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Southern African Institute of Forestry

Delivering a professional service to forestry

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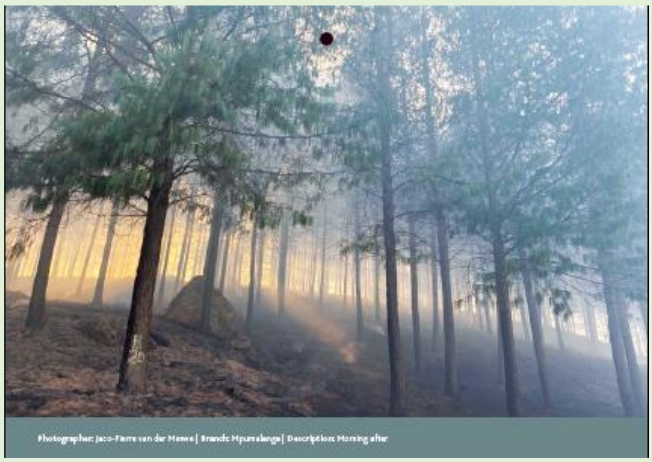


SAIF Calendar Oct. 2021: Photographer: Jaco-Pierre van der Merwe: Mpumalanga Branch : "The Morning After"

Editorial

Spring has sprung and the country is back in Level 2 of COVID -19 Lockdown in terms of the Disaster Management Act which has been continuing for more than 18 months at various levels since March 2020. We have become used to the so-called "New Normal" of wearing masks in public, spending hours in Virtual meetings which lead to a new disease called "Zoom fatigue" by many.

Sadly COVID-19 is still taking its toll on family and friends and also amongst the forestry family. We mourn the death of Dave Malloch Brown (tribute elsewhere in the Newsletter) and other stalwart members of the SAIF. We have also received the news of the passing away of one of the founding members of the SAIF namely Neville Denison. Our condolences not only to the next of kin of the deceased SAIF members but also to all readers who have lost loved ones and friends during the recent months.

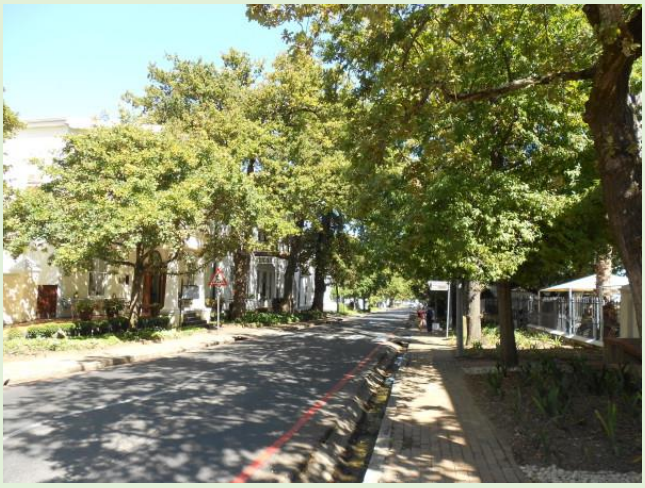
On 24 September we also celebrated Heritage Day or as some refer to it, "National Braai Day" where we South Africans across cultural diversity celebrate our unique habits and customs which contribute to the reference to South Africa as the Rainbow Nation which was reportedly first used by Archbishop Desmond Tutu who celebrated his 90th Birthday on the 7th of October 2021.

Sunday October 17 2021 is National Garden Day in South Africa where people relax & enjoy their gardens with other people

"Gardeners and florists are the happiest of all the professions ... nearly twice as happy as people in more prestigious and better paid jobs." ***PROF. PAUL DOLAN***

From the President's Desk
Mystery Oaks

The town of Stellenbosch named after Simon van der Stel celebrated its 342nd year in 2021 and is the second oldest town in South Africa. The town is well known for its large number of English Oaks (*Quercus ruber*). The first oaks were planted by the Free burghers who settled there in 1679 and according to informed sources, Simon van der Stel had a keen interest in Botany and commissioned the planting of some 12,000 European Oak trees in and around Stellenbosch. This gave rise to the town also affectionately known as "Die Eikestad" in Afrikaans (freely translated : City of Oaks). To this day the local weekly newspaper is still known as Eikestadnuus . This is clearly a legacy left by our forefathers and something worth celebrating as part of our heritage.



One of the many oak-lined streets in central Stellenbosch

Sadly, this 300-year-old legacy is now under a severe threat due to the presence of the infamous Polyphagous Shot-hole Borer beetle (PSHB)- *Euwalleacea fornicatus*. For those of us who studied in Stellenbosch it is perhaps not completely strange and unexpected as many of the old oaks have been very badly infested with fungi and diseases for years . This time however it seems that the English Oaks in particular will struggle to survive. This is due to the fact that the English Oak (Quercus ruber) in particular has been identified as one of the reproductive hosts by FABI in which both the beetles and associated fungus (*Fusarium euwalleceae*) establish and the beetle successfully reproduces.

It is further said that in many cases the reproductive hosts will eventually be killed by the fungus.

This has been witnessed in George and other Southern Cape towns over the past three years where numerous old oaks had to be felled and removed after die-back. Some other English oaks are literally "hanging in" and seemingly will suffer the same fate as can be seen from the photos shown below.

English Oaks in poor state following PSHB infection

Two other species of oak trees namely pin oak (*Quercus palustris*) and Cork oak (*Quercus suber*) also appear on the list of "reproductive hosts" . Surprisingly, the pin oaks (at least at this stage) still seem to be less susceptible to PSHB as is evident from the photo taken of the pin oaks in their fresh spring attire in George.

Pin oaks lining Caledon street in George

Altogether 28 exotic and 19 indigenous tree species are listed in the latest available list of PSHB Reproductive hosts prepared and published by the Forestry and Agriculture Biotechnology Institute (FABI) at the University of Pretoria. Most of these trees are well-known and common throughout South Africa.

Of the reproductive hosts fortunately only Black wattle *Acacia mearnsiii* and perhaps some of the four Poplar species listed, are grown commercially by the forestry industry in South Africa. One of the indigenous species on this list, is the very well-known "keurboom" (*Virgilia oroboides* subspp *ferruginea*) which is a prominent pioneer species in the indigenous forests in the South. The list is however not finite with more species being added. As information becomes available from research and observations made by experts and students and even members of the public.

There is however a second list containing the so-called "non-reproductive hosts" with 41 exotic and alarmingly 42 indigenous species listed! Some of the indigenous species on this list are the baobab , Outeniqua yellowwood, cape ash and cabbage tree. Several commercially grown fruit and nut trees appear on this list namely peach, guava, macadamia and apple. The good news is that despite these trees being attacked by the PSHB and its associated fungus, beetles do not establish breeding galleries and the fungus may not cause disease and trees infected are not likely to die.

It is still a mystery why some oak trees suffer from PSHB attacks and die and others just a few meters further seems to be healthy and thriving. The question arise whether apart from inter-species difference in susceptibility, there could also be intra-species differences . Another example is the plane trees also commonly cultivated in S.A of which the English plane occur on the reproductive species list and its American counterparts (American & Californian planes are listed as non-reproductive hosts.

According to South African expert and member of the SAIF, Prof Wilhelm de Beer from FABI at Pretoria University, the problem with host lists is that there is a continuum of host tree responses within genetically diverse populations of trees , stress factors on trees are conducive to infestation and that a non-reproductive host can become reproductive under severe stress.

Healthy oak trees sporting their young spring leaves

It appears evident that there are currently more questions than answers and that we should all be alert to this fast-spreading beetle and its fungal symbiont.

Control and management include good decisions which can reduce the impact of infestations eg. Cutting down & removing infested reproductive hosts. This should however be done in an orderly and well-planned way namely removal to dedicated dumping sites where treatment eg. Burning or chipping can take place. These trees should be replaced with resistant trees and urban plantings should be diversified. Chemical treatment can be considered for valuable individual trees.

Perhaps Stellenbosch will have to one day in future, change its name in future to another PSHB resistant tree species. Hopefully this will not be necessary and at least some of the oaks will survive.

References:

-https://www.visitstellenbosch.org/10-things-that-will-surprise-you-about-stellenbosch/
-PSHB Host List published by FABI
-Presentation delivered by Prof. Wilhem de Beer June 2021
-For updated information: www.fabinet.up.ac.za/pshb
- For enquiries contact: pshb@fabi.up.ac.za

Women in Forestry

Ms Makhosazana Mavimbela, Executive Director of the Forest Sector Charter Council

Khosi is the current Executive Director of the Forest Sector Charter Council (FSCC/Council), an institution mandated to facilitate, monitor and report on transformation within the South African Forestry Sector. She started working for the FSCC in 2008 as a Researcher, building on the experience she gained during her her MSc.

Khosi's deep understanding of the role of Council and the Amended Forest Sector Code, commitment to transformation and empowerment in particular, led to her appointment as an Executive Director in 2018. Her role is focused on governance, strategy and managing and providing leadership in portfolios such as research, policy alignment and stakeholder interaction and relationship. Khosi also interrelates with industry, community and government representatives and provides guidance on transformation. (Acknowledgement: Forestry South Africa)

SHE IS FORESTRY

Early Bird Registration : Forest and GIS Remote Sensing Conference : 9-10 December 2021

The early bird registrations for the Forest GIS and Remote Sensing conference are open. The conference is scheduled to take place on the 09 and 10 December 2021 at the Hilton in Durban. Book today and qualify for the discount when you pay before the end of October. In order to take this opportunity please find attached the details to book. We will send you the invoice with the discount having booked. A full programme with topics and speakers will be sent to you soon. Please feel free to contact us should you need further information.

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Tribute
Dave Malloch-Brown

On Sunday the 12th of September, SAIF & Reforest'Action has lost one of its collaborators.

Dave was a loyal SAIF member since 2001. He will be dearly missed by all his colleagues and friends.
The following tribute from one of his York ex-colleagues Nico Monnig : "It is sad that David Malloch-Brown passed away in September due to Covid. He was in a good state until the Covid got to him. He has lost his battle against COVID-19.

David was a respected forester having spent most of his career round-about Sabie in Mpumalanga. He spent a lot of time dealing with detail regarding managing and caring of commercial forests which led to very positive outcomes. He was also very good at dealing and helping people and later in his life he also got involved as a part time honorary ranger in the Kruger National Park."

Dave Malloch-Brown based in South Africa, was one of *Reforest Action's* most experienced international correspondents. Despite the distance, he has managed to create professional but also human bonds with his colleagues. As such, he was fully part of the team and truly appreciated. Dave has had an outstanding career. He was passionate about forests, trees and used to volunteer to preserve forests in South Africa. He was also a birdwatcher.

Dave will definitely be missed.

Our hearts go out to his family and relatives, to whom we wish to express our deepest sympathy.

Tribute
Neville Denison (14/04/1936 - 26/09/2021)

Neville Denison (1956/57; US 1961) was a highly educated forester with an international reputation. Neville was a well-liked, quiet spoken gentleman who was keen to share his knowledge as a mentor and a good friend to many. Unfortunately he had serious health issues in his later years but he will be remembered as one who was always friendly with a ready smile and a hearty handshake.

His career started as a pupil forester at the College for Foresters at Saasveld in 1956 where he performed so well academically that he was awarded the prestigious Schlich medal in gold at the end of his second year in 1957. This gave him the opportunity to study forestry at the University of Stellenbosch, graduating with a BSc degree in Forest Science in 1972. He spent his first two years of working for the Department of Forestry at D.R. de Wet, the first tree breeding station in South Africa, started by Aart Juriaanse with the backing of Hilmar Lückhoff, which became the D.R. de Wet Forest Research Station. Two years later Neville returned to Stellenbosch to study for a BSc(Hons) degree awarded in 1965. He then started to work as a research officer for SAFI in Sabie, applying the knowledge of genetics he acquired with the Department of Forestry. After 5 five years he started further study under the guidance of the eminent geneticist Bruce Zobel at the North Carolina State University in Raleigh, where he completed an MSc on the provenance variation of *Pinus patula* in 1973. When he returned SAFI had changed to Mondi and for the next twenty-six years Neville was the Manager of tree improvement, research and nurseries for Mondi, retiring in 1999. He didn't rest on his laurels he remained active as a consultant.
Neville will be remembered for his active participation in the activities of the South African Forestry Tree Breeding Research Working Group (with inter alia Gerrit van Wyk, Derek Donald, Keith Richardson and Kay Nixon), Camcore, the Southern Tree Breeding Association and TPCP/FABI. A remarkable gentleman and a good friend has left an indelible mark on many of us.
Acknowledgement to : Prof. Brian Bredenkamp

Weather you believe it or not!
By Rob Thompson

I recently overhead a colleague castigating a fellow associate. “He ought to have known that I have better things to do than stand around talking about the weather all day!” she complained. At the time I didn’t realise the import of what she had said and exited earshot, to go about my business.

Soon thereafter, I was with two colleagues in field, waiting for the arrival of a touring group of high school geography teachers, due to visit our plantation estate. One casually glanced skywards and declared “Ah cirrus clouds… we’re in for a change in the weather”.
“Yip” responded my other colleague “Could be the front coming in from the Cape”.

When the touring group arrived, we commenced with a general overview of what forestry was all about, the science behind the industry and the many aspects that we have to contend with whilst managing a natural resource responsibly. The day was hot, and we took shelter in the shade of a young gum compartment whilst talking. Perhaps it was the heat of the day or listening to my technical colleague talking about frost resistant wattle clones and gum selections required for extreme climatic conditions, but I suddenly realized the irony of the statement that I had overheard days previously. People can certainly do far worse than speak about the weather given that it is central to our wellbeing and is arguably more so than most in the lives of the forestry practitioner.

Sadly, not many other people seem to understand our inherent and overall reliance on weather, and barely give the weather any thought other than deciding on whether to wear a jacket for the day, or not.

Reading weather signs is instinctive to most production foresters, as attested to by my colleagues’ reading of the cirrus clouds. Incidentally his casual weather forecast came true with cold and wet weather moving in literally a day later. Weather patterns impact on forestry operations in many indirect and often overlooked ways and it is opportune to reflect on these from time to time, rather than remain complacent to our reliance on (rapidly changing) weather systems.

Our touring group presented the ideal audience against which we could emphasize the key importance of weather…..and they thought they were there just to see how we plant trees! What a wonderful opportunity to reflect on weather all whilst explaining its Interaction with our operations, to outside parties.

I was discussing wattle stripping with the visiting teachers and before the more basic of those present started to imagine low lights and seductive music, I hastened to explain that the onset of warm weather after the first seasonal rains is key to enabling bark removal from the wattle logs allowing further processing of both bark and timber. Any delay in the onset of this critical weather’ pattern, inevitably plays havoc with harvest and supply planning. “To have the trees and a ready market, but have no access to bark-free timber is one of the most frustrating challenges a wattle grower has to deal with” I explained.

Of course, the weather gods have a sense of humour and they generally play havoc on what should be a simple seasonal change from winter to spring and the onset of the growing season.

As has recently been the case in KZN it rains, then rains, then rains more, and continues to rain. Did I mention the rain? Intermittent heat units initiate sap flow and new growth and when possible, timber harvest to all weather depot occurs. The rain gods then take up the challenge and quickly alter all existing understanding of what constitutes an all-weather depot. As we watch our timber stacks float around on what was once a carefully hardened depot surface, official notice of vessel arrival is received and the urgent need to chip and load. The vehicle that can transport timber out on the soggy state of the forest and District roads under such conditions, still needs to be invented.

Highly skilled in international diplomacy, our marketing guys appeal to highly reluctant clients to delay vessel arrivals as our chippers at the mills chip pure clean air. But wait, the weather gods have outplayed themselves…high seas prevent port access and we score a day or two to barge our logs Canadian style down the N3 to port.

Crisis averted, we complete the cargo…only just, and wave fond farewell to the departing vessel only to see it passing the next inbound vessel ready to repeat play yet again!

So what do you plant in their place? asked a teacher looking at a freshly harvested site. Our technology guru went on to explain the scientific tree breeding and selections behind the trees designated for specific sites and changing climatic conditions. "Who would have thought?" commented a young chap thoughtfully, "this places a whole new layer onto the concept of breeding!". Before the conversation plummeted into depravity (call me if you don't yet know what geography teachers are like), we explained the rapidly increasing need to produce material capable of outsmarting and staying ahead of the climate change gods. These gods are real and they are intent on undermining all current knowledge and experience of climate with a whole new palette of variances. Plant a normal wattle here and it gets frosted. Plant a selected frost resistant wattle in lieu and it gets rust. Plant a frost and rust resistant wattle and it gets eaten by a looper caterpillar whilst out enjoying the very early onset of spring. The surviving wattle remain behind a protective shield of external firebreaks, clean and extensive valley bottoms, internal breaks and an array of rapid response vehicles and proto teams, lest they get nuked by a climate induced fire. Never a dull moment in forestry.

Under the shade of the closed canopy, the undergrowth on which we stood was well under control and our visitors commented on the lack of weeds. "Don't believe that for one minute" the forester in charge interjected. "You can literally watch the weeds grow in a newly planted compartment in the warm weather, so we need to spend a heap of money on weed control and stand management."

"I feel for you" said the young guy who's mind was temporarily off of breeding, "I've gotta weed the veggies regularly, or my wife gets the jig!".
"You said it" responded the forester, "but on the scale at which we operate, weeding and silviculture is a mammoth task and very expensive. We need to keep at it and work according to a set plan to get the young stands to canopy closure. Weather conditions sometimes make this essential work difficult to complete."

One astute lady sitting atop a stump commented "So weather can be both friend and foe to the forester. Whilst you are reliant on it for tree growth, weather can also hamper your operations considerably. As teachers all we need do is put on a rain jacket and we good to go!" Her comment was quite meaningful in context of the weather reflection on the go. Many other industries and professions merely tolerate the weather and otherwise ignore it as being of little significance. Forestry success on the other hand, is intrinsically linked to both prevailing and forecast weather patterns. We are arguably even more linked to weather patterns than the agricultural industry, given the extensive mechanical operations that are conducted along the supply chain within extreme landscapes.

Seeing our industry through the eyes of others is always…well…an eye opener! We all ought to do more introspection on aspects that affect us and the industry no matter how basic they may seem. Reflection prevents complacency and at worst provides opportunity to actually recognize just how far the industry has come over the years.

At best we get to see ourselves as significant contributors to an evolving unique science and can appreciate the innuendo behind wattle stripping which many others simply cannot! There comes also the realization that a weather discussion is indeed a positive way to spend some time.

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Thank you to Forestry South Africa for their
Continued Support to the SAIF

FORESTRY SOUTH AFRICA™

ISTF Update 21 September 2021

Third Asia-Pacific Urban Forestry Meeting (APUFM) 25-29 October 2021. The meeting will be held virtually, with the objective to facilitate the exchange on the latest trends and development of urban forestry in the region, and to discuss the implementation of the Seoul Action Plan http://www.fao.org/forestry/48505-0731c0178ec4de706c28cfc806c56fe1f.pdf (launched in 2018). Information can be found at at http://www.fao.org/asiapacific/events/detail-events/en/c/1799/ and http://www.fao.org/3/cb6631en/cb6631en.pdf. Register at https://fao.zoom.us/webinar/register/WN_PUAnpcveSOapO2gojlzJZg

Other presentations sponsored by the Forest History Society can be found at https://foresthistory.org/education/presentations-and-discussions/unprecedented-seasons-series/ Check out these interesting talks!

. ISTF online resources. The current online resources for ISTF include:

- New ISTF website: https://tropicalforesters.org/
- Old ISTF web page, still at http://www.istf-bethesda.org/
- ISTF Newsletter (Available at: http://www.orrforest.net/saf/).
- ISTF Updates at this link
- ISTF InfoLinks at this link
- ISTF organizing documents at this link

The ISTF Facebook group page at: https://www.facebook.com/groups/2262122534/

- The ISTF Linked-In group page at: https://www.linkedin.com/groups/12150640/
- The ISTF Twitter handle is @tropforester; https://twitter.com/tropforester
- The ISTF YouTube channel is at YOUTUBE CHANNEL
- ISTF-North Carolina State University: https://research.cnr.ncsu.edu/sites/istf/ , https://www.facebook.com/NCSUISTF/
- ISTF-Rwanda Chapter: Twitter: @IstfRwanda, Facebook: @ISTF-RWANDA
- ISTF-Yale University, which sponsors the annual Yale ISTF conference: http://istf.yale.edu/ , https://www.facebook.com/yalefesistf/

ISTF membership.

ISTF now stands at over 1950 members.

We would like to invite you to join the Central International Society of Tropical Foresters (ISTF). The organization has been reactivated. Anyone with an interest in tropical forests and forestry is encouraged to join! With its focus on being a communication network, ISTF connects members with each other and recent work in the field. ISTF was founded in the 1950s, and "in response to a worldwide concern for the fate of tropical and subtropical forests, ISTF is committed to the protection, wise management and rational use of the world's tropical forests".

So far, over 1900 people from around the world have joined. The newest ISTF Chapters are in Rwanda and Mexico, with at least six other chapters under development. The enthusiastic response we have seen has been heartening, especially as the organization reactivates to face global challenges in inclusive and equitable ways. For now, ISTF membership will be dues-free. If you would like to join, please fill out the membership form at GoogleForms.

For questions and comments, please send a message to tropicalforesters@gmail.com. Please pass this message on to your contacts.

Stellenbosch University: Department of Forest and Wood Science

SU-FOR First Thursdays –

Please find the recordings of the latest presentation as well as the previous ones listed here

https://youtu.be/ojCJ4pCx8Xs - â€˜Pine thinning methods: operational productivity and residual stand damage [Munyaradzi Makoto - Stellenbosch University] (07/10/2021)
https://youtu.be/LkrMi6_-Gqo - 'Post-thinning control of harvester operator consistency and adaptability using UAV derived imagery[Hugo Zandberg [Stellenbosch University] (02/09/2021)
https://youtu.be/gnUATHCTro8Modelling - The effect of stand density management and environmental variables on Pinus patula wood propertiesâ[Justin Erasmus - Stellenbosch University] (05/08/2021)
https://youtu.be/KbEUwXNIjFI - Concept and application of Depth-to-Water maps in forestry - [Marian Schoenauer " University of Gottingen] (03/06/2021)
https://youtu.be/uhnPoPehJI0 - SU FOR First Thursdays The POPI Act and the Benefits of a Common National Harvesting Data Portal [Rasmus Astrup - NIBIO] (6/5/2021)
https://youtu.be/l3DtCOhbG3M - Journey into using harvesting machine data in forestry [Dannyboy Seboa : Mondi] (1/4/2021)
https://youtu.be/0KfeDS8geuQUnlocking - The potential of harvester OBC data in the South African forestry value chain [Marius Terblanche" SU/Sappi] (4/3/2021)
https://youtu.be/D0Z2Inu62CI - Validating Harvesting Head Data with Terrestrial Laser Scanning [Anton Kunneke] (4/02/2021)

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Tree of the week: Afrocarpus falcatus – Outeniqua yellowwood

If you are looking for a fast growing screening tree for a large garden, *Afrocarpus falcatus* is a suitable option. This tree has been reported to be the fastest growing and the tallest of the Yellowwoods. It can reach a mature height of 46m in its natural habitat but will be much smaller [about 15m] if planted in a garden. Its distribution in South Africa stretches from Limpopo, Mpumalanga, Kwazulu-Natal to the Southern Cape. The tree is dioecious [male and female parts are on different trees]. Outeniqua yellowwood has a long life cycle of about 600 years.

Leaves of this tree are spirally arranged with smooth margins and tips that are sharply pointed. The Outeniqua yellowwood flowers from September to May. The flowers appear on the tree in form of cones. Fruiting occurs throughout the year peaking from December to January. The fruits are spherical, up to 17mm in diameter.

This attractive tree can be planted in a group lining a driveway thereby creating an avenue of trees. It can also be planted as a windbreak or as a container plant on a patio. It is a great timber tree of South Africa. The fine textured, pale yellow to pale yellowish brown wood, lacks resin and is easy to work with.

Outeniqua yellowwood is frost hardy, wind resistant and requires water as it naturally occurs on misty mountain slopes with high humidity. It also prefers a well-drained, deep, humus-rich and light-textured soil.

Source: Website: www.suntrees.co.za

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BIRTHDAYS	OCTOBER
JOUBERT J.H.L.	VERRYN S.D.
BIGGS S.	ALADE A.A.
JOOSTE A.	KäTSCH C.
CONRADIE J.P.	KAPTEIN N.C.
KAMFER W.	VAN ZYL S.J.
MULLER P.H.	BALLANTYNE D.
MARWICK P.C.	KASSIER H.W.
RUSK G.D.	DU PREEZ B.
GOUS D.J.R.	NAIDOO S.
TSHANGISA L.I.	DU PLESSIS M.

Wishing you Everything of the Best for the Year Ahead !