by the South African Technical Auditing Service (SATAS).
“It’s all about the quality,” says Brits Poles SA director Werner Hattingh, when speaking about what it is that sets his company apart from the pack. “Not only the quality of the product that you provide, but also the quality of the service.”

Brits Poles SA has been in the business of supplying top quality transmission and structural poles and other timber products for the past 22 years and supplies both the local and export markets.

“A big part of that service,” says Hattingh, “is the peace of mind that our customers have, knowing that every product that leaves this yard complies with relevant specifications.”

Between the very stringent grading process employed by the company and a state-of-the-art Bosman drying kiln, Brits Poles SA ensures that their products are 100 % to specification.

“Once the raw materials (poles) have been graded by our highly trained staff, and separated into the different classifications, it is off to the Bosman drying kiln that was specifically designed for the purpose of drying Eucalyptus.

“The system makes use of an oil heating system and high speed fans to ensure that the heat is spread evenly and drying takes place effectively.”

The timber is dried to the point where it contains 25 percent average moisture content before being sent off to either of the CCA treatment plants, or the creosote treatment plant, depending on the orders at hand.

“The kiln was specifically designed by Brits-based Bosman Dryers for the drying of Eucalyptus,” says Hattingh.

The fact that the effective drying of the timber is so essential to the process also prompted the team from Bosman Dryers to install an additional feature that has become an indispensable tool in constantly monitoring the drying process to ensure optimal results.

“One of my favourite things about this system is that I can log into the system at any time via my cellular phone, and check that everything is going well. The system was set up to send notifications to my phone, which has proven to be an awesome tool in monitoring the process,” says Hattingh.
Bosman Dryers specialises in the manufacture and supply of industrial heating and drying systems to clients in the timber, tobacco, chicken and fruit industries across southern Africa.

Their comprehensive range of timber drying kilns, tobacco driers, fruit driers and heating solutions for chicken industries is manufactured and pre-tested at their production facilities in Brits. They also specialise in kiln site layout, delivery and complete installation.

With thirty years experience in the field of heating and drying and a reputation for superior quality and service, Bosman Dryers has established a reputation as a drying kiln supplier of choice, with unrivalled expertise in turnkey drying plant installations.

The drying part of the operation is central to being able to deliver the top quality product that Brits Poles’ customers have come to expect.

“There are strict regulations in place with SANS754 when it comes to the drying of transmission poles.

“Our mission has always been to not only meet expectations, but to always exceed them. So with that in mind, we carry out extensive testing to ensure that every piece of timber that comes out of the kiln is perfectly prepared for the next step in the production line.

“When you have a reputation to uphold, not only locally, but also among your international customers, it is of the utmost importance to ensure that you are consistently achieving the levels set out per specification,” says Hattingh.
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Understanding Venting

By Henco Viljoen of TimberSoft

Working on a lot of kilns, it is staggering to see the lack of understanding about the heart of the timber drying operation – namely venting and humidity control.

Schedules are set up roughly to follow prescribed drying practices and kiln manuals. We have seen some schedules and kiln controls that do not follow any logic or make any sense.

Often, to try and speed up drying, an approach of higher dry bulb and bigger depression is followed. This is not always the way to go. Examining the process graphs of kilns gives you a lot of insight into how much interest there is in the drying operation, and how much understanding there is of drying.

To understand venting and humidity control, one must understand the purpose and the dynamics of what happens inside the kiln when venting. The main purpose of venting is to get rid of excess moisture inside the drying chamber by getting the wet bulb temperature in line with the vent set point.

The effect open and closed vents has on air flow inside the kiln is seldom realised. While vents are open, the path in and out of vents becomes the path of least resistance and ‘steals’ some of the air flow through the timber stack.

Gradual decreasing vent set point
We have measured that on some kilns, up to 35% of the air volume flow through the stacks is lost through the open vents. When vents are closed and full air flow is re-established, the function of closed vents is to ensure full energy transfer from the heat exchangers to the timber. This is as essential for efficient energy usage as venting is for getting rid of excess moisture.

It is very important to note that only when the basics like stacking, loading and especially baffling, and wet bulb maintenance are done correctly, will the context of this short article make sense.

The effect of bad baffling on venting can wreak havoc on control. Hot dry air not going through the timber, but only over the wet bulb, will give a very low wet bulb reading.

When the vents do open, air flow through stacks can be reduced to zero, and because the wet bulb is then out of the path of air flow, its true reading becomes even more suspect. The wet bulb reading is then affected by radiation and conduction, and not the effect of evaporation, thus giving a higher reading. If you can’t trust the wet bulb reading you have zero control.

When observing a kiln in operation, incorrect vent / wet bulb settings are often shown by very long periods of open vents or very long period of closed vents. A correct wet bulb / vent set point at a specific point in drying is one where vents remains active, in other words, where there is a balance between getting rid of moisture, and maintaining good energy transfer to the timber.

Vents closed for minutes or hours often means there is not enough energy to get moisture out of the timber to raise the wet bulb temperature sufficiently, or most often, the wet bulb depression was drawn too early, drying the surface out too much and locking moisture into the core.

This increases drying time and downgrade, and is normally (incorrectly) counteracted by increasing the wet bulb depression even further. The correct course of action would have been not to draw the depression too early and to do it more gradually.

Vents staying open for long periods mean the evaporation rate at that energy transfer rate is greater than the kiln’s venting capacity. Either vent size needs to be increased, or dry bulb temperature needs to be lowered, or vent set point can be increased to match wet bulb temperature.

What about proportional venting?
From a control point of view, to control the wet bulb temperature more accurately, proportional venting makes sense, however, this comes at the price of constant air flow loss and more energy usage compared to open/close venting.

The rate at which proportional venting reacts to wet bulb or humidity above set point is often also very slow, indicating a lack of understanding of humidity control on the part of the kiln controller programmer. It also increases drying time and energy usage. Install a new kiln with proportionate vents and the next big capital expense is a new boiler.

In the end, the key is balance. Balance air flow, energy transfer and venting capacity within the kiln’s constraints and the safe drying rate of the timber species you are drying. If you need help with balancing your kiln, contact us.

If you can’t trust the wet bulb reading you have zero control.

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Occupational qualification development for kiln operators is making progress

The process of drying timber is more complex than simply stacking timber in a kiln and flicking a switch. It demands well trained drying personnel with an elevated level of skills and knowledge to dry timber economically and efficiently and to the specifications required by the markets.

Kiln drying courses are currently available, however these courses are not recognised by the SA Qualifications Authority (SAQA), the quality of the training is dependent on the provider, and they do not always ensure the proficiency of the trainee. Certificates of attendance do not help to advance the operators in their careers.

Some 15 years ago the South African Lumber Millers Association (Salma) began to prepare a South African qualification, a National Certificate in Wood Technology: Lumber Milling (Lumber Drying). For various reasons, including a lack of funds, this work was not completed. The industry body, Sawmilling South Africa (SSA), continued lobbying for the occupation, Dry Mill Operator, to be recognised as a trade, and when the opportunity presented itself, the Fibre Processing & Manufacturing Sector Education and Training Authority (FP&MSeta) agreed to be the qualifications development partner.

The Seta received the go ahead from the QCTO, and mandated SSA to manage the project and develop the qualification. In line with the official skills development process SSA and FP&MSeta appointed Teboho Motseki to be the qualifications development facilitator (QDF). Diane Randall was appointed by SSA to project manage the process.

Randall explains that an occupational qualification is associated with a trade, occupation or profession resulting from work-based learning. It consists of knowledge, practical and work experience modules that are internationally comparable and provides the required drying skills at an acceptable standard for the industry.

“The new kiln operator qualification will open the door for learners with a matric certificate to enter the field of timber drying, whether in the sawmilling, carpentry, furniture or in the general timber industry. There are about 100 sawmills that could use at least one qualified kiln operator on their staff,” explains Randall.

“There are also hundreds of small to large joinery and solid wood furniture manufacturing companies in the country that will benefit from the knowledge and expertise of a kiln operator. Qualified kiln operators will be able to further develop their careers in the timber industry.”
The qualification development process was facilitated by Motseki with the assistance of Randall. In a transparent process a Working Group was chosen to:

- Participate in scheduled work sessions to build the qualification content
- Provide industry feedback and answer questions. They must ensure that the qualification addresses current and future skills in the occupation
- Bring industry comments and changes to the curriculum back to the working group;
- On behalf of the sawmilling industry recommend that the final qualification be submitted to the QCTO for verification

Randall reports that the workshops were held in KwaZulu-Natal from February to July 2016. After each workshop the documents developed were widely circulated for comment. Comments received were analysed by the working group and the curriculum documents were amended accordingly.

“The documents were verified by the QCTO on 17 February 2017. Comments received from members of the industry were most positive and the final documents have been lodged with the FP&MSeta for approval prior to submission to the QCTO.”

Roy Southey of SSA thanks the working group, in particular Di Randall and Dr Peter Stöhr, and industry team members (both physically and digitally present), for their valuable time and expertise.

“They gave willingly and unstintingly over the past year, and each workshop produced work of the highest quality from experts in the industry; all passionate about the development of the qualification,” says Southey.

When the QCTO gives the go ahead learning materials and assessment tools have to be re-developed and aligned with the new qualification. Once the qualification has been registered with SAQA, SSA will implement a Pilot Programme for the first intake of learners for the Dry Kiln Operator qualification.
Specifying for timber construction

When specifying for timber construction, it is imperative to make a thorough study of elements such as specific designs, site conditions, the National Building Regulations as well as timber quality, to ensure a successful project. The Institute for Timber Construction South Africa (ITC-SA) weighs in.

In South Africa, under the Building Standards Act (Act 103/1977 as amended) and the National Building Regulations (NBR), there are only two legal methods by which to design and construct timber structures.

These are:

Timber framed structures built in accordance with SANS 10082 – Code of Practice for Timber Buildings. This Code of Practice outlines the ‘deemed to satisfy’ requirements for the design and construction of timber framed structures.

- Timber roof trusses manufactured in accordance with Part L Roofs of SANS 10400 ‘The Application of the National Building Regulations’. This standard outlines the ‘deemed to satisfy’ requirements for nailed and bolted trusses and specifies timber sizes along with the number of nails and bolts as well as the accepted truss shape.

- By engaging the services of a professional engineer (as required in Part B of the National Building Regulations) who would work in strict accordance with SANS 10160 ‘Loading Code’ and SANS 10163 ‘The Structural Use of Timber’.

Timber framed structures that comply with SANS 10082 are deemed to satisfy the National Building Regulations and SANS 10400, which covers conventional construction methods and processes. Only deviations from the specified design and construction requirements of SANS 10082 will demand engineering intervention and the provision of a rational design.

Designing for public buildings

Approval has, in general, been given by municipalities to prefabricated truss fabricators who use a suite of rational design programmes supplied by ‘system suppliers’ to design roofs up to 10 m in span for non-public buildings. All of these system suppliers have been accredited and approved by the Institute for Timber Construction South Africa (ITC-SA).

All larger buildings and those to which the public has access are to be designed under the supervision of professional engineers applying rational design criteria to satisfy engineering first principals.

Engineers who have access to engineering design software can use these design programmes to satisfy the rational design requirements. Timber structures designed by a competent person in accordance with Part B of the National Building Regulations are not limited to the size, height, span, pitch and geometric configuration of structures as specified in SANS 10082 or Part L of SANS 10400.

Timber grading and treatment

The ITC-SA works closely with the Technical Committees of the South African Bureau of Standards (SABS) on grading and treatment specifications for structural timber. This includes design codes and standards and matters affecting the National Building Regulations.

The ITC-SA has also instituted a Certificate of Competence scheme for timber frame builders and truss fabricators (truss plants) who design, manufacture and supply prefabricated nail-plated trusses.

Stringent auditing of both the professions’ operations and key personnel is done before the awarding of such certificates of competence. This is an assurance of quality on timber structures for both the specifier and general public.

Timber quality

All timber used in a structural application should be structural South African pine that complies with the requirements of SANS 1783-2/1460/10149 and bears the full standardisation mark.

Timber used for roof battens should comply with SANS 1783-4 and should also bear the full standardisation mark. Timber used for the construction of timber structures on site must be ordered in the dimensions in which it will be used and should not be re-sawn into smaller cross-sectional...
IS YOUR ROOF LEGALLY COMPLIANT?

Unless a roof is constructed in accordance with the ‘deemed-to-satisfy’ rules of the National Building Regulations, a rationally designed roof by an engineer is needed for a roof to be legally compliant. The design will be considered a rational design and by law (NBR Regulation A19), it must be signed off by the registered professional engineer who is responsible for the design and who was duly appointed by the owner.

For more information about acquiring an A19 certificate for your roof or to find an ITC-SA-accredited Inspector member near you, visit www.itc-sa.org.

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sizes on site, as this will cause the grade, strength and dimensional tolerances to change.

**Timber specification**

The various grades of timber are defined by different strength properties and allowable design stresses. The grades commercially available are: S5, S7 and S10. (Note: there is a limited availability of grade S10.)

**Timber treatment**

In certain magisterial districts in South Africa, it is illegal to use timber which has not been treated against biological attack for structural purposes. Treatment can be completed using either CCA or Boron in accordance with SANS 10005 ‘Treatment of Timber’.

**Storage of timber**

Structural timber stored on site should be stacked on level ground on bearers and adequately protected against the weather by being covered with a waterproof material.

Air must be allowed to circulate through the timber stacks and strapping around bundles of battens should not be removed until the battens are to be fixed, to prevent excessive warping.

**Factory engineered trusses**

A network of prefabricated timber roof truss manufacturers can be found throughout South Africa. These fabricators operate under license to suppliers of nail-plate connectors and use computer design programmes devised by professional engineers.

When placing orders with a truss fabricator, or when a quotation is required, the fabricator must be provided with the following minimum information on a detailed drawing:

- Overall span of roof
- Eaves overhang
- Pitch of roof
- Cantilever distance (if any)
- Truss spacing (can be optimised by the truss engineer) normally 760 mm for concrete tiles and 1100 mm for sheeting
- Roofing materials plus any special loads (e.g. solar panels)
- Ceiling materials plus any special loads (e.g. air-conditioning)
- Geyser position and capacity
- Hatch openings, size and position
- Special eaves details
- Other details which may affect the design
Wood waste fuels joinery company’s production process

The largest custom windows, frames and doors manufacturer in Holland, HEBO Kozijnen in Hengevelde, has installed a KARA Energy System plant to convert its dry waste to fuel for its production process.

Norbert Kuipers, director of HEBO Kozijnen says that when they embarked on the search for a supplier to replace its old bio-energy plant they knew what they were looking for. They needed a solution that would integrate the latest innovations and technical knowledge into a modern combustion process that is easy to operate, needs less maintenance and delivers longer operating hours.

Hebo Kozijnen is a manufacturer of standard and customised solid wood and aluminium doors and windows in the Netherlands. All products are pre-fabricated and delivered as complete units. Customers can choose from an enormous range of handles, cylinder locks, automation motors and sensors, screens, burglar guards, styles, colours and other accessories to customize their products.

The company uses strictly hardwoods, usually meranti, purchased primarily from Malaysia and Indonesia, for its products. “We don’t use softwoods because of the climate. The material will only last five years,” Kuipers explains.

Kuipers says the prevailing preference for window sizes seems to be that bigger is better. “In Holland, you typically see big windows in the houses. Also, you’ll find when they construct houses, they sometimes make the basement, put up the frame for the house, add the windows and then put up the brick,” he says.

Make wood waste work for us

“We decided it is time to become less dependent on fossil fuels and to make our waste work for us by using it to...”
generate bio-energy,” says Kuipers. “This provides us with cost saving benefits and is absolutely worth the investment, even for a company of our size.”

The waste that is released during the production process is the fuel to generate renewable energy. This waste is directly extracted at the production line and consists mainly of wood shavings and wood dust and is known as very dry biomass.

The KARA system extracts the wood waste and stores it in large storage bunkers. HEBO can save the waste in summer and use it in winter. From the storage bunker the biomass runs automatically and by means of a scraper chain in the direction of the combustion chamber.

Once at the combustion chamber, the biomass is completely burned by means of a hydraulically controlled grating with automatic ash removal. KARA has equipped the furnace with a water pipe cooling screen which is placed in the wall of the combustion chamber. This solution provides additional security when using very dry biomass and ensures a longer life of the walls of the furnace.
KARA’s bio-energy solution:

- Is optimally integrated in HEBO’s production process
- Is an 850kW installation
- Generates 110°C hot water to heat the production facilities and offices
- Heats the spray booths to maintain the high quality of the painting process
- Needs only one or two controlled stops annually, a considerable improvement on their previous bio-energy solution
- Helps the company save disposal costs
- Reduce its dependence on fossil fuels in terms of availability and energy costs
- Contributes to HEBO’s corporate social responsibilities
- Has produced an attractive subsidy contribution

To complete this bio-energy system and to meet the most stringent emission and environmental requirements, KARA installed an electrostatic filter for flue gas purification. This is particularly suitable for all biomass fuels, has a low energy consumption, has a low resistance, and reduces operating costs.

Wedding dresses to joinery

When HEBO was launched 40 years ago, it specialised in selling wedding dresses. Then ten years later it moved into the construction market, and in the mid-1980s it started to manufacture custom windows and doors for residential and commercial applications. The move proved successful. Today, HEBO claims to be the largest custom window and door manufacturer in Holland, employing approximately 100 people in its factory. The solid wood doors are largely fabricated from meranti and the process is fully automated under the watchful eyes of qualified artisans.

These artisans ensure that the production process runs smoothly and that machine settings and raw materials are correct and that maintenance programmes are followed. They also perform final assembly and quality assurance operations.

A variety of machines are used in the plant. Sliding doors, for example, are first machined on an SCM Superset 27 moulder, then conveyed automatically to an SCM Windor 60 for tenoning, and on to another Windor 60 for profiling. The company has a DMC Topset widebelt sander which is used to sand the door core.

Stiles and rails are machined on a System 5 double-end tenoner. The process for manufacturing the windows is: tenoning on the System 5, then drilled, and sent on to a P230S profiler with 20-inch-long, left and right, vertical stackable spindles, followed by a second P230S profiler also with stackable spindles. The sash is assembled and then the outside edges of the sash are profiled using an Kontur machine. The machines were all purchased from SCM Group. Leitz cutting tools are used in the shop.
A golden year for RMS Shopfitting

Cape Town based RMS Shopfitting is celebrating its 50th year of service excellence to its clients, and the provision of jobs for its staff of 100 people, some of whom have retired after 40 years, while others have been with the company for more than 30 years.

The managing director is Andrew Hishin who is the son of Mike, the founder of the company. In an interview with Wood SA, Andrew explains that to be successful it is essential for a company to have a positive outlook, and good attitude and relationship with each client, and, importantly, it must be open to new challenges and opportunities.

Andrew walks the talk, and as we speak he is preparing to fly to Germany to attend the world’s largest wood and wood products processing industry trade show, Ligna, to experience modern technologies and benchmark new ideas. “We believe the only way to serve our customers is to be able to innovate and offer world-class products and services, and we do this by going to trade shows such as Euroshop and Ligna,” he explains.

RMS Shopfitting’s client list includes such local brands as all Edgars and Guess stores, MTN stores, Truworths Group, Green Cross stores, Nedbank, Due South, and international brands such as all Hamleys, Café Coton, H&M stores in South Africa, Crystal Towers Hotel and hotels in Kenya, Tanzania.

It all began in 1967 when astute entrepreneur, Mike Hishin, decided there was room for a third shopfitting company in Cape Town. He approached potential partners and RMS was soon in business. He built it up and, with his business partners, listed the company on the stock exchange in 1987 – which unfortunately was bad timing - and things took a turn for the worse. In 1990 research conducted by Andrew and his brothers Guy and Nick, found that the market still associated the RMS name with quality products and service. They followed in their father’s footsteps and re-established the business in a 2000 square metre factory in Sunrise Circle, Cape Town.

“We pride ourselves in our attention to detail and understanding of retail markets spanning sports and lifestyle, hospitality, house and leisure, fashion, consumer electronics, banking, healthcare and much more,” comments Andrew. This soon led to the company outgrowing its premises and it relocated to its present location in Maitland, which is more than three times larger.
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“Project management is an integral part of our service offering and enables us to manage the process from start to finish, ensuring that our clients are 100% satisfied,” Andrew explains.

He says the initial stage of any project involves meeting with the client and making sure that the brief is fully understood and expectations are managed. This often requires travelling to clients, who may be located overseas, in Africa or in any one of the nine provinces of South Africa. Once a job has been confirmed, planning and production begins in the factory and if necessary tenders are requested from its many loyal contractors.

“We have a reputation for quick turnaround times and quality workmanship due our professional project managers and integrated manufacturing process,” states Andrew. The vast and modern factory covers an impressive 7000 square metres, which enables RMS to manage every job from the design and planning stage, which typically includes technical drawings, bills of materials, procurement of materials and fittings, cutting lists, CNC programming, and the optimising of materials for efficient use and processing.

The company used to offer a drawing service, but this has fallen away because today most shopfitting clients have their own design teams. Andrew smiles as he describes how 30 years ago clients such as Edgars would post their plans and it would take four weeks to quote and post it back to Edgars. Now precise planning takes place immediately.

The machine shop presently consists of an Austro supplied Selco EB70L Active beam saw, Fravol edge bander, Biesse Rover B4 CNC machine, Biesse Active 350 panel saw and the Weinig Unimat 300 moulder, as well as the usual range of solid wood processing cross cut saws, surfacer, thicknesser, and spindle moulder. There is plenty of space for larger machining centres and this is one of the reasons for Andrew’s trip to Ligna.

The assembly department is managed by 11 teams of skilled craftsmen who are responsible for the complete production and assembly of the finished product. Quality
The Twin Pusher, an exclusive patent for all Biesse panel saws, consists of two complementary pushing devices. This NC controlled beam saw series contains technology solutions that make it suitable for small to medium sized companies, thanks to its easy to use controls, axes speed and precision, increasing productivity by up to 60%.
finishing is of paramount importance and the paint shop, housed in the main factory, is responsible for the sanding and spraying of all jobs manufactured at RMS. The company recently invested in a second-hand Venjakob automatic sprayline and is running test products to determine when to use it optimally. When the products reach dispatch, they are quality checked, cleaned, and packaged, ready for collection by the assigned transport company.

Andrew says that an area where RMS is receiving increasing praise is its installation service. “Our project management is spot-on and our teams work around the clock to ensure that we meet every deadline. The site teams are trained to work under the most challenging conditions including around other contractors while ensuring that good housekeeping and safe work practices are attended to at all times.”

The future looks good for RMS and Andrew says the constant changes brought about by new raw materials and manufacturing processes such as the trend towards textured laminates and the advent of the internet of things is highly creative and exciting.
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Machine tools vital to manufacturing in SA

“The manufacturing industry has the potential to contribute significantly to the country, but tools are the key to manufacturing and without relevant and high quality equipment, it remains a pipedream for the country to compete with countries such as Germany,” Jeff Radebe, Minister in the Presidency told exhibitors and visitors at the Machine Tool Africa 2017 expo.

Speaking at the first stand-alone machine tools exhibition in 20 years, Radebe said: “Boosting the country’s manufacturing base is a goal of the National Development Plan (NDP),” he added. “It addresses industrial development as a long-term growth path for the country, with the shift from a commodities-based economy, to exporting a higher share of global products.”

Forestry sector

Aspects of the future of the local forestry beneficiation sector are highly dependent on the tooling industry. For example, no vehicles or machines can be manufactured or maintained without high quality tooling and tool die and mould making capabilities.

The Department of Trade and Industry (DTI) has invested in the National Tooling Initiative Programme, which is a multi-stakeholder project established under the auspices of the dti and the Toolmaking Association of South Africa (Tasa) to implement a turnaround strategy for South Africa’s distressed tooling industry. The aim is to enable government and industry to cooperate on the large-scale interventions required to rehabilitate the South African tool, die and mould making (TDM) industry to place it on a firm trajectory to international competitiveness.

There are major technology trends emerging in the global TDM sector and South Africa will need to invest heavily in the necessary technology to remain competitive. These technology shifts have increased the need in South Africa for higher-order skills such as computer numerical control (CNC) machine operators and developers, which are critically short skills in the woodworking industry.

The tooling initiative has an enterprise development component, which focuses on:

- Developing the capacity and competitiveness of existing local TDM sector companies
- Attracting direct foreign investment from top international tooling companies in areas where local technology and skills are unable to meet the demands of industry
- Encouraging increased local manufacturing to create jobs.

Benchmarking

To do this it is important to benchmark. The WBA Aachener Werkzeugbau Akademie GmbH (WBA Institute) is the world authority on tooling-related research and consulting. The WBA Institute was formed by the Werkzeugmaschinenlabor (WZL) of RWTH Aachen University and the Fraunhofer Institute for Production Technology (IPT) in Germany and provides research and technical support to the WBA Institute.

The WBA Institute has developed a comprehensive tooling-specific benchmarking database, with an international footprint, which is used to benchmark local tooling companies against their local and international competitors. The benchmarking is conducted over a range of specific elements such as market, product, process, and resources.
The benchmarking provides a platform for local tooling companies to identify their strengths and areas for improvement and to design a roadmap for future growth and stability. The tooling initiative has entered into a contract with the WBA Institute to support ongoing benchmarking and company intervention projects in South Africa.

Within the South African TDM sector there are specific gaps in supply capabilities, especially in the field of large complex tooling, where the opportunity exists to entice foreign technology partners to invest in local capacity. The localisation support project objectives of the national tooling initiative are to source suitable technology partners and to assist such partners in evaluating the localisation opportunities, market conditions and feasibility of such investment.

Local manufacture

In his address Radebe referred to the recent World Economic Forum (WEF) that took place in Durban, urging the industry to question itself. “The themes emerging out of that forum are relevant here, in terms of the extent to which the manufacturing industry contributes to inclusive growth. As an industry, you need to ask yourselves, how can tools change Africa’s citizens and address unemployment and poverty?”

“We need to produce our own goods, and not import them. The potential is here, we just need to develop it,” says Radebe.
Cutting-edge machine tools supplies come alive at industry event

Local machine tools suppliers together with their international principals showcased the latest technology and innovation at Machine Tools Africa, which took place at the Nasrec Expo Centre from 9 to 12 May. Visitors were able to see all the machines in action with many daily demonstrations.

Machine Tools Africa is bringing the quality of this industry sector to the forefront by showcasing the latest in innovative technology, machinery, equipment and accessories,” says Gary Corin, managing director at Specialised Exhibitions Montgomery, organisers of the event.

“Live demonstrations, product displays, conversations with technical experts and free-to-attend seminars made this an event not to be missed. The show delivered opportunities for buyers of machine tools to remain relevant, competitive and ahead of their game.”

MJH Machine Tools launched the Akira Seiki CNC lathe with Mitsubishi control at Machine Tools Africa.

“The Akira Seiki brand is very well known in SA and the Akira Seiki CNC lathe now completes our product offering to the SA market,” says Ricky Lazenby of MJH Machine Tools.

Several machines were on display with the Ctek and Akira Seiki machining centers machining components during the expo.

Also launched at Machine Tools Africa was a new air / CTS driven spindle speeder on the Multitrade Distributors stand. Both variants are capable of reaching speeds of 60 000 rpm depending on coolant/air pressure. Yoshiyuki Fujibayashi and Ricky Chua from MMC Hardmetal in Thailand was in attendance at the exhibition.

Walker Machine Tools showcased a wide display including machines such as Pressbrake Sunrise punch and shear, 5GH milling machine, Davi plate rolls, and Kesmak bandsaw.

At the RGC Engineering stand, visitors were able to see various GOM Atos Core 3D scanners on the floor and they also displayed a Mitutoyo Crysta apex coordinate...
measurement machine, doing live demonstrations on all their products. Live cutting demonstrations took place on the Retecon stand on most of the machines on display. They also launched the latest technology in machining, turning, cutting and bending. Technical presentations were given on each machine.

B&R Metrology showcased an array of metrology solutions products ranging from CMM’s, portable scanning arms, shadow graphs and others, including Renishaw probing and inspection products.

“One of our exciting new age products on display was the Inspecvision Planar sheetmetal inspection equipment,” says B&R Metrology’s Bryn Labuschagne. “We are committed to bringing high end new age technology into South Africa,” he adds.

Elquip Solutions showcased a variety of electrical components, tooling and machinery on their stand at Machine Tools Africa.

One of Elquip Solutions’ key overseas principals is the Hoffman Group, which supplies 500 brands of tools, ancillaries and other manufacturing-related products from global leaders in their various fields of manufacture.

“By approaching the world’s best tool manufacturers to manufacture specifically for them, Hoffman accesses vast experience and expertise for the benefit of its customers,” explains Elquip Solutions managing director Mike Cronin. “We are proud to be able to pass this on to our South Africa customers”.

Elquip Solutions’ long-term relationship with overseas supplier IMET brings the very latest cutting-edge sawing solutions to South African industry. Last year, IMET introduced the XSmart3 DC12A-NC automatic double-column bandsaw, which is intended for high-volume production of a variety of materials.

Skok Machine Tools exhibited all the new innovations from their varied supply partners, from machine tools to tooling.

“We have Johnford and Goodway CNC machinery and Mega band saws on the stand, and are displaying tooling and accessories form Kyocera, Allied, SYIC and SMICUT,” says Marcus Filer, sales manager-tooling at Skok Machine Tools.

SOMTA Tools also exhibited at Machine Tools Africa this year alongside a variety of highly sought after OSG products.

These included OSG’s high performance carbide drills, hss-co extra long drills, micro-sized carbide end mills, indexable drills and their powder material A-Tap Series.

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Spiral cutter block from Felder reduces noise by up to 19 decibels

Woodworking machinery manufacturing group, Felder, has developed a spiral cutter block that makes their planing machines very quiet both when idling and cutting. It also makes a smooth cut with less of the ripple effect one gets from standard cutters.

Surface and thickness planing machines are extremely noisy and, depending on the sharpness of the knives and the type of wood being planed, noise levels often exceed 105 decibels (dBA), which is far above the internationally accepted 85dBA safety limit.

The Felder Group manufactures the Felder, Hammer and Format 4 woodworking machines, and decided that they needed to find a solution for these excessive noise levels. Their research and development resulted in the birth of the Silent-Power spiral cutterblock that is up to 19 dBA quieter than cutter blocks with three parallel knives.

Austro Cape client, Tiaan Maritz, bought a new Felder fitted with the spiral cutter block after watching a video of the machine that demonstrates how quiet the cutter block is. Maritz enthusiastically told Wood SA about his experience: “I thought they were exaggerating about the decibels, but when I switched on the machine I could not believe how quiet it actually is. It is one of my best buys, ever – it is really amazing.”

The noise reduction achieved by the Silent-Power cutter block means that it is not necessary to have a slotted table above the cutterblock. The closed design of the planing table lips leaves the full surface available for the exact processing of the workpiece, and optimal dust and chip extraction takes place. Some users have found that their dust extraction is now louder than their planer.

Felder believes the design will remain unbeatable when it comes to economic performance and efficiency: Both of the spirals are equipped with rotatable cutters that are positioned next to each other and have cutting edges that overlap. The special geometry of the cutters, and their positioning, guarantees a continuous pulling-cut and tear-free planing results with every type of wood.

When compared to similar systems that offer a traditional spiral cutterblock but with more than two rows of knives Silent-Power block has considerably lower power requirements, which means lower energy costs, a larger chip removal area and better dust extraction.
Flexible solutions for individual requirements.

The K 700 is available in 3 different models, all with the 'X-Roll' sliding tables from 1300 mm in length on the basic, 2050 mm on the Professional and 2500 (optionally up to 3700 mm) on the K 700S, ensuring perfect woodworking results.

With the solid outrigger tables on both the Professional and S models the panel saws leave nothing to be desired.
These qualities are mainly achieved by the specially designed seat in which the knives sit. The high quality tungsten carbide turn around knives are tightened and fit perfectly into the blade seat. This makes them easy and exact to position and offers maximum stability. It is when processing wood with growth defects or knots in particular that this unique design of the pulling cut raises the standard.

Felder uses disposable knives with four cutting edges and the marking on the cutters makes it easy to keep on top of how many times the knives can still be used. If the cutting edge becomes blunt or damaged then the knife can be rotated to expose a new, fresh cutting edge. This detail is decisive for the economic use of a spiral cutterblock.

An additional important detail of the Silent-Power spiral cutter block is the extremely short planing chips created when planing. This ensures a constant and compact transport of the chips to the extractor and keeps the machine and the workshop noticeably cleaner. The dust bags on the extractors fill up more compactly and therefore need to be changed less regularly. This saves time and money.

**Silent-Power key facts:**

- Noise reduction of up to 50% even without noise reduction lips because the surface of the workpiece is fully supported and dust extraction is good.
- A quieter workshop makes it a more pleasant working environment.
- Two rows of spiral cutters with rotatable knives positioned against each other without a gap that guarantee a continuous pulling-cut for a clean planing result without excessive power requirements.
- Large chip area ensures optimal chip removal.
- High quality, marked rotatable tungsten carbon knives, flush positioned on two sides makes it easy to position and completely stable. The life of the knives can last up to 20 times longer than high-speed steel.

This cutter block fits all new Hammer, Felder and Format 4 planing machines. At this stage, Austro says, it is not possible to retro-fit the Silent Power spiral cutter block.
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The Vermont Sales training academy announced its courses for April through to October 2017. The courses are open to all Vermont Sales customers, the trade, store management, their sales consultants as well as their customers, end users who are interested in learning more about power tools, accessories, and DIY projects.

The training is facilitator driven consisting of one and two day courses, run by a team of experienced staff, using all the latest equipment and technology from leading international brands, such as Festool, Triton, Kreg, Alpen, MPS, Bessey, Tork Craft, GAV, Felo, Aircraft, Armor and SawStop.

“We equip our customers and staff with the knowledge to maximise profits in their stores,” says Vermont Sales, skills development facilitator, Durelle Jansen, adding that training courses for Vermont Sales trade customers is free.

“This training has now been expanded to include the end-user - the DIY market and consumer - so that they can gain a deeper understanding of our products. There is a nominal fee for the DIYers and end users, which is well worth the cost.

“Vermont Sales customers will get the opportunity to use the latest tools and technology from our leading brands. Due to customer demand, we have now extended our courses and will be taking them around the country.”

Introduction to power tools: Festool, Triton and Tork Craft

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the different applications for power tools, and how to read and understand specifications, power tool motor construction, gearbox, and settings.

The drill, a most common tool in the work place
This section covers understanding the power drill, the different types, the parts, construction methods, how a rotary drill works, the pneumatic and hammer action and the various drill bits for different applications. Power tools from the leading brands will be utilised in this training such as Festool, Triton, SawStop, Tork Craft and drill and cutting leaders such as Alpen, MPS and Imperial, plus tools from the world’s leading clamping and fitting experts Armor, Kreg and Bessey.

The course also includes saws and cutting tools, looking at the different types of cutting machines from Festool and Triton such as angle grinders, cut-off machines, wall chasers, chainsaws, circular saws, band saws, jigsaws, reciprocating saws, oscillating power tools and scroll saws. The course also teaches you how to identify the correct saw blades to use, and it explains all the different accessories that go along with these tools.

Drill bit science by Alpen
This course will answer all you need to know about drills and drilling and will turn you into an expert, teaching you the right way to drill and which drill bit to use for which application.

Completing this course will stand you in good stead for the rest of your life, when it comes to drill bits and drilling, as it covers the understanding of the properties and grain structure the material you are drilling into.

How carbon steel is made, the role of hardness and tensile strength, all about alloys, high-speed steel drill bit terminology, and the different coatings on drill bits, and what purpose they serve.

It gives one the opportunity to work with the famous technically advanced Alpen drills and to understand and appreciate their capabilities.

The course also covers, Steel drill bit spiral designs, roll forged drill bits, fully ground drill bits, the use of Cobalt on drill bits, and speciality drill bits. All you need to know about wood drill bits, hole-saws and SDS.

Air supply in the workshop by GAV and Aircraft
This course covers the introduction to compressors, air power tools and accessories in the pneumatic environment. Followed by the most important part in the workshop, safety, this is paramount in all Vermont Sales training courses and plays and important part at the Academy as a workshop can be a dangerous place.

The trainers explain in detail the importance of using the correct compressors, regulators and filters, belt driven versus direct drive compressors, the air flow, and air pressure and maintenance, how to set up an airline system, the various fittings, pressure drops, the positioning of the equipment, and looping.

The course also looks at the everyday use of air tools, such as the tyre inflator, air duster, die grinders and a range of power tools. The course covers instructions on how these pneumatic tools work, general maintenance, negative air pressure and air flow, the vacuum operation for extractors, and using the latest dust collectors from Festool.

Airbrushing basics by GAV and Aircraft products
This course covers the introduction to airbrushing applications and the use of the individual tools, terminology for internal mix, external mix, single action, double action, bottom feed, side feed, gravity feed and choosing the correct airbrush. An explanation on how different airbrushes operate, the use of compressed air, the diaphragm compressor, piston compressor, propellant can and how to use an airbrush, are also covered.

It also covers your first assembly setup, useful tips, paint preparation, safety tips and maintenance, along with changing colours, cleaning the needle airbrush to prevent clogging, lubricating the needle and lubricating the air piston. This is followed by practical sessions using the latest international products from GAV and Aircraft.

Merchandising for retail environments
The Merchandising course is about the planning
and promotion of sales by presenting a product to the right market at the proper time, using attractive displays more simply, and the display of products in a retail environment.

This course covers all you need to know to help you in store. The topics covered are merchandising in practice, visual merchandising, the science of visual display, visual display staff, tips for merchandising, display options and a practical session.

Sales Training
This covers all activities related to sales. Training includes a full introduction, stressing the importance of training, the tools of the salesperson, the ongoing aspects of sales training with repetition, and definitions of customer and salesperson.

The communication skills programmes develop both verbal skills as well as non-verbal body language skills. Emphasis is placed on how to communicate effectively in the workplace. Communication roadblocks are examined and solutions to prevent them are explored, including inadequate vocabulary and language, strong emotions, distractions and noise, verbosity and verbiage, errors in perception, wrong assumptions, selective listening, prejudice, and talking instead of listening.

What happens when salesperson and client come face to face? How to handle the initial greeting, how to set the client at ease, and to create a selling environment are just some of the topics covered.

Closing the sale is really the essential point in selling, and it is this point that makes salespeople just mediocre or real winners. This module explores: What is a sales close? How to close? When to close? We then go on to practically work with tried and tested closing techniques. After this module, delegates will have developed a willingness to close more sales, and have the competency necessary to deal with closing.

Wood and Metal working projects: Festool and Triton
This programme is designed to apply the theory on power tools and accessories in a hands-on project. It addresses additional theory not previously covered within the Introduction to Power Tools course, such as assembly, profiling and finishing theory, using the legendry Kreg brands and products, plus the superb range of Bessey and Armor clamps, all of which will be used in this hands-on project.

The delegates will build a three-tier shelf and a wooden box. A prerequisite on this course is that delegates must have attended the introduction to power tools course first.
SECTOR EVENTS 2017

12 – 13 July 2017 in Cape Town
Biocontrols Conference and Expo
Southern Sun Cape Sun
- The conference is devoted to the use of biocontrols and biostimulants in agriculture. Explore new products, discuss concerns, and learn more about the rapidly changing developments related to biocontrol technology. Understand how demand is being shaped for future segment growth, and how products make their way from manufacturers and distributors to agents and farmers.
- Organiser: Agribusiness Global - lfitzgerald@meistermedia.com

27 – 28 June 2017 in Johannesburg
Manufacturing Indaba
Emperors Palace, Ekurhuleni
The aim of the annual Manufacturing Indaba and its provincial roadshows is to bring together business owners, industry leaders, government officials, capital providers and professional experts to explore opportunities and grow their manufacturing operations.

18 – 20 July 2017 in Pietermaritzburg
7th Forest Science Symposium
- Co-hosted by ICFR, IUFRo, DAFF, FABI, NMMU and SUN
- This event will showcase the depth and breadth of forestry research across southern Africa, and aims to provide a unique opportunity for the southern African forest research community to interact with international partners and share knowledge.
- The theme will focus on Research underpinning the sustainability of a diverse forestry sector and will explore forestry research in the broadest sense looking at natural forests, plantations and woodlands, the range of genera and species, geographical and environmental variation, and the diversity of people and products.
- Organiser: Sally Upfold, salty.upfold@icfr.ukzn.ac.za, Tel: 033-3862314

28 August – 1 September 2017 in Pretoria
Short course: An introduction to modern tree breeding
- Presenter: Prof Steve Verryn, sverryn@creationbreeding.co.za, 083-6525719

9 – 13 August 2017 in Johannesburg
100% Design South Africa
Hall 1, Gallagher Convention Centre
- 100% Design South Africa is the largest curated exhibition platform for sourcing high-end contemporary design in Africa.
- Organiser: New Life Communications – nathi@newlifecommunications.co.za

9 – 13 August 2017 in Johannesburg
Decorex Johannesburg
Gallagher Convention Centre
- Annual Decorex trade show for the latest in colours, décor, kitchens, wall and floor coverings, construction techniques, water saving systems and crafts.

14 – 16 September 2017 in Mpumalanga
AGFO 2017
Casterbridge Lifestyle Centre, White River
- AGFO’s objectives are to promote agriculture and forestry in the area, that it’s a successful trade platform for exhibitors and that to promote local businesses and make use of local entertainment during the event.
- Exciting events on the programme include a networking function, an agriculture and forestry forum, product & equipment demonstrations, various competitions, “boeresport”, fire-fighting demonstrations, and entertainment for children and adults including jumping castles and live music
- Contact: Joey Lascelle on admin@agfo.co.za

12 – 20 September 2017 in Kruger Park
DANA Africa Forest Industry Investment Conference and Field Trip
Skukuza Conference Centre
- Following on from a very successful Africa Timberland’s Investment Conference held in Durban in September 2015, DANA (NZ) is organising a second conference to be held at Skukuza Conference Centre, Kruger National Park on Tuesday 12 September and Wednesday 13 September to be followed by a two and a half day field trip in the White River region of Mpumalanga.
- The programme & speakers are detailed on the Conference Website tabs.
- Contact Julie Bell on dana@dana.co.za

29 September – 1 October 2017 in Knysna
Knysna Timber Festival
See display information

20 – 21 September 2017 in Melbourne
Woodtech Australia

26 – 27 September 2017 in Rotorua
Woodtech New Zealand
WoodTECH 2017 will show case scanning and sawing technology specialists, innovators and leading practitioners from around the world. The two-day programmes will provide up to the minute input from experts speakers, new technology updates, and practical workshops to encourage sawmill teams – management, mill production, saw-doctors and maintenance staff – to collectively put the
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More brands join the Stanley Black & Decker stable

Stanley Black & Decker unveiled three new tool brands that have joined its range of power tools and accessories.

Lenox and Irwin are the latest brands to join Stanley Black & Decker after it acquired Newell Tools towards the end of last year.

Manoj Panikkal, general manager of Stanley Black & Decker sub-Saharan Africa says the key brands identified by the company to be ideal for the South African market are Stanley, Black & Decker, Dewalt, Facom, Expert, Lenox and Irwin.

Stanley Black & Decker is a leading provider of tools and storage for power tool accessories, commercial electronic security and engineered fastening systems and, according to Bart Muller, president of emerging markets, Stanley Black & Decker, intends to grow its presence in emerging global markets.

Muller said the acquisition of Newell Tools for approximately US$1.2-billion, makes it the second biggest deal in the history of the company.

Stanley Black & Decker has been recognised as a global leader with numerous accolades including being named one of Fortune’s world’s most admired companies and Forbes’ America’s most reputable companies. Muller explained that this underscores the value of their culture of innovation and employees.

Over the last 15 years, Stanley Black & Decker has transformed from a 175-year-old small building products business to a large diversified industrial company.

The company as its known today was formed in 2010 when Stanley Works and Black & Decker joined forces. Stanley Works was established in 1843 to manufacture bolts, hinges and other hardware, and Black & Decker was established in 1910 to design and manufacture power tools.

“We always have had and always will have a passion for excellence, a commitment to our customers, and promise to better our communities,” said Panikkal.
“We deliver tools, services and solutions and have built a unique culture to support our success. It is a culture of innovation, growth, and outperformance which drives us to not only do better for our customers and end users, but to do better for each other and the communities we work in,” he said.

“We have embedded sustainable thinking into everything that we do through a system we call EcoSmart. We work, design, manufacture, market, sell and transport our products with sustainability at the forefront of our minds, because we know that our world is only as strong as the work we do to make it better every day.

“As an example, we are focused on living our ‘buy where you make’ and ‘make where you sell’ mantra wherever possible, which can help reduce our overall environmental impact and increase the reliability of our supply chains,” said Panikkal.

The global emerging markets covers three main regions: Latin America, Asia, Russia, Turkey, Middle East and Africa. “Our customers count on us for the best, so we push ourselves every day to deliver the toughest, strongest, most innovative hand tools, power tools, accessories, and storage solutions on the market,” he said.

“Not only do we help professionals construct the world’s homes and buildings, we support industries such as military, government, mining, transit, agriculture, energy, aviation, and more. Our tools & accessories team builds the tools that make the world,” said Muller.
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