Micro Emission (ME) PUR Adhesives

Solutions for Surface Finishing, Profile Wrapping and Edge Banding

www.kleiberit.com
Linear Saw

neil@multisaw-sawmilling.com
Neil - 082 569 2430
Office: 044 532 7840

https://m.youtube.com/user/multisawZA

Pinnacle Locally Manufactured by multisaw band sawmills
Editorial comment .................................................................2

FORESTRY

Bridging the technological divide ........................................ 4
Young SA scientist wins the coveted Blue Sky Award ........ 6
CTL vs TL harvesting systems .............................................. 8
Smart Waratah made it look simple at Focus on Forestry ......................................................... 10
Brazilian loader trailer and crane on show ....................... 12
Southern Cape forestry and processing industries in crisis ........................................................................ 14
Re-inventing forestry nurseries ......................................... 16
African out-grower nurseries: automation of a different kind ........................................................................ 19
Proudly South African for 90 years ................................. 22

TRANSPORT

FAW launches 6.130-series of locally built medium trucks ........................................................................ 23

SAWMILLING / TREATMENT

Wood-Mizer stars at Nampo and the Royal Show .......... 25
SANS 1288 poles are for non-structural applications only ................................................................................ 26
Manage your environmental risk – before it is too late! ...................................................................................... 28
Sappi shines in supplier development awards ............... 29
SA’s timber resources can support wood-based building systems ..................................................................... 30
Roof estimator and designer courses open for registration ..................................................................................... 32
Nukor supports Vollmer parts, circular saws and PCD grinders ........................................................................ 34

WOODWORKING / DESIGN

Cover story:

Kleiberit’s impressive new adhesives and coatings wows Ligna 2019 .......................................................... 35
Ergoform empowers employees and changes people’s lives .............................................................................. 38
Biesse Group celebrates its 50th anniversary .................. 42
High-end design featured at Decorex 2019 .................... 45
Lake Kariba inspires new chair design .......................... 48
Multi-function portable work bench launched ............. 48
In the May issue of the magazine, we present a snapshot of the Focus on Forestry conference and field day and publish the next two articles in our series on the latest research and development trends in silviculture and harvesting. We also describe perspectives from Sappi and NuSustain on how complex and simple technologies both contribute to the automation of commercial forestry nurseries.

In the sawmilling section timber treatment and quality is in the spotlight. We also present a synopsis of a section of the doctoral dissertation by Philip Crafford of Stellenbosch University that puts to rest any thoughts that SA does not have enough timber resources to pursue a drive towards a wood-based residential buildings culture.

The woodworking part of the magazine has a strong bias towards furniture design and manufacturing, with a report on Decorex and the award-winning Kariba chair from Woodbender. Office furniture manufacturer, Leon Roodt of Ergoform describes why and how he has given his employees shareholders a 60% share in the business.

Getting back to the subject of forestry, Dr Jaap Steenkamp of the SA Contractors Association says there is an urgent need for government officials to act rather than prevaricate and call meetings they cancel at the very last minute.

He says officials must take responsibility or admit that they don’t have the will or capacity to do what they say they will do. He is referring to the battle for the survival of thousands of forestry and timber processing employees facing unemployment in the Southern Cape following the series of devastating fires in the region.

Mentioning the Department of Agriculture Forestry and Fisheries (DAFF), CapeNature and SANParks, Steenkamp says “These government parties are supposed to take the lead in the issue but need to be pushed every step of the way.”

This may change now that the forestry value chain is no longer monitored by the Department of Agriculture, Forestry and Fisheries (DAFF) but rather by the brand-new Ministry of Environment, Forestry and Fisheries.

I hope that despite its acronym (EFF) the new ministry and its minister will heed the old saying “A new broom sweeps clean” while bearing in mind “But the old one knows the corners”. Minister Creecy has a daunting task ahead of her. Hopefully, she will listen with an open mind to the forestry sector industry organisations, employers and employer bodies, unions and rural communities that have a clear mandate to raise and debate issues and suggest sustainable working solutions that are backed by scientific research.
THE BIGGER, BETTER BLOWER

STIHL’s powerful BR 700 Magnum backpack blower delivers an impressive blowing force, quickly shifting potentially flammable natural matter from under rocks and roots, helping create new fire lines, and effectively clearing dry earth mineral firebreaks. This backpack blower has an impressive high air-throughput of 1550 m³/h, plus user-friendly features like reduced noise levels, reduced emissions, an anti-vibration system and a comfortable-to-operate lightweight design (it is the lightest machine in its class). The STIHL 4-MIX engine makes it highly fuel efficient, a factor that is significant when working in the field with minimal refuelling opportunities. Improved design features include the infinitely extendable and easily adjustable blower tube, toolless handle position adjustment, automatic choke reset so the choke lever returns 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 STIHL BR 700 Magnum is a multi-use blower with a premier performance, ideal for fire season.

Like any premium item, STIHL products are only available at specialised dealers nationwide, for expert advice and superior after-sales service.

facebook.com/stihlza www.stihl.co.za instagram.com/stihlza
Bridging the technological divide

Bridging the technological divide in the African forestry sector was the theme of the 2019 Focus on Forestry conference. It was held in Mpumalanga in April (WSA&TT April 2019) and attended by over 300 people. There were 30 presentations spanning silviculture, fire management, mechanised harvesting and forest engineering that enthralled the 300 delegates. It was accompanied by static exhibitions and an important field day. Each month WSA&TT will include one or more contributions from the presenters and exhibitors.
Stihl’s exhibition and field day team were Quenton Esterhuizen, Duncan Fryer and David Kiest.

The Tigercat LH822D tracked carrier fitted with the hi-tech Log Max harvesting head was in action. Afrequip/Tigercat was the platinum sponsor of the event.

Curious onlookers spent some time debating the function of a small tracked Xtract machine. It was only when they realised that it has interchangeable bodies, including a tipper, that the versatility of the machine became clear.

The general manager of Techno Switch Fire Detection, Brett Birch and the company’s marketing manager Gretchen Retief hosted a joint stand with Andy Hossack, the director of FFP who represents the FireFox fire suppression range of equipment.

Brendan Moore of Afrequip.

Johan Kruger of Husqvarna describes sensors on chainsaws.

The only woman speaker at Focus, Florah Mathelele of NMU.

Ponsse, represented by Green Projects’ MD Frank Uzzel, was one of the Gold Sponsors of the conference.
**Young SA scientist wins the coveted Blue Sky Award**

Martin Wierzbicki, is one of three global winners of the 2018-2019 Blue Sky Young Researchers and Innovation Award announced by the International Council of Forest and Paper Associations (ICFPA).

Wierzbicki is an MSc graduate from the University of Pretoria (UP) whose research focused on genome-based biotechnology for designer wood that would facilitate better industrial processing. Dr Ronald Heath, director: Research and Protection at Forestry South Africa (FSA) says the industry is proud of the achievements of Wierzbicki and the country’s forest-based scientists.

Jane Molony, executive director of the Paper Manufacturers Association of South Africa (PAMSA), said “We are immensely proud of Martin and his accomplishments.” PAMSA co-ordinated the local South African round and, along with the ICFPA, sponsored Wierzbicki to attend the meetings in Vancouver.

Wierzbicki, and his two joint-winners, Elina Pääkkönen (Finland) and Chinmay Satam (USA) made their award-winning presentations in Vancouver, Canada on 8 May to industry executives at the International Council of Forest and Paper Associations (ICFPA)-hosted international CEO Roundtable, a biennial gathering of forestry and forest product companies.

Bernard de Galembert, Innovation and Bio-economy director at the Confederation of European Paper Industries (CEPI), led the competition process. He said the jury unanimously praised the quality of the submissions and it was difficult to select the winners from 13 strong international contenders. Another South African entry among these 13 global entries was that of Madeleine Pretorius, an MEng graduate from the North West University. The focus of her study was the synthesis of polycarbonates from waste lignin for application in the preparation of non-isocyanide polyurethane (NIPU).

**The competition**

Each ICFPA country association hosted a regional round calling upon young researchers to showcase their work. After the local adjudication process, countries submitted their top contenders for the global round.

Jury members included prominent experts from the United Nations Food and Agriculture Organisation (FAO), the International Union of Forest Research Organisations (IUFRO), forest-based company Metsä Spring and research institutes from New Zealand and Canada.

They evaluated the submissions against several criteria: compliance with the overall theme, level of innovation, quality of the abstract, clarity of the results, the capacity to solve industry challenges and ambitions as well as the probability of implementation and upscaling.

**Forest molecular genetics**

Wierzbicki conducted his research under the supervision of Prof Zander Myburg, director of the Forest Molecular Genetics (FMG) Programme at the Forestry and Agricultural Biotechnology Institute (FABI).

“The FMG programme is one of the industry’s flagship research programmes and is significantly funded by the forestry industry. We are delighted that Martin’s work has been recognised internationally,” says Ronald Heath.

Wierzbicki also worked in collaboration with Prof Shawn Mansfield of the Department of Wood Science at the University of British Columbia, Canada. During his undergraduate studies at UP, Wierzbicki was selected to be a mentorship student in the FMG Programme in FABI and later became a mentor himself for undergraduate students.

Wierzbicki’s work concentrated on how the genetic makeup of trees can be changed to improve how wood reacts to industrial processing in order to maximise the extraction of biopolymers such as cellulose, lignin and xylan (a complex sugar found in plant cells).
FIVE REASONS WHY SOUTH AFRICA'S FORESTS ARE WORTH CELEBRATING

1. SOUTH AFRICA IS HOME TO NATURAL AND PLANTED FORESTS

A forest is an area of land dominated by tree species with overlapping canopies that cover at least 75% of the ground they cover. Around 1.7 million hectares – 1.6% of South Africa – is covered by forest. One third of this – half a million hectares – is made up of natural indigenous trees. The remaining 1.2 million hectares are farmed, just like you’d farm maize or wheat. Interestingly, a quarter of SA’s indigenous forests are protected within planted forests. Farmed trees provide a renewable resource. This is because when a mature tree is harvested, a new sapling is planted in its place.

3. THINGS WE USE EVERYDAY

Poles, pencils, paper, books, wooden planks and cardboard packaging are what initially spring to mind when listing the products made from farmed trees. Cellulose is added as a filler and binder in low-fat yoghurt and cheese, vitamins and cosmetics. It is also used in paint, dissolvable stitches, viscose fabric and LCD screens. The list is endless. Research and technological innovation means we keep making more from wood while ensuring that less goes to waste.

5. FUN

Forests provide a wealth of fun activities for the whole family. South Africa's forests offer a place for mountain biking, hiking or trail running. We can also explore and enjoy the beauty, animals and plants they have to offer. There is something for everyone in a forest!

2. FRESH AIR, CLEAN WATER AND CONSERVATION

Trees absorb carbon dioxide, a major greenhouse gas, which they store to help them grow. They also release oxygen which we all need to survive. They also absorb and store rainwater, removing impurities before releasing it into the ground, and trees prevent soil erosion with their deep root systems. Forests also provide refuge, food and shelter for many plants and animals.

4. CAREERS

South Africa’s forestry industry employs 158,000 people, and many more if you count all the people that keep forests healthy and productive. If trees, forestry and nature are your passion then there is a place for you. There are also places for tradesmen, nurses, scientists, social development officers, IT consultants, drivers, communication specialists and environmentalists, just to name a few!

Visit www.forestryexplained.co.za for a teacher’s pack that will help you bring your lesson on forestry and trees to life.

Visit these websites for more information

www.forestryexplained.co.za
www.forestry.co.za
www.thepaperstory.co.za
Separating wood components into distinct processing streams as cleanly as possible allows each component to be used to make high-value products but is hampered by the strong associations between wood biopolymers that make industrial breakdown difficult and costly. “I have combined genetics, genomics, big data and wood chemistry analyses to build a gene network model,” he explains. “My model treats the tree as a living biorefinery, where we have control of how the wood is made.”

He hopes that his work will help companies to improve breeding techniques to reduce the loss of valuable components during wood processing and to introduce novel properties for advanced biomaterial production in trees.

**Renewable packaging alternatives**

Pääkkönen, a senior scientist at VTT, the Technical Research Centre of Finland, presented a viable earth-friendly packaging material from wood fibres using foam-assisted forming technology. “This is much like a common polystyrene foam cushioning, but made from common papermaking pulps,” explains Pääkkönen.

Satam, a PhD chemical engineering candidate at the Georgia Institute of Technology in the USA, is developing multi-layer films made from chitin nano-fibre found in the exoskeletons of crabs, insects and spiders. These fibres are also present in the cell walls of fungi. She is researching cellulose nanocrystals for sustainable barrier applications to replace commonly used plastic barriers such as polyethylene terephthalate (PET).

### CTL vs TL harvesting systems

Pasca Dembure Tigere, a recent graduate of Nelson Mandela University (NMU), presented a paper on the results of his research at the Focus on Forestry conference. The title of his research and presentation was cut to length (CTL) vs tree length (TL) harvesting systems put to the test in the thinning of pine plantations. Pasca wrote the following for WSA&TT:

The importance of timely thinning in the production of solid wood products cannot be over-emphasised. Thinning creates better growing conditions for the residual trees, which improves the value of the final, clear-felling harvest and provides an intermediate financial return for the landowner.

Since thinning is an intermediate stand treatment, the remaining stand of trees is a major concern. The harvesting method and system selected for thinning should achieve the desired selectivity while causing minimum damage to the residual trees.

The introduction of cut to length (CTL) harvesting in thinning operations is facilitated by the availability of reliable mechanised solutions that should ideally be designed for thinning operations. Mechanised CTL harvesting improves operator productivity and safety and is the dominant system in ground-based operations across most of Europe.

### Europe

South Africa represents a typical case in point, where motor-manual harvesting techniques has dominated until the late 1990s. Thinning operations were often conducted according to the tree-length (TL) harvesting method using labour-intensive techniques that included motor-manual felling and processing with chainsaws, and extraction with forestry-fitted farm tractors.
However, trends from the early 2000s indicate that there is a general shift towards fully mechanised harvesting systems resulting in the large-scale introduction of mechanised CTL harvesting technologies. This is widespread in clear-cut felling, and the trend is now expanding into thinning operations.

Currently, semi-mechanised TL and fully mechanised CTL harvesting co-exist, which permits studying them side by side to develop reliable reference figures that can be used to compare the advantages and limitations of the two systems.

**Research results**

A comparative study was conducted in the second commercial thinning of a 12-year-old slash pine (*Pinus elliottii Engelm*) plantation in South Africa.

The goal of the study was to compare semi-mechanised TL harvesting with fully mechanised CTL harvesting in terms of:

- Compliance with silvicultural prescriptions
- Value and volume recovery
- Productivity
- Cost
- Residual stand damage.

The two systems were assessed on 32 adjacent plots with a mean surface of 4000 square metres each. Plots were randomly allocated to the two treatments so that each treatment was replicated 16 times.

The experiment consisted of a classic time study, followed by the visual inspection of all plots for determining damage frequency and severity.

While mechanisation allowed a dramatic (tenfold) increase in worker productivity, it also resulted in a proportional increase in team costs, which offset the large efficiency benefit and ended up with both methods incurring similar production costs of between R180 – R200 per square metre. Mechanised CTL harvesting, however, resulted in a significant reduction in residual stand damage frequency from 5.2% to 2.9%, and severity with 28% smaller wounds.

Mechanised CTL is therefore preferable because it can reduce the frequency and severity of residual stand damage. In social terms, however, mechanisation reduces employment potential but promotes job quality. While conventional harvesting solutions can employ many more people, it offers low-paid, tiresome and potentially hazardous jobs.

This study is among the few comparative studies of thinning system performance that adopts a strict experimental design. Measurements were repeated on many identical replicate plots that were allocated randomly to the two treatments, as befits a good scientific experiment.

Additionally, researchers implemented a simple study protocol that minimised measurement errors and favoured replication by other scientists. For these reasons, the study should be considered robust and its results reliable.

Pasca Tigere is now the planning and control manager of Thuthagani Contractors in Paulpietersburg.
Smart Waratah made it look simple at Focus on Forestry

The Waratah H415X harvesting head was closely examined by the foresters who attended this year’s Focus on Forestry field day.

Waratah harvesting heads are imported and assembled by Forestry Plant & Equipment and supplied to Bell Equipment to match it with the ideal mechanised harvesting solution for each customer.

Jules Larsen, Waratah’s general manager for Africa was at the field day to discuss the company and its series of 16 different models of harvesting heads. Waratah has 46 years of experience in designing, innovating, and manufacturing harvesting heads for the world’s foresters.

Larsen said about four years ago there was a major shift in demand for harvesting heads. “Forest owners began to transition away from concentrating mainly on how heavy duty the equipment was and began to specify high-tech features.” This is driven by the need to limit waste and a general reduction in the size of trees.

“The emphasis is now on collecting real time data and feeding it to the operator and control centre so that informed decisions and actions can be taken. It is all about showing you what to do rather than what is happening.

The tech pack is getting bigger and the user interfaces friendly and simple to use,” explains Larsen.

This includes communication systems like blue tooth, cell phones, company mobile networks, two-way radios and wi-fi, and upgradeable system software accessed through large touch screens mounted in the cab. Larsen says there is more technology coming, all geared at pre-empting downtime due to machine maintenance needs.

The H415X machine at Focus was purpose-built for tracked harvesters and features a rugged main saw box with heavier steel plating, extra component guarding, hose protection, and increased drive arm durability for demanding track machine applications.

Larsen explains that the H415X offers options for many applications, with multi-tree handling, integrated top saw for processing and hardwood and with feed wheel or knife variations for variable stem types.

New feed-roller-arm geometry ensures rollers grip solidly and reliably carry trunks in all diameter ranges.

The H415 offers a solution for various kinds of clear-felling with its three options for stem types: standard (narrow stem), buttress (wide stem), and top saw (processing and hardwood).

The latest Waratahs are equipped with a measuring and control system that provides versatility with configurable settings for improved head performance, consistent production, productivity and measuring accuracy.

“The H415 is hard to beat when it comes to productivity, uptime, and low daily operating costs,” Larsen comments.

The emphasis is now on collecting real time data and feeding it to the operator and control centre so that informed decisions and actions can be taken. It is all about showing what to do rather than what is happening.
Bringing the family together...

Bell Equipment’s acquisition of long-standing partner, Matriarch, brings a fresh energy and focus on agriculture and forestry, enabling us to better provide a tailor-made full line solution to our customers.

With founders, Justin and Ashley Bell – sons of Peter Bell – back in the Bell fold, we look forward to carrying on the Bell family values and building on the family heritage together.
Brazilian loader trailer and crane on show

TMO Forestry, represented locally by Raphael Souza, demonstrated its hardworking and robust forestry loader trailer AC7612T and tractor-mounted crane at Focus on Forestry in Mpumalanga.

Souza’s company, Bxport, is based in Amanzimtoti and specialises in Brazilian machines and equipment. Souza told WSA&TT he has several satisfied customers using the AC7612T. He described how Warburton Sawmill in Mpumalanga, is transporting 12 loads of pine thinnings a day.

“The client bought the loader trailer to replace two locally manufactured machines. Within a short time, he found his operation to be much more efficient and he is saving hundreds of rands a day on diesel consumption,” says Souza.

“TMO Forest provides a complete line of wood buckets equipment for final cutting or wood thinning. There are seven Forestry Loader Trailer models with load capacities ranging between six and 18 tonnes depending on the customer’s requirements.”

The truckload of all the models is supported by a central beam in rectangular format with oscillating shaft with adjustable position on the central beam. The stringers and tandem are made of folded, reinforced, and adjustable plates on the central beam through studs.

TMO products are designed and manufactured by CIA Olsen of Tractors Agro-Industrial (TMO) in Brazil. The company was established in 1962 in the city of Caçador in Santa Catarina by Danish-born Oswaldo Olsen.

When Olsen settled in Brazil, he decided to manufacture forestry equipment that would improve the performance of Brazilian forestry companies.

Olsen pioneered the TMO forestry winches and forestry loaders in Brazil and today CIA Olsen/TMO is the market leading manufacturer in its segment and is known for the quality and robustness of its machines and the incorporation of appropriate optimising technologies. Souza assures all prospective customers that “the materials and manufacturing processes of all CIA Olsen/TMO products meet the highest international quality standards.”

The company specialises in manufacturing more than 60 models of forestry harvesting and extraction plant and equipment. “It is one of the largest manufacturers of forestry equipment in Brazil and its dedication to customer service has assisted it to establish a customer base for its exports to Latin America and Africa” explains Souza.

Souza says service and backup is always available. The Brazilian manufacturer has a highly skilled team of after-sales engineers and technical experts on standby 24/7. “The team is prepared to answer questions, advise on preventive maintenance, train operators and deal with any technical issues with TMO equipment globally.”

The AC7612T is proving to be an efficient loader trailer for Warburton Sawmill.
TMO has been in the forestry market for more than 50 years developing and offering solutions to the challenges encountered in the forest.
Southern Cape forestry and processing industries in crisis

The leading industry bodies Forestry South Africa (FSA) and Sawmilling South Africa (SSA) and stakeholders are working hard to find solutions that will ensure that the future of these industries and hundreds of jobs will be secure.

An important meeting driven by FSA and SSA of sector stakeholders was held in George on 3 December 2018. Unfortunately, a representative from the Department of Agriculture, Forestry and Fisheries (DAFF) did not attend the meeting despite assurances that a high-ranking official would attend to be briefed on the seriousness of the situation.

Following the publication of an article in the George Herald in February 2019, and through continuous pressure from stakeholders, another meeting was held at the George Campus of Nelson Mandela University on 28 March.

This meeting was attended by representatives of DAFF, FSA, SSA, the Forestry Charter Council, Southern Africa Forestry Contractors Association (SAFCA), the communities, PG Bison, Geelhoutvlei Timbers and the Southern African Institute of Forestry (SAIF).

Dr Jaap Steenkamp, CEO of SAFCA wrote the following article that was published in the George Herald on 17 May 2019:

At the meeting in March, DAFF was tasked with a number of assignments, including the establishment of a working group, but at a follow-up meeting on 25 April, it transpired the proposed working group had not been put together or other relevant stakeholders invited.

Losing out on R100m/year

At this meeting, where SAFCA had to again explain the gravity of the situation and the bigger picture, SAFCA used the current status of the salvaging of timber and the current available area as a case study. At the moment, more than 6 000ha is available that can be re-planted (salvaged and cleared).

If an annual increment of 12m³/ha is assumed and the production on this area is converted to sawn timber at an efficiency of 45%, with a price of R500 per cubic metre for round timber and R2 000 per cubic metre for sawn timber, then the loss to the George area alone amounts to just over R100-million per year. In the meantime, until the go-ahead to re-plant, the invasive plants and other vegetation are growing, hence increasing the cost of fire protection and re-establishment on a daily basis.

This increase in costs, depending on the actual time lapse to action, may well render re-establishment cost to become prohibitive for establishing the new timber rotation.

Absent government landowners

The biggest concern regarding fire protection is the issue of absent landowners who plead poverty. These include DAFF, CapeNature and SANParks. These government parties are supposed to take the lead in the issue but need to be pushed for every step.

As major landowners in the area and contributors to the fire disasters by their absence and non-management of their land, it is imperative that they should willingly be part of the solution.

It transpired also that forestry is not a priority for the Western Cape government. The reasons cited for this are that it is impossible to work with DAFF (the no-response attitude) and that they will rather make money available and promote, amongst others, tourism.

Fuelling the crisis

The whole situation could have been avoided if DAFF and the government institutions had the will and capacity (skills and monetary) to do what they are supposed to do as responsible landowners. There is also no excuse for DAFF not having a plan at all for the re-establishment of the areas earmarked for re-establishment.
Succession plans should have been drawn up long ago so that the areas they wish to transfer to the communities could happen as a transfer of a going concern - the best and most cost-effective situation. The fires actually highlight the complete lack of planning and capacity at DAFF.

**DAFF postpones meeting**

The planning for the short term will now be in conjunction with stakeholders, hopefully including public landowners. The next meeting was set for 17 May, but postponed to an, as of yet, unknown date, at the request of DAFF.

All things equal, and given willing positive government stakeholders, the questions remain:
- Will interim land management and fire protection be done well?
- Will re-planting start within the next two years?

It is, unfortunately, a fact that the mobile infrastructure in some areas like fire trucks are already disposed of, that retrenchment packages are being prepared for affected workers and that contracts have been cancelled, leaving contractors looking for alternative work.

Some salvage work is continuing, but that will come to an end in the near future. This will be followed by a proverbial big silence and increasing economic losses in the Southern Cape.

*Ed's Note: The original story was published online by the George Herald on 17 May 2019.*

---

**SAFCA short course schedule**

The Southern Africa Forestry Contractors Association (Safca) has announced the dates for its next short course and the 25 seats per venue are filling up fast. The course is open to all forestry contractors, contract managers, and large, medium, and small growers. It will be held over two consecutive days, between 08h00 and 16h30 and will be presented in English except in Tsitsikamma and Knysna.

The course content focuses on the financial side of contracting and is at NQF level 5. It will include:
- Determining the cost objectives
- Classification of cost
- Behaviour of cost
- Depreciation
- Structured cost determination
- Compiling a cash flow budget

This year Safca is celebrating 30 years of service to the industry and is offering entry to the course at a subsidised rate of R500 per delegate. Please note, delegates are responsible for their own accommodation, meals and refreshments.

The schedule is:
- Tzaneen at Hans Merensky Sawmill on 24-25 June
- Sabie at Platorand Safcol on 27-28 June
- Piet Retief on 01-02 July
- Kwambonambi at Sappi on 04-05 July
- Pietermaritzburg at SAFTC on 08-09 July
- Tsitsikamma at Witelsbos on 22-23 July
- Knysna at Concordia on 25-26 July 2019

Delegates who participate fully on both days will receive the unique SAFCA-30 Certificate of Attendance. Payment confirms registration and is on a first come first served basis. For more information contact jaapsteen@mweb.co.za.
Re-inventing forestry nurseries

Traditional tree breeding is a relatively slow process and to keep up with environmental changes, forestry nurseries and the growers’ tree breeding programmes are increasingly producing and selecting the most optimally suited hybrid varieties for each climatic zone.

Sappi’s Divisional Nurseries Manager, Wynand de Swardt says significant strides have been made over the past few years on new propagation techniques. Commercial forestry nurseries have moved from growing mainly seedling crops to growing approximately an equal proportion of seedlings and cuttings.

Sophisticated control

“In order to grow cuttings, known as vegetative propagation, sophisticated nursery facilities are required to grow the mother plants in sand beds and for rooting the tips harvested from the mother plants,” explains De Swardt.

“Both these sections need to be climate controlled. Sappi does this with a computer system that measures and controls key factors like the relative humidity, temperature and wind speeds. Based on these climatic factors the greenhouse, sides and roofs and climate screens will open or close to manipulate the conditions to obtain optimal rooting and growing conditions.”

To mitigate risk De Swardt says every aspect of the nursery, including water supply, pumps, power and computer controls, has a back-up in place. “Any variation in temperature and humidity can be catastrophic, especially for cuttings in the rooting tunnels, which are extremely fragile.” He explains that although the international trend is towards nurseries that are high spec, hygienic, and automated with a high throughput of seedlings and clonal material, this is dependent on the skills levels and social, political and environmental factors in which the nurseries are located.

Semi-automation

“An objective of nurseries is to produce plants at the lowest possible unit cost without negatively impacting on quality. Sappi decided not to fully automate its nurseries because it provides an ideal opportunity to create jobs within the rural communities in which these nurseries are located,” comments De Swardt. He also points out that “some of the physical straining and higher risk activities have been semi-automated.”

Sappi’s approach is to provide growth opportunities in nurseries by encouraging staff members to participate in personal development programmes to update existing skills and learn new skills. “Filling of positions are first done internally and only once a suitable candidate cannot be promoted or trained, do we consider external appointments.”

He describes how employees have become machine operators on, for instance, automated tray filling lines rather than performing the traditional repetitive and unergonomic practice of manually filling trays.”
Sustainability of plantations

Our plantations encompass a huge diversity of environments. With new technology available, Sappi breeders have focused on developing and testing a large range of new varieties, with species sourced from around the world to support our vision - by 2025 breeders will have developed a varietal answer for all Sappi sites.

www.sappi.com
Sappi has recently constructed a new Clan Nursery and rebuilt the Ngodwana Nursery. It plans to upgrade Richmond Nursery in 2023.

Training initiatives are followed to ensure personal development takes place for both personal and company benefit.”

**Sustainability**

The industry needs to move away from chemicals, plastics, non-sustainable growing media and reliance on non-renewable energy. “At Sappi, sustainability is built around; prosperity, people and the planet. These three pillars are the fundamentals to create value for the business.

“Hundred per cent of Sappi landholdings are FSC certified which gives customers the assurance that the trees used in our process plants originate from plantations that are managed according to the standards and requirements of sustainable forest management,” he says.

“Ongoing research work is done to use biological control within our nurseries that will further reduce chemical application.

A sustainable source of composted pine bark is used as a growing media for growing seedling crops. Alternative clean green energy sources are investigated to reduce the carbon footprint e.g. PV panels, solar thermal panels, and heat pumps.”

**Modelling and genetic tools**

Modelled future climate data assists companies like Sappi to adjust and direct their tree breeding strategies. “Our tree breeding division has a target of developing a hybrid varietal solution for all our sites by 2025. We are also making use of genetic tools, like DNA fingerprinting, to enhance and accelerate their breeding and selection process.”

De Swardt says pine and eucalypt hybrids are more successfully propagated through rooted cuttings rather than seed, and this practice is being rolled out to meet future requirements. “In addition to the recent construction of Clan Nursery and the rebuild of the Ngodwana Nursery, we plan to upgrade Richmond Nursery in 2023 to enable the production of supplementary hybrid cuttings in addition to seedlings.”
African out-grower nurseries: automation of a different kind

Smallholder tree breeders and growers in rural Africa rarely have access to the technologies, materials, financial assistance, and technical advice required for profitable and industrial-quality silviculture operations.

Willem Jacobs is managing director of NuSustain and the George-based supplier of Jiffy Products in Africa’s forestry industry. He says that in many countries in Africa north of South Africa the largest percentage of afforestation is done on small holdings through small-scale out-grower schemes. He describes out-grower schemes as an agreement between small-scale tree planters and entities such as government, private landowners, community smallholders or forestry companies.

Citing information from www.forestry-trust.org, Jacobs says that in Tanzania for example, small and medium out-growers represent 54% of the national plantation area.

Focus on forestry
Jacobs delivered a paper on Nursery mechanisation and technologies in silviculture tending operations at Focus on Forestry 2019. He pointed out that one of the major challenges facing small-scale out-growers is the state of the nurseries that provide their growing stock. These nurseries are typically small-scale and reliant on manual labour with access to basic technology and are scattered across a wide area.

“Very often reforestation projects are situated in remote areas, with limited budgets and without the luxury of established permanent nurseries and composting facilities to develop good growing mediums,” he explains. “Jiffy 7 and 7C seedling pellets in the bigger sizes (such as 60mmx120mm and 50mmx100mm) are highly effective for afforestation applications.”

Jiffy Pellets
Jiffy is headquartered in Norway and represented in this country and sub-Saharan Africa by Camel Thorn Horticulture, which imports, exports and distributes a range of horticultural products.

These include coco peat and peat growing mediums, and coco peat and peat products like seedling pellets, grow bags, grow blocks, biodegradable pots and pot strips and seedling trays.

“Our coco peat products are imported from Sri Lanka, and the peat products from Canada and Europe usually through Jiffy’s central warehouse in Denmark,” says Jules Kieser, the director of Camel Thorn Horticulture. Kieser is based in Johannesburg and there are offices and warehouses...
African out-grower ... in Hillcrest, KZN managed by Bradley Petsch and in George by Jacobs.

The Jiffy slogan sums up the importance of silviculture: “It’s all about the roots.” Roots grow through the pot wall naturally and are air-pruned, stimulating stronger, more fibrous root development than in plastic pots. “You don’t need to ‘de-pot’, which really affects a grower’s labour savings.”

The growing period was normally reduced by several weeks, compared with plants grown in plastic pots. “There are no recycling or disposal costs either, or another bonus is that the pot wall retains moisture, reducing water consumption by up to 20%.”

Jacobs provided the following case study to illustrate how a simple change in the tree breeding method by a rural nursery saved time and increased the yield of healthy seedlings.

**Nursery automation case study**

A case study was made of a wood fuel project nursery in Tanzania that provides 9.25-million seedlings to 4 600 growing sites.

**Baseline:**
- Typical nursery size: 400 000 seedlings per nursery.
- Growing medium: topsoil, sand and manure collected and mixed manually
- Container: Polythene tubes that are manually filled.
- Labour: 1 800 labour unit days needed per cycle.
- Cycle length: 4 to 5 months from the start of pot filling

**Problems and constraints**

There was a setup time of two weeks for growing medium collection and pot filling before sowing could commence. Complicating matters further was the high variability in growing medium quality and mixes, both intra- and inter-nurseries across the project.

Jacobs explains that this caused:
- High variability in plant performance and in-pot germination
- Increased pricking out and transplanting into empty pots
- Increased occurrences of J-roots from the nursery stage
- High labour requirements to do the sorting
- Ergonomic challenges

“This all adds up to increased labour costs and unpredictable delivery timing and poor-quality seedlings.”

**Potting in a jiffy**

Jacobs says investigations showed that onsite automation would not be practical due to the scattered locations and smallness of the nurseries.

The study discovered that the only part of the operations that could be “automated” was the offsite potting operation.

“The procurement of biodegradable Jiffy Pellets allowed for the semi-automation of the potting procedure,” explains Jacobs. “The pellets are created from coco-coir and netting in the form of dry compressed disks. Once hydrated each pellet expands to full pot size within seconds.”

**Positive results**

This Jiffy case study highlighted a number of positive spin-offs, including:
- The use of the pellets reduced pot preparation time to one day rather than the baseline finding of two weeks set-up time.
• Reduced set-up time provides a rescue measure for nurseries starting late.
• Due to uniform growing medium and optimal water holding capacity, porosity and pH, in-pot germination increased from around 65% to around 85%.
• Resulting in a 20% reduction in pricking out and transplanting and sorting operations.
• Germination on average 12 days quicker than in soil pots, which substantially reduced the growing cycle.
• Increased uniformity resulted in reduced sorting.
• Increased survival and optimal rooting caused a reduction of four weeks to the growing cycle.
• Overall reduction of labour by 60%.
• Overall water use reduction of 20% due to a shorter growing cycle.
• Increased controlled growing increased the number of optimal seedling deliveries and facilitated planting during the optimal planting period.
• Decreased weight of pots leading to increased transport and planting efficiencies.
• An increase of around 15% in planting productivity. This is a result of not having to remove the seedling from the plastic tube but being able to plant the seedling into the planting station.
• The overall increase in survival after the first growing season of 16%.
• Cost parity with small scale nurseries at large enough scale (300,000 seedlings plus).
• Reduction in use of polythene plastic tubes and environmental damage from topsoil harvesting.

The main negative findings were:

• The nursery could not operate until the Jiffy Pellets were delivered.
• Higher material input costs balanced by the many other economic benefits.
• Jiffy Pellets only contain a starter nutrient, and there is, therefore, an increased need for controlled fertilisation.

Jacobs says the project demonstrates how an investment in Jiffy Pellets can assist nurseries to become profitable.
Proudly South African for 90 years

For 90 years Lasher Tools, the only local manufacturer of agricultural, construction and mining hand tools, has played an important part in creating jobs and helping to build South Africa’s economy.

Lasher started out as the African Shovel Company, providing tools for Johannesburg’s gold rush. The task of removing rock and rubble with shovels was known as lashing and the Scottish miners who came to South Africa at the turn of the last century, were known as Lashers. In 1971 the name of the company was changed to Lasher Tools.

Lasher has grown into a thriving manufacturer producing a range of more than 1000 tools for the local and international mining, forestry, agricultural, construction, DIY and gardening sectors. The company is committed to creating employment and, wherever possible, upskilling its employees and now employs a local staff compliment of over 700 people.

Lasher Tools recently announced that it is now part of the Proudly South African movement. Proudly SA is an organisation that seeks to influence procurement in the public and private sectors, increase local production, convince consumers to buy local and to stimulate job creation.

This is in line with government’s plans to revive South Africa’s economy so that millions of jobs can be created, and unemployment can be decreased under the New Growth Path Plan.

The objective is that “by choosing to buy local we buy back jobs and the future we are destined for”. Lasher adheres to Proudly SA’s strict membership criteria includes:

**High quality**
Lasher is a proud manufacturer of tough, reliable, tools guaranteed. Its factories are ISO 9001 compliant and no shortcuts are taken in the manufacturing of its products. Raw materials are specified to the highest quality and processes are followed according to a tried and tested recipe. Lasher prides itself on having the best product and often makes small engineering design changes to enhance the functionality and safety of its equipment. It produces the only SABS-accredited wheelbarrow.

**Environmentally responsible**
The company is environmentally responsible and adheres to production processes that are environmentally acceptable. Metal and plastic offcuts are recycled and there is minimal waste generated in Lasher’s ISO 9001 factories. Lasher produces the world’s first recycled and recyclable Ecobarrow.

**Legally compliant**
Lasher complies with current legislation and adheres to fair labour practices. It is highly committed to its staff and has a proud history of longstanding employees, many of whom have followed their parents into employment at the company.

Lasher is dedicated to its mandate to boost the local economy by growing the business from its South African base, while extending its export network to the rest of Africa, the United States and Europe and Australasia.
FAW launches 6.130-series of locally built medium trucks

FAW Vehicle Manufacturers has launched the FAW 6.130 FL medium truck, specifically configured for the local market and built in South Africa for the southern and central African markets.

The FAW 6.130 is based on the popular FAW 8.140, reconfigured with a 2.8-litre Cummins ISF engine, shortened chassis and 3.5-ton payload, and shares a number of components with it, including the cab.

Jianyu Hao, CEO of FAW Vehicle Manufacturers SA, explains the rationale behind the introduction of the new, precision-designed, FAW 6.130 medium truck range. “Our decision to introduce this truck was based on customer demand and market opportunity,” he says.

“Our market analysis confirmed the need for a vehicle as durable and rugged as our heavy and extra-heavy trucks but reconfigured with a smaller engine and reduced payload compared to the successful FAW 8.140 range.

“The new FAW 6.130 FL carries all the hallmarks that FAW trucks are renowned for, namely strength, reliability, easy operation, and most importantly, delivering on the promise of a ‘truck built for Africa, in Africa.”

Imported from parent plants as SKD kits, the cab, chassis, axles, and other sub-assembly components, come together with the imported Cummins ISF engine, at FAW SA’s world-class Coega-based plant near Port Elizabeth.

Since its opening in 2014, this plant has provided jobs for over 100 new employees, all of whom have been freshly trained and up-skilled for the FAW 6.130 FL production. As demand for the new range and the existing heavy and extra-heavy FAW trucks increases, new job opportunities will be created. The total capacity of the plant is 5 000 units per annum.

The FAW 6.130 medium duty truck will be available from FAW dealers in a number of body derivatives – a drop-side, a tautliner option, a van body, a tipper and a rollback and a dry-freight insulated body. Customers may choose to buy the chassis cab and fit their own truck bodies to suit many other applications, up to a GCM of 10 tons.

Chassis and cab

The parallel chassis frame and smooth top flange construction has a low-weight advantage, especially when mounting a steel sub-frame cargo body. Uniquely, the locally built chassis passes through a special paint station to enhance its dust and dirt endurance and longevity.
The front suspension is the straight ladder-type with semi-elliptical leaf springs and front double acting shock absorbers. Semi-elliptical leaf springs are fitted at the rear. The axles, graded for a permissible 2.5 ton in front and 4.5 ton at the back, provide ample carrying capacity.

The cab is a forward 45° tilt, cab-over engine design and is based on ergonomic principles and provides easy servicing access. The digital instrumentation panel and all controls are placed comfortably within reach of the average-sized South African driver. FAW says the materials used are durable and smooth, yet comfortable and sturdy. The two-metre-wide cab allows for a three-person-seat, with a foldable middle section. Radio and USB connection are standard fitments.

**Drivetrain**

Hao says that in a business environment where total cost of ownership is a concern, the company has provided the most cost-effective combination drivetrain engineered to deliver efficiency and durability. Adding to its international pedigree the FAW 6.130 FL is fitted with the Euro 3 Cummins ISF 2.8-litre engine. This high-pressure, common rail 4-cylinder in-line diesel engine is one of the latest from Cummins’ reputable engine range and is ideally suited to the medium-weight truck category.

This engine, fitted with a turbocharger, is water-cooled, and intercooled. FAW says it provides exceptional performance, low operating costs, low weight, low noise and low emissions. The 6-speed synchromesh manual transmission is well matched with the Cummins powerhouse while adding easy driveability and full driver control.

Torque is 310Nm between 1 600 and 2 700 rpm, and a solid output of 96kW is on tap at 3 200 rpm. A waste-gated turbocharger provides excellent performance across the whole rpm range, as well as good response through higher low-end torque. These performance levels make the new Cummins engine and transmission ideal for weight sensitive and space-constrained drivetrains.

Advanced thermal engineering has made the ISF engine capable of running at higher operating temperatures, reducing the size and cost of the vehicle’s cooling package. The modular architecture of the engine allows for easy access and single-side servicing, reducing operating costs.

**Aftermarket service and warranty**

The FAW 6.130 FL has a 2-year/unlimited kilometre warranty and the full extent of sales and service from 36 local representative outlets across South Africa, Namibia, and Botswana. Other countries are also drawing on FAW in South Africa, some taking advantage of the better proximity presented through the SADC region and AU affiliation, such as Zimbabwe, Kenya, Tanzania, and Zambia. The Spartan-based facility is a dedicated national parts distribution centre, supported by the branches in Durban and Cape Town, which function as hubs to support all FAW representatives and self-service operators.

Since the FAW 6.130 FL shares many components with the FAW 8.140 FL, parts availability is assured, and adequate stockholding is in place. “One of the reasons for our success has been our partnerships with so many other world class regions and organisations. We take our relationships very seriously and we see our business relationship within Africa as one of the most important of these partnerships, “says Hao. “Our fundamental vision for this region, using South Africa as a base, is ensuring that the FAW brand becomes a household name across the length and breadth of this great continent, and in so doing we hope to significantly contribute to job creation and the general stimulation of the local and African economies.

“The FAW 6.130 FL is a ‘true-blood South African’, built locally and uniquely engineered for the African environment. Following a growing number of ‘firsts’ FAW has thrown down the gauntlet, as we continue on our Africa journey to create a proud legacy for FAW Vehicle Manufacturers SA,”concludes Hao.
Wood-Mizer stars at Nampo and the Royal Show

Wood-Mizer's stands at the National Maize Producer Organisation's (Nampo) Expo near Bothaville in the Free State and the Royal Show in Pietermaritzburg drew crowds of interested visitors.

“Nampo and the Royal Show are important opportunities for Wood-Mizer to showcase its products to the agriculture and forestry sectors in Africa,” says Gavin Prowse, Wood-Mizer Africa’s regional sales director.

Nampo Expo

Celebrating its fourth consecutive year as an exhibitor at Nampo, Wood-Mizer has seen the expo gain momentum and traction since its launch in 2016. This year Nampo had a record number of 775 exhibitors and hosted about 82000 visitors during the four-day event.

“Land clearing activities in Africa for agriculture projects are increasingly focussed on increasing the utilisation of timber that previously went to waste,” comments Prowse. “This, together with a growing interest from local farmers to invest in timber processing technology to add value to their farming operations, makes Nampo a landmark event for Wood-Mizer to attend.”

Prowse says; “Nampo’s attraction for diverse visitors from across the continent resulted in robust sales from the stand and underscores our belief in the expo.”

The company exhibited its tried and tested sawmilling and log splitting ranges at Nampo and introduced new products from its line-up of woodworking and turf care machines.

The Royal Show

The Royal Show in Pietermaritzburg is Africa’s largest mixed agricultural show, with an extensive entertainment programme and a broad mix of specialist and public-interest exhibitors. The annual event was first held in 1851 and this longevity is a fitting showcase for Wood-Mizer’s wide timber processing footprint that exists in the KZN and Eastern Cape provinces.

The same equipment ranges that drew attention at Nampo featured at the Royal Show, with similar results.

“Our presence at the Royal Show is an opportune moment for us to reach new customers and introduce the latest additions and innovations from Wood-Mizer to existing customers,” explains Prowse.

“Both provinces are stacked to the brim with loyal Wood-Mizer users and our presence at the event shows our commitment to and ongoing support for them and the sector. It also assists us to expand into new agriculture markets to show the rich potential that timber processing holds.”

“It remains important for Wood-Mizer to have an active and dynamic local show schedule that allows us to talk to new and existing markets, and also show our commitment to the ongoing growth of the local and regional markets,” comments Prowse.
**SANS 1288 poles are for non-structural applications only**

The South African Wood Preservers Association (SAWPA) has received complaints about the conduct of a number of pole treatment plants that are flooding the market with non-structural and ungraded poles that end-users are using as structural timber.

These reject poles are treated and supplied as SANS 1288 poles in the open market with a lower price tag than compliant poles. Consumers are not informed by the retailer that a SANS 1288 ungraded pole is not load-bearing. These poles end up being used for structural purposes, for which they are inadequate and are likely to fail prematurely.

In its latest Newsletter, SAWPA explains that the allowance for the treatment of pole material was introduced in the SANS 1288:2000 Edition 3 following a request from treaters to permit the treatment of poles that cannot comply with SANS 457.

This request was specifically made to allow for cases where there is a requirement from a consumer/end-user for a pole in an end application that requires a rustic aesthetic look, such as in the manufacture of outdoor furniture.

"The intention was never to allow for the mass production of poles under the SANS 1288 standard, and the flooding of the market with such poles,” states the Newsletter.

“This, however, seems to be the modus operandi of a small number of pole treatment plants. The only logical explanation for this is for commercial gain, with a total disregard for consumer safety, and future industry and product integrity.”

The building regulations and all building related standards clearly explain that when a pole is specified in a structure it has to comply with SANS 457-2 or SANS 457-3.

"With the imminent publication of the revised SANS 1288:2019 Edition 4, we are hopeful that it includes clear definitions and segregates specific treatment requirements for structural poles (SANS 457) and non-structural poles, which should reduce this practice.”

SAWPA warns that if the situation continues unabated then there is a case for further amendments to SANS 1288 once the new edition is published. For example, the definition for a non-structural pole can be amended to clearly state: “not intended for poles that can comply with SANS 457”, and possibly the inclusion of wording under Annexure A: Notes to Purchasers, that requires a purchaser to specify when non-structural poles are required for specific applications that do not fall under the SANS 457 scope of applications.

“The wrong timber used in the wrong way.

Structural timber must be legally compliant.
It’s all about confidence
Tried, tested and trusted preservative protection for timber.

Lonza Wood Protection
t/a Arch Wood Protection (SA) (Pty) Ltd
16 Indus Road, Marburg, Port Shepstone,
PO Box 54344, Marburg 4252,
South Africa.

Telephone: +27 (0) 39 682 6019
Fax: +27 (0) 39 682 6022
Email: wood.sa@lonza.com
Visit: www.lonzawoodprotection.com

TANALISED and WINGOL are registered trademarks of Arch Timber Protection, a Lonza company. Use wood preservatives safely. Always read the label and product information before use.
Manage your environmental risk – before it is too late!

The prosecution of companies responsible for environmental crimes is in the spotlight in South Africa where a recent guilty judgement against the global petrochemical giant, BP has placed legal compliance firmly on the government watchlist.

J du Plessis, senior business manager of Lonza South Africa, says the successful private prosecution against BP, who could now face millions of rands in fines, leaves the door open for similar private prosecutions. According to media reports it could even lead to the creation of a non-governmental vehicle specifically geared to train environmental lawyers.

The Department of Environmental Affairs (DEA) has implemented initiatives to ensure the compliance of environmental legislation, which amongst other things includes the inspection of facilities.

“With governing bodies such as the National Regulator for Compulsory Regulations (NRCS) and the DEA (or Green Scorpions) keeping a close watch on industries such as ours, it is critical that we stand together in ensuring 100% environmental compliance and that companies are properly informed on the risk to their business should they fail to comply,” warns Du Plessis.

Lonza was founded in 1897 in Switzerland and is a well-respected company with more than 40 major manufacturing and R&D facilities and approximately 9800 full-time employees worldwide.

“Globally, Lonza has a long-standing commitment to environmental responsibility by ensuring that regulatory compliance, integrity, and ethical conduct are the foundations in every place the company operates in,” he says.

This has been achieved through years of experience in working with environmental management plans (EMPs) and managing environmental risks. Locally, Lonza has gone a step further by helping its customers achieve the same environmental awareness culture in their businesses.

Culture of awareness

“Our team has an advanced understanding of the SANS specifications, which has given us the upper hand in assisting our customers to ensure that every required box is ticked when bringing Tanalith treatment businesses in line with the specifications governing our industry, locally and in East Africa”.

CEO and founder of Komaza in Kenya, Tevis Howard, commends Lonza on its technical support and high-level intelligence on the wood market. “Lonza’s full scope of support, beyond simply acting as a supplier, is important for early-stage growing companies like Komaza. As a young player entering an established and complex industry like forestry, Lonza’s help is invaluable and we are grateful to have partnered with them,” he says.

“You need to have a mindset of expecting an investigation, which means being prepared and ready at any time,” cautions Du Plessis. “Not only does an EMP facilitate a smoother investigation, it also demonstrates to the inspectorate officials that you are aware of the impact your business has on the environment and that you are willing to work with them”.

Lonza’s EMP template solution

Du Plessis says Lonza knows that the process of establishing an EMP can be daunting. “We have introduced a more user-friendly template that is specifically tailored for timber treatment plants and is drawn from Lonza’s own factory plan. This has been such a help to so many of our customers. It is customisable to each individual case and can be used for both sawn timber and pole plants,” he says. Other activities, such as creosote plants or boilers can also be incorporated.

Lonza provides onsite support to complete EMP documentation and identify other areas that need attention. One such customer, Kwambo Poles in KwaZulu-Natal, received a DEA site inspection last year and called on Lonza for their assistance.

“Having a first-hand experience of a DEA inspectorate, I cannot emphasise enough the importance of a properly
Sappi shines in supplier development awards

Sappi’s dedication to developing its suppliers bore fruit when the company was announced overall runner-up at the prestigious 2019 Absa Business Day Supplier Development Awards.

Sappi Southern Africa and Hatch Africa were runners-up for the Impact Award that acknowledges companies whose supplier development initiatives have been shown to impact substantially on the value-chain and are effective in the return on investment and or scale of impact. The award went to Property Point, a Growthpoint initiative.

The next achievement was runner-up, along with Bosch Holdings and Mr Price Group in the Nation-builder Award. This award acknowledges initiatives that are achieving exceptional results in supporting and growing non-traditional suppliers in one or more of the following areas: youth, black women, rural areas/areas with few alternative opportunities, and scarce skills not readily available in South Africa. The winner was Accenture.

Distell Group was the Overall Winner and Sappi Southern Africa, Hatch Africa and Mr Price Group were runners-up.

prepared EMP. We worked off Lonza’s EMP template and also used their valuable experience in collating the necessary documentation throughout the process. As a result, the inspection went through smoothly and we are most grateful for their support and guidance,” explains Nichole Audie from Kwambo Poles.

“As a company, I believe that we have done well in looking after our people and their safety by ensuring that they are issued with the correct personal protective equipment and that they are properly trained to carry out their jobs safely and efficiently with minimum waste of resources, says Du Plessis.

“As an industry, we need to consider our impact on the environment so that our actions today do not compromise the well-being of the generations to come.”

“..."
SA’s timber resources can support wood-based residential building systems

Logs that are currently being chipped and the chips exported to international markets could potentially be transformed into structural timber and used for wood-based building systems in South Africa

This is one of the conclusions of a recent study conducted by Philip Crafford and Dr Brand Wessel. The study title is ‘The potential of wood-based building systems to reduce global warming potential and embodied energy of residential housing structures in South Africa’. The report and results of the study form part of Crafford’s doctoral thesis submission at Stellenbosch University.

The objective of the study was to quantify the reduction in global warming potential and embodied energy if building systems for new residential housing structures in South Africa change to wood-based systems.

The rewards of wood-based development include environmental advantages, job creation, technological advancement, and other ecosystem services.

It is scientifically proven that buildings are major emitters of carbon dioxide and contribute significantly to global climate change. “A growing global awareness of the environmental footprint of buildings and the necessity to lower greenhouse gas emissions has led to the implementation of green building practices and the introduction of green building rating tools that have been used to measure the environmental impact and sustainability of buildings since the 1990s,” the researchers explain.

Numerous studies, including Crafford’s own research, confirm that substituting steel, light gauge steel, concrete and brick materials with renewable and sustainable wood products can significantly lower the environmental impact of a building over its lifetime.

Crafford and Wessel’s modelling analyses compared different future building market scenarios in South Africa. They concluded that if wood-based residential buildings increase their market share to 20% of new construction, the embodied energy (EE) and global warming potential (GWP) of the residential building sector would decrease by 4.9% from the current levels.

Wood-based building systems include timber frame, cross-laminated timber (CLT) and other wood-based materials such as oriented strand board (OSB) and plywood. “If all new construction is wood-based, the total EE and GWP of the residential building sector will decrease by 30.4%,” says Crafford.

The requirements of wood resources for future house construction can come from either new forest plantings, a change in forest resource use, or imports. South Africa’s industrial roundwood production is used mainly for the production of pulp and board products (51%), sawn lumber (24%), and chip exports to Asia (17%). Sources are cited that report that in 2016 sawn timber production was 2.3-million m³ of which 70% was used in construction, mainly for roof truss material.

Crafford reports that “South Africa is approximately 90% self-sufficient regarding forestry products and has a huge positive trade balance in this sector. Only 30% of the annual South African plantation roundwood production, about 5.6-million cubic meters, is used for solid wood production, the
remainder is mostly used by the pulp, paper and paperboard industries.

“New technologies and products such as CLT make it possible to construct medium-rise buildings from wood-based materials.” For example, an 18-storey building constructed mainly with CLT and glulam beams was completed in Vancouver, Canada in 2017. Crafford believes South Africa’s commercial and industrial building sectors could become an attractive option for wood-based buildings.

“Due to the limited forest cover in South Africa the perception is that a significant increase in the market share of wood-based buildings from local wood resources is not possible,” explains Crafford.

“This study showed that the perception is not correct and that current resources are available in large volumes. For example, eucalyptus logs that are chipped for the export market could potentially support significant growth in wood buildings.”

The researchers found that eucalyptus and wattle chip exports are the most likely available resources that could be used for future house construction components. They also considered new technologies such as green-gluing of eucalypt timber that enables the manufacture of engineered high-grade structural timber from fast grown pulp wood resources and CLT.

“It was shown that with the use of wood resources currently exported as chips, as well as the planting of trees in areas that have been earmarked for afforestation, it will be possible, in the long-term, to sustain a future residential building market where all construction is wood-based,” states Crafford.

“In the short-term supply gaps of wood building components could potentially be alleviated by imports using shipping with short land transport distances. However, research is required to quantify the environmental transport impacts from imports.”

The building scenario modelling showed that incremental 10% and 20% increases in residential wood-based buildings market share would result in a moderate environmental benefit, compared to the current national greenhouse gas impacts of the residential building sector.

However, a 100% increase in local timber-based development will result in significant savings 30.4% global warming potential in residential building impact.
Roof estimator & designer courses open for registration

The Institute for Timber Construction South Africa (ITC-SA) invites estimators and designers in the nail-plated timber roof truss industry to enrol for the Levels 1 and 2 Estimator/Designer Courses

The ITC-SA is the South African Qualifications Authority (SAQA) accredited professional body for the country’s engineered timber construction industry.

Engineering software for roof trusses has seen rapid advancement over recent years and has revolutionised the role of the timber roof truss designer and estimator. “Even so, the product of software generation is only as good as its input, making it vital that the designer and estimator understand the basics of truss design and can easily detect errors in software output,” explains Amanda Obbes, the national coordinator of ITC-SA.

To address the need for training in this area, the ITC-SA regularly hosts Level 1 and Level 2 Estimator/Designer Courses. Obbes says the courses address the basic mathematics, calculations, general concepts and 3D visualisations that need to be fully grasped and correctly implemented to be a well-rounded, capable, confident and efficient timber roof truss designer or estimator.

Course delivery is through self-study of professionally prepared content supplied by the ITC-SA. A Certificate of Completion is awarded based on the emailed submission of two open-book assignments and a final written exam.

The programmes will be facilitated in KwaZulu-Natal, Cape Town, the Southern Cape, Eastern Cape, and Gauteng and can be extended to other areas when required. Obbes advises learners that the maths required for the Level 2 course is of a fairly high standard. Applicants who have not yet attained a grade 12 level in the subject should carefully consider participation before payment of the non-refundable course fee.

The SANS Code of Practice 10243 is a requirement for study purposes and if the company does not have a copy it can be obtained from the SABS’ Standard Sales department. The ITC-SA will provide the rest of the course notes and commentaries for home study.

The fee includes the marking of written assignments and the cost of the final assessment which will be written at a suitable neutral venue. Assignment marks contribute 40% towards the final mark and a minimum of 70% final average is expected for successful completion of the course.

Entry to the exam will only be granted to students who have completed and submitted both assignments.

Cost of the courses:
- Level 1 Estimator/Designer Course: R3648 including VAT
- Level 2 Estimator/Designer Course: R4218 including VAT

Course dates:

First assignment:
- Sent to learners: 22 July
- Returned by learners: 9 September

Second assignment:
- Sent to learners: 9 September
- Returned by learners: 28 October

Examination date: 15 November

The registration forms can be downloaded from www.itc-sa.org/designer-programme/. The forms and proof of full payment must be sent to enquiries@itc-sa.org.
SKILLS DEVELOPMENT TRAINING
Take a step forward into the roofing industry or brush up on your current skills.

COURSES ON OFFER
- Online Roof Specialist Level 1 ( Erector training)
- Level 1 Estimator/Designer Course (6 CPD points)
- Level 2 Estimator/Designer Course (6 CPD points)
- Inspector training (3 CPD points)

The ITC-SA’s online training courses are specially designed for both newcomers to the industry and experts who wish to enhance and update their knowledge base.

Visit www.itc-sa.org/training-courses/ to find your fit.

Creating and maintaining the highest standards in the engineered timber construction industry in South Africa

www.itc-sa.org

HEAD OFFICE
SAFCA Building | 6 Hulley Road | PO Box 686, Isando, 1600
Tel: +27 (0) 11 973 1031 | Email: enquiries@itc-sa.org

BRANCHES
South / Eastern Cape | KwaZulu-Natal | Western Cape
Nukor supports Vollmer parts, circular saws & PCD grinders

Nukor has confirmed that it is the only importer and distributor of Vollmer parts and Vollmer circular saw and PCD grinding machines.

Cobus Richter of Nukor issued this statement in the wake of concern resulting from the announcement in Germany earlier this year that Vollmer has sold its wood cutting band saw division to Iseli.

Vollmer has a long-standing global reputation for manufacturing high quality and innovative saw grinding and eroding machines. The growth in demand for its CNC-controlled grinding and eroding machines prompted the company to make an important strategic business decision to invest more heavily in circular saws and rotary tools. Iseli, the Swiss sharpening machine manufacturer, took over Vollmer’s woodcutting band saw division from January 2019.

“Nukor will remain the only importer and distributor for Vollmer parts and circular saw and PCD grinding machines. All Vollmer band and circular grinding machines in the current marketplace will be serviced and supported by Nukor,” Richter explains.

“Vollmer has made a commitment to Nukor that original Vollmer band saw grinding machine spares will be available to Nukor and its customers for the next 10 years. Saw Specialists will be responsible for all new band saw grinding machine sales, service and support from Iseli. No Vollmer circular and PCD grinding machines will be handled by Saw Specialists.”

The Vollmer CHC 840 flexible sharpening machine for carbide-tipped circular saw blades up to 840mm.
KLEIBERIT 510.3 –
1C PUR adhesive fibre free

Load Bearing Wood Construction

- finger joint bonding of load bearing wood components
- meets SANS 10183-2 service class S3 requirements
- stress group D4 according to DIN EN 204
- different open times to meet specific production conditions
Kleiberit’s impressive new adhesives and coatings wows Ligna 2019

Kleiberit, the international adhesives and coatings company, exhibited a comprehensive range of new developments and innovations at their 600m² stand at this year’s Ligna tradeshow in Hannover.

The company introduced its new range of applications including:

- Surface finishing with the Kleiberit HotCoating technology for indoor and outdoor use
- High gloss lamination using the flat lamination process with PUR hotmelt adhesives
- Micro emission (ME) PUR adhesives.

The Kleiberit booth was a drawcard because of the company’s emphasis on practical live demonstrations and interaction with their audience. Interesting and technically challenging application solutions for profile wrapping, edgebanding, flat lamination, and complete line processing were the primary focus.

Three finishing lines ran continuously so that visitors could experience surface finishing under real conditions.

The future is now

Under the banner “The future is now” ME hotmelt adhesives for various applications were demonstrated and were well...
received by the thousands of visitors. The products feature high bonding properties, are safe and easy to handle, are environmentally friendly and require no labelling.

According to Bradly Larkin of Kleiberit, this is a proactive solution, particularly given the phased roll-out in Europe of the Registration, Evaluation and Authorisation of Chemicals (REACH) process.

The company is constantly researching and testing solutions for the challenges of hazardous and volatile emissions commonly associated with adhesives and coatings. Kleiberit’s micro-emissions solutions were presented in theme-based displays, such as flat lamination, profile wrapping and edgebanding.

New adhesive formulations for flat lamination of different materials for interior finishing were also shown. This included adhesives for manufacturing of doors, finger-jointing of load-bearing components, and reliable production of luxury vinyl tile (LVT) designer flooring.

Kleiberit shared its knowledge by participating in the Ligna Forum with a presentation on the latest developments in surface finishing, and in the Ligna Training sessions for handicraft professionals and apprentices.

The company’s products are distributed in South Africa by Austro and Hüster Machinetool Co. It’s exciting times for the global adhesive brand and with its new investment plan set to commence in the second quarter of 2019, it’s full speed ahead for Kleiberit.

Social responsibility is becoming a fundamental part of the production process and the demand for ‘green’ products from furniture manufacturers are beginning to demand ‘green’ products. Kleiberit has been instrumental in driving the market towards Isocyanate-free products with its new Micro Emissions range.
Leon Roodt wears many creative hats. He is an MBA graduate from Stellenbosch University’s business school, a visionary CEO and the inspiring designer and owner of Ergoform, an award-winning office furniture manufacturing business.

The name Ergoform combines the science of ergonomics with an artistic form to design aesthetically pleasing furniture that works with the body to ensure comfort and functionality.

Leon established the company in 1994 and today it has showrooms in Woodstock in Cape Town and Kramerville in Johannesburg, all supplied from the manufacturing hub of the enterprise in Cape Town.

Leon and his wife Alice, who is also in the business, love what they do. “The office furniture industry is different to any other,” Leon explains, “It is a hardworking ever-changing industry and survival requires a skillset with high levels of process management, creative design and capable people who want to work for the company.”

Leon says he always knew he wanted to have his own business. “After university, I began working as a management and training consultant. While sitting at my desk one day I looked at it and knew I would be able to improve on its design. At the end of that month, I resigned, set up shop in my garage and began to teach myself to make furniture.”

Ricardo Benting is the panel processing supervisor at Ergoform. Setting and operating the Biesse Skill 1836GFT nesting machine is a key part of his responsibilities.
YOUR ULTIMATE PACKAGING SOLUTION

COMPACK SERIES

Packaging can be a challenge if your products constantly change in size and are highly configurable or require customisation. “Box on Demand” is an approach to sourcing corrugated packaging for companies that ship a complex and shifting mix of products.

With our offerings you can easily and cost-effectively produce customer corrugated packaging in your own facility. Because you order raw, un-coverted material, your packaging cost are consistent across any configuration, quantity, or design.
Today Ergoform employs 80 full-time staff members and has a long list of satisfied local and international corporate clients. These include organisations like BAT, Discovery Group, Standard Bank and Absa Bank.

Leon explains that the success of the company lies in its single main purpose and that is to change people’s lives for the better.

“We focus on designing and manufacturing office furniture that improves the quality of the working life for all our clients,” he says. Office furniture design and interior design must be able to adapt to the changing needs of the people in the business environment.

**Employee shareholders**

The company’s mission is to be one of the best furniture manufacturers in the world, and Leon passionately believes that Ergoform has a responsibility to help transform its staff from task workers and machine minders to knowledge workers.

The compact Skipper V31 CNC multi-boring machine from Biesse is a boon for Ergoform’s non-standard production runs.

Ricardo Benting of Ergoform discusses the finer details of the Biesse Skill nesting machine with Chris Hugo of Austro.
“We make furniture well and have an enormously hard-working, upbeat and positive team who consistently demonstrate their skill and dedication.”

Last year Ergoform was split and registered as two separate entities, one doing manufacturing and the other marketing and sales. Any staff member who has worked for the company for longer than five years has shares in the marketing division and today 60% of the staff are shareholders in the business.

Another part of the business sustainability strategy is to ensure that everyone, particularly its new shareholders understand productivity and how a business works. The first phase of this personal development programme was rolled out in January and focused on life skills and the second phase commenced recently with courses in financial planning.

Productivity and workflow

Ergoform is a highly integrated company. Everything is done in-house, from conceptualisation to wooden and steel components, upholstery, assembly, and finishing. It has even designed its own branded electrical fittings and desk inserts.

Leon explains that unlike kitchen manufacturers, most of Ergoform’s products are customised and manufactured in small batch runs and having every part of the production under one roof is the best way to control output volumes and quality.

“We are a results-driven company with an active productivity improvement system. In 2014, we received Productivity SA’s National Productivity Award and have since achieved better results. The focus now is on batch manufacturing and the flow of work.”

The company has designed and built a sophisticated system that includes a network of radio frequency identification (RFID), tag readers. An RFID tag will be attached to all components that are manufactured and will communicate with electronic readers. Monitors will be installed at key points and staff will be able to track the progress of every component and completed unit through the production process.

Biesse machines

Ergoform has an advanced manufacturing process and most of its machines were supplied by Austro Engineering’s branch in Cape Town. This includes a number of panel saws, a Biesse Skill 1836 GFT nesting CNC machine, a Biesse Skipper V31 CNC multi-borer and a Biesse Artech Cosmo carcase press.

Panotec

The latest addition to the factory is the Panotec box-on-demand machine. Panotec is an Italian company represented by Austro in South Africa, which specialise in the production of machines that can produce customised cardboard boxes for single furniture items and large runs of products.
The founder of the group was Giancarlo Selci, and his vision is now carried forward by Roberto Selci, the CEO of the group. He has succeeded in strengthening the company by surrounding himself with people with strategic skills and expertise, thus increasing both the knowledge and technology within the company.

Today, Biesse is an international group. This expansion is based on its philosophy that technology is innovation, and
AUTOMATION

INTEGRATE, CONNECT, DIGITISE.
that in turn, innovation is only truly possible if a company has a future focus on what it can create based on what it can conceive and imagine.

Frederico Broccoli, the wood division sales director explains that every innovation developed by Biesse over the course of its history, was inspired by the future “The future is a guide for innovation and brings it to life.”

You are guided by what the market is currently demanding, and we will continue to develop software, promote plant construction, and further increase the flexibility of our machines and business units,” explains Broccoli. “None of this is possible without our employees who are a very important part of our investment.

For years, we have hired new employees and continue to train them on a regular basis to keep them up to date. We founded the Biesse Academy specifically for this purpose. In order to ensure that all installed machines and plants worldwide function smoothly, we also continuously train service technicians.”

Paolo Tarchioni, Biesse’s innovation director, comments that the Internet of Things, robotics and artificial intelligence are and will be key players in a continuously evolving world. “What role will the new technology play in designing strategies and redesigning flows?” he asks?

He says the answer lies in harnessing these technologies to come up with new services and make decisions based on the results of algorithms that process millions of data in just a few seconds. “However, all of this can only create value if we maintain the central role of humans, who must play an increasingly decisive role in data interpretation.”

Commenting further, Tarchioni says “Today we are talking about interconnection between software, services and platforms, as can be seen with the Digital Hub, a dedicated area within the Biesse stand at Ligna 2019.”

Austro Engineering, Biesse’s Africa representative and WoodSA will report back on Biesse’s achievements at Ligna and we will delve deeper into Biesse’s past and its future plans in the June issue of the magazine.

Quotes from Roberto Selci, CEO of Biesse Group:

“We are currently experiencing a real revolution, an industrial transition from “iron” to digitalisation, as I like to describe it. We must manage this in the best way possible in order to ensure that we can continue to grow.”

“We believe in the potential offered by Industry 4.0 and are making significant investments towards the creation of products and services that will help the manufacturing world evolve and grow.”

“The digital factories of tomorrow will be able to trace and identify every component, enabling automatic feedback and the creation of process statistics. We are moving from mass production to mass personalisation.”

“We are at the dawn of a new horizon, a new world that will no doubt bring a host of benefits.”

Roberto Selci, CEO of the Biesse Group.
High-end design featured at Decorex 2019

This year’s five-day Decorex Cape Town exhibition drew 37 768 visitors through the doors of the Cape Town International Convention Centre, an impressive 11% increase in trade visitors seeking quality décor products and services.

The theme of the exhibition was “Designing for Africa - feels like home” and visitors were immersed in all the colours, styles and dominant trends emanating from the African continent through a number of innovative features.

“Cape Town’s untamed creative spirit was really evident at this year’s show,” said Sian Cullingworth, portfolio director at Reed Exhibitions. “Visitors were able to experience Africa’s vision of current design trends and the impact this continent is having on the trajectory of interior design through a number of key features. It was an impressive overview of the superior creative talent emerging from Cape Town.”

An evident passion for African-styled interiors saw the Decorex Designer Spotlight by Danela Conti perfectly syncing with this year’s theme. The Apartment Project by SHF showed how much can be done with furniture to create modern local apartment installations. And, in celebration of its 40th anniversary, the dynamic team from Sevens curated...
Ian Perry of Homewood in the KZN Midlands, introduced Capetonians to his company. Homewood recently won the product design award for its Kopanya kitchen unit at the DTI National Furniture Design Competition.

The ultimate Decorex Urban Living Trend House.

Taking a look at the heart of the home was The Trend Kitchen with Space Interiors where curved cabinetry, sleek styles and storage-enhancing techniques were a focus.

The Kitchen Design Project by the Studio Collection gave four industry experts the ideal chance to show off. CCMI, Inside Out, Interior Fusion and HH Joinery and Carpentry interpreted the show theme through stunning kitchen installations with CCMI awarded the top design for the Kitchen Design Project 2019.

Aura Furniture & Décor, Lalegno, The Room, and Headboards for Africa incorporated their latest handcrafted products into room settings for the Bedroom Project. For the younger generations, Simply Child and Kids Emporium crafted the Children’s Playroom and Décor Project, a nurturing space with innovative and adaptable furniture solutions.

Industry experts engaged in a CPD-accredited, free-flow forum - InStudio Trend Theatre by ABSA – to share ways of commercialising and expanding business opportunities.

The theatre welcomed international property investor, Andrew Walker; Robyn Curko of Lusso Luxury Living; South African trend forecaster and creative business consultant, Dave Nemeth; design and creative industry professionals from Inscape Education Group, Thulare Matlaba, Miguel de Figueiredo and Leigh Wright and interior design visionary, Paige.

The creative passion continued into 100% Extraordinary that took place within the 100% Design South Africa pavilion. Visitors experienced ultra-unusual design creations in furniture, textiles and ceramics.

This design inspiration carried over into the Fabric Trend Bar where high-end fabric suppliers - Skinny Laminx, Shine Shine, Lula Fabrics and Fabricnation – featured the best in interior design fabrics.

Cape Town designers put it all on the line at this year’s exclusive Designer Pavilion as renowned South African creatives, Imagenius Interiors, Gordijn Studio and 8 Degrees South, LIM, Ethereal Bound Journal and S+CASA Leon by Leon at CCXIX showcased their signature products.

Judges of Exhibitor Stands Awards said they were overwhelmed by the superior quality and sophisticated designs featured at the show. The winners included:

- Best Overall Stand - Caeserstone
- Best Shell Scheme - Boland Cellar
- Most Interactive Stand or Product - Homewood
- Best Kitchen & Appliance Stand - The Kitchen Studio
- Best Bathroom - WOMAG
• Best Décor - 100% Extraordinary
• Best Furniture - Roche Bobois

The winners of Certificates of Excellence included:
• Sevens
• Swartland
• Minima
• Redesign Interiors
• American Shutters
• Osterwald & Sons Cabinet Makers
• Curves & Bevels Designer Kitchens

The Kitchen Studio took top honours at the 19th annual Decorex Durban exhibition for the best overall stand award. The judges commended The Kitchen Studio for its “well-executed stand design, great use of materials and textures, and generally stunning space, all presented by friendly and helpful staff members”. Sian Cullingworth of Reed Exhibitions handed the award to Klyne Maharaj from The Kitchen Studio.

Osterwald & Sons exhibited their carefully crafted tables with gold leaf inserts.

Anything is possible with artists, 3D design and wood.
Lake Kariba inspires new chair design

Influenced by Lake Kariba and the minimalism movement, Woodbender’s new Kariba chair is a pared-back end-product with African flair

An experimental design process has resulted in a chair with fewer parts and joins, giving it a degree of durability and strength demanded by high traffic applications.

“Simplicity is the ultimate form of sophistication and we kept this in mind when designing the Kariba. There was a need in the market for a dining chair that is both compact and comfortable, and we felt that a simple silhouette with a slightly wider seat would be the answer,” explains Woodbender research and development manager, Grant Longmore.

For this new addition to their range, the Woodbender design team looked to the north and drew inspiration from Kariba, a small town nestled on the shores of beautiful Lake Kariba in Zimbabwe. World-renowned for its raw natural beauty, Lake Kariba offers visitors a juxtaposition of tranquil waterways and rugged landscape, and the team really wanted this to be reflected in the design of the chair.

The Kariba chair interprets this contrasting beauty in its form and functionality. This compact, open-back chair takes up less space than some of the larger dining chairs on the market but does not sacrifice comfort. With a tilted backrest and sloping arms, the Kariba allows for easy relaxation around the dining table during a meal and long after it’s ended.

Crafted with the ongoing minimalism movement in mind, the design team envisioned a pared-back end-product with African flair. The Kariba is an amalgamation of the two styles, staying true to the trend forecast while incorporating a distinctly Southern African aesthetic.

The original version of this story appeared on May 6, 2019 in Leading Architecture & Design.

Multi-function portable work bench launched

Festool has introduced the MFT Kapex portable work bench with a perforated top and adjustable foldaway legs that turns into a sawing station when combined with power tools

Vermont Sales is the supplier of Festool products to leading retail outlets and says the table complements all Festool power tools and is perfect for the new compound mitre saws Kapex KS-88 and KS-120.

The work table weighs 19kg and its dimensions are 869mm x 581mm. The work height is 180mm when the legs are folded and 790mm when the legs are extended. It has a load capacity of 120kg.

The bench height of 79cm ensures ergonomic working conditions and the space-saving foldaway legs make it easy to store and carry. It becomes a genuine sawing station when combined with the trimming attachment, crown stop and clamping set and is used as a base frame for the Kapex tools. The clamping kit SZ-KS is required for fixing.

The Festool Kapex sliding compound mitre saw is either inserted into the holes provided on the MFT Kapex table or it can be tightly screwed to the table using the SZ-KS clamping kit. The multifunction table has rubberised feet, one of which is height-adjustable for offsetting any slight unevenness in the floor.

According to Vermont Sales, the Festool Kapex KS-88 and KS-120 sliding compound mitre saws are an ergonomically perfect match because the workpiece sits at a height of 90cm, which promotes healthy working conditions.

For long workpieces, the KA-KS 120-R and KA-KS 120-L trimming attachments can be combined with the KS 88 or 120 sliding compound mitre saws and attached to the table. This allows for precise work up to a length of 2.30m.

Vermont Sales points out that you also require the AB-KS 120 (2x) crown stop and the SZ-KS clamping kit to secure the attachments. Even simpler as part of a set, the KS 120 EB set contains the machine, table and trimming attachments, and the crown stop and clamping kit.
PREMIUM BRANDS SUPPLIED & SUPPORTED BY AFREQUIP

Log Max
Tigercat

Gierkink
Nokian Tyres
Morbark
Olofsfors

AFREQUIP
PREMIUM QUALITY FORESTRY EQUIPMENT

Brendan Moore: Tel: 033 386 5034; Cell: 072 708 9091
Email: brendannm@afrequip.co.za; Website: www.afrequip.co.za
TECTRA 6120 power – the variable all-round solution for your operations

- Double-finger workpiece clamps
- Angle pressing device (program-controlled)
- Solid air cushion table
- Trimming stops

Agent:
HÜSTER MACHINETool COMPANY
Your partner in Southern Africa
www.huster.co.za