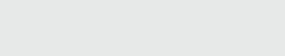
SOUTH AFRICAN SOUTH AFRICAN JUNE 2021 EVERYTHING A SMALL FARMER NEEDS





Published Monthly by





Tel: 011 979 5088 or 076 176 7392

Email all enquiries to info@sasmallholder.co.za

Publisher & Editor: Pete Bower Deputy Editor: Catherine Bower Research Editor: Vanessa Bower

Advertisement Sales: Jackie Browning

082 955 3162





Copyright

Title and contents protected by copyright. No part of this publication may be reproduced or stored in any form whatsoever without the prior written permission of the Publisher.

Disclaimer

While every care is taken to ensure the accuracy of the information in this journal, neither the Editor nor the Publisher can be held responsible for damages or consequences of any errors or omissions.

The Publisher does not stand warranty for the performance of any article or service mentioned in this journal, whether in an advertisement or elsewhere.

FEATURES

MOBILE USERS:

Tap any phone number to open your phone dialer.

Tap any email address to open your preferred email app

Tap any WhatsApp and social media icon to open the apps

Tap any ad to open the advertiser's website

DESKTOP USERS

Click any ad to open the advertiser's website Click any email address to open your email programme Click any social media icon to open the webpage

PUBLISHED MONTHLY NEW MISS A COPY!

To receive notification of each edition by email...



To receive your copy by Whatsapp.....



To receive your copy by Telegram.....



To read the magazine on our website at any time, or to download it as a PDF.....



EDITOR'S COMMENT

Welcome to the SA Smallholder digital magazine

elcome to the *South African Smallholder Online*, the new national ezine for smallholders, small farmers and anybody with an interest in country living. This ezine is a natural progression of a printed monthly magazine that, over its 21-year history, became a firm favourite among rural residents in Gauteng, the *Gauteng Smallholder Magazine*.

Although it was always part of the development plans for the *Gauteng Smallholder* to expand its coverage to other smallholding areas of South Africa, it is only now that the internet, and more importantly the adoption of smart phones, tablets etc, has made it not only feasible but, we believe, a necessary step forward.

You will see, for example, as you scroll through the stories below, that the layout is simple and straightforward, rendering it possible to read even on a smart phone screen \sim without having to scroll left and right and up and down.

Also, you will see that all the advertisements are rendered clickable. To be taken to the advertiser's website simply tap on the ad. To make a call or send an email to the advertiser simply tap on the number or the email address given, and either your phone dialler or your preferred email app will open.

And, where individuals and companies are quoted in articles you will often find their contact details, in clickable form, at the end.

All of this is designed to put into your hands as much information on subjects that we know will interest you, in a convenient and easy-to-understand format.

To ensure you never miss out on an edition we offer three options: You can visit our website, www.sasmallholder.co.za each month and either read the magazine online or download a PDF like this one to read at your leisure. Or, if you register with us here we will send you, monthly, the magazine in PDF format via email, WhatsApp or Telegram.

Or, of course, by following us on Facebook you will see from our feed when the new edition becomes available each month. It's your choice.

On Facebook you also have access to our interactive group, Smallholders in South Africa, where you can ask questions of fellow smallholders, give advice to others, and post pictures of your successes (and failures) ~ a place where you will feel at home among other like-minded people countrywide.

Finally, an online magazine and internet publishing, and the as-yet undiscovered power of the devices which we hold in our hands every day, provides us all with a steep learning curve.

I invite you, therefore, to correspond with one of us (we are all smallholders here, too) and let us know what you like, don't like, need or can do without, and to make suggestions for editorial coverage and improvements in any facet of the publication.

So, until we hear from you, Happy Smallholding!

Pete Bower, Editor

Your Trusted Gauteng West Agricultural Realtors

ON SHOW

SATURDAY JUNE 5TH 10am - 2pm









LUXURY DEEP IN THE HEART OF THE COUNTRY

A labour of love where attention to detail merges with functionality to bring you this spectacular property that is everything a smallholding needs.

TJAART STEENKAMP

REAL ESTATE

Lock, Stock and Barrel sale for those who want to settle in quickly offering a stunning ranch style hobby farm boasting a five-bedroom main house, a one-bedroom guest house, and outbuildings nestled on an 8.5 Ha property ideal as an escape from city life to dabble with a few crops, rear some horses, or just kick back and enjoy the magnificent views with wild game roaming the boundaries.

Don't miss out & join us Saturday the 5th of June from 10am – 2pm.

Contact me for more details!

R 3 900 000

24

www.property24.com/forsale/tarlton/krugersdorp/gaute ng/12969/109750504



https://www.youtube.com/cha nnel/UCCTntw7i2VdJOQLoPo7 98Pw



https://www.facebook.com/ta nya.farmingsa









Tanya ISE MANUTURE PROPERTY OF THE PROPERTY OF

T: 062 149 3302
E: tanya.farming@gmail.com

WEATHER & RAINFALL

Mild winter on the cards for most of SA

outh Africans are in for a neutral winter. This is according to the SA Weather Services (Saws) which has predicted that the El Niño-Southern Oscillation (Enso), which was in a La Niña state this summer, will likely weaken and return to a neutral state by the southern hemisphere winter season.



According to scientists Enso typically does not have a major impact on South Africa in winter. The country's rainfall forecast indicates mostly above-normal rainfall during June and July, switching to below-normal rainfall for mid winter (July and August) for the Western and Eastern Capes, KwaZulu-Natal and inland provinces.

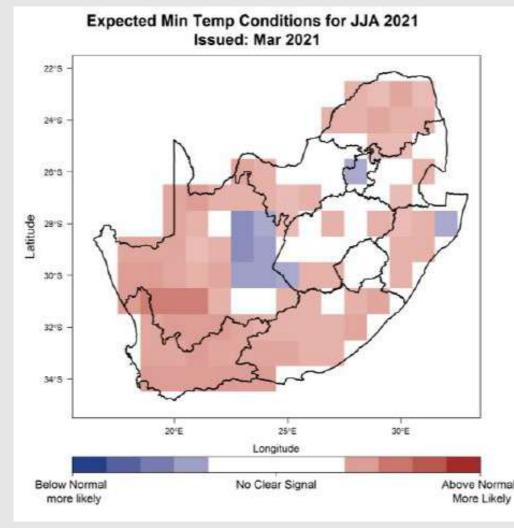
Predictions for the country's winter-rainfall areas are not yet clear but early estimates are that the Cape region will experience slightly below-normal rainfall between the months of June and September.

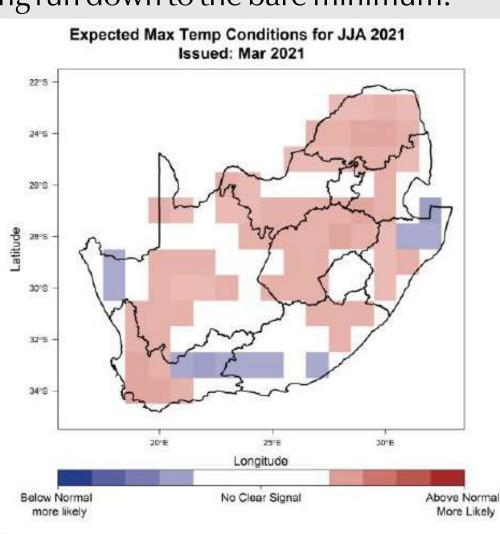
Temperature-wise, inland provinces can expect slightly below-normal minimum and maximum temperatures in June, averaging out over the rest of winter to give Gauteng, Mpumalanga, Limpopo and the Free State an overall above-normal winter temperature range.

The Northern and Western Cape provinces are expected to see slightly above-normal temperatures throughout winter. Currently, US oceanographers, who keep a close watch on central Pacific sea surface temperatures, which enable them to predict whether the world is headed for an En Niño or a La Niña, are undecided as to what the future will bring. Meanwhile, with the Eastern Cape continuing in the grip of a long, devastating drought, farmers in the region are struggling financially, and are resorting to extraordinary measures to stay in business, whatever it takes.

Bank records show a number of farms being used as collateral, and children are being taken out of schools because their parents can no longer afford school fees. Some farm families are finding their store cupboards running low on day-to-day necessities, and flocks and herds are being run down to the bare minimum.

In the citrus production area of the Gamtoos Valley a good harvest season has been under way, but farmers are concerned that if the drought doesn't break trees will begin to die and next season's harvest will be devastatingly small.





Maps courtesy SAWS

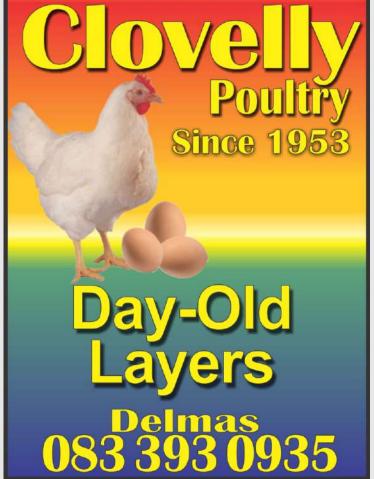
Bekostigbare implemente geskik vir die klein boer SKRAPER Lem is **1.5m wyd** Geskik vir klein trekkers 1.500 - 22 600 BOSSIEKAPPER Nou TWEE groottes; 1.2m, 1.5m wyd Sonder PTO Prys veranderings onderhewig aan staal pryse



- **Backup Power**
- Solar Borehole Pumps
- Solar Geysers
- Solar-friendly Appliances

www.solarm.co.za

Tel: 012 809 1525/1427 solarman@mwebbiz.co.za



Fruit Trees Olive, peach, nectarine, plum, almond, apricot, walnut, prune, pomegranate, pecan nut, apple, cherry, pear, fig, quince, mulberry, lemon and grape vines. **Shade Trees** Vrugtebome Olyf, perske, kaal perskes, pruim, amandel, appelkoos, okkerneut, pruimedant, granaat, druiwe,

Skadubome Vereeniging Douw 084 506 5125

pekanneut, appel, kersie, peer, vy, kweper, moerbei en suurlemoen





ALBERTON: LAWNMOWER CLINIC ALBERTON 011 907 8484 BENONI: BENONI MICA HARDWARE 011 845 2986 • MASTER MOWERS 011 973 5134 BENROSE: GREEN'S INDUSTRIAL SUPPLIES 011 614 0295 BOKSBURG BOKSBURG: LAWNMOWER RANCH 011 918 5771 BRITS: ENVIRO CHAINSAWS 012 252 2479 BRONKHORSTSPRUIT: BHS GRASSNYERDIENSTE 013 932 0531 CENTURION: ENVIRO CHAINSAWS 012 653 2479 • PRO-LAWN 012 663 3313 DELMAS: DELTOOL 013 665 3192 HEIDELBERG: MASAKHANE INDUSTRIES 016 349 6927 JONANNESBURG: TOOLTECH 011 683 1761 KEMPTON PARK: PRECISION MOWERS 011 391 0710 KRUGERSDORP: GP LAWNMOWERS 011 955 3610 OAKDENE: GLEN MOWERS 011 436 2220 PRETORIA: NICO'S LAWNMOWERS 012 548 4422 PRETORIA NORTH: CHAIN SAW MECCA 012 546 1061 PRETORIA EAST: LAWNMOWER LEGENDS 012 997 0464 • THE LAWNMOWER SHOP 012 809 0222 RANDFONTEIN: POLOMINO GROUP 011 412 7110 SANDTON: LIVINGSTONES GARDEN & HOME 011 802 4822 SPRINGS: MR LAWNMOWER & POOL 011 811 5067 VANDERBIJLPARK: SCHOLINGS INDUSTRIAL 016 931 1119 VEREENIGING: TL APPLIANCES & LAWNMOWERS 016 455 2595 • ZIKI'S OUTDOOR POWER SOLUTIONS 016 422 4502 WONDERBOOM: MIKETON TOOLS 012 804 7272 WYNBERG: MFANGANO SOLUTIONS 011 440 2072

NEWS

Possible end in sight for locust infestation

ith brown locust swarms devastating vegetation across large swathes of the Northern and Eastern Cape and Free State this year, farmers in the region



have been recollecting that the last such outbreak befell them some ten years ago ~ and some who remember that episode say it was nothing like as bad as this year's outbreak. Scientists, however, say that this year's swarms, while large, are nothing special, and are a result of rains last September and October, with follow-up rains thereafter, which encourages the emergence of the insects.

Brown locusts are endemic to the region, and every few years they emerge in huge swarms, sometimes many hundreds of square kilometres in extent, seeking food and devouring everything they land on.

And because the region is in the grip of a prolonged drought there is not much for them to pick and choose from, so they devour whatever they can, leaving a scene of devastation in their wake.

The swarms are highly mobile, having the ability to travel more than 100km a day. They are aided in their movements by strong winds.

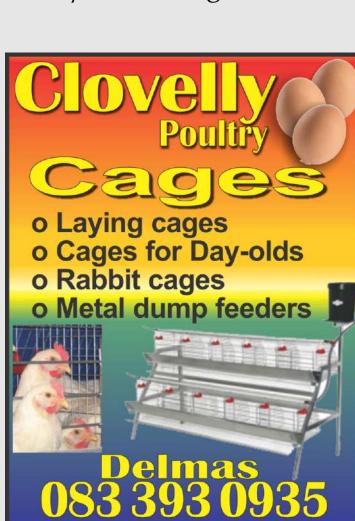
With the current swarms having moved across a wide swathe of the Karoo, as far afield as from Upington in the northwest to Hanover in the south east, the fear is that they will descend on the Eastern Cape in numbers, into a region probably currently hardest hit by drought of any in South Africa.

The current outbreak is expected to peter out as the weather cools with reports already indicating reduced numbers following a cold snap in early June.

Meanwhile, in Kenya, another country hard hit by plagues of locusts, a start-up business named The Bug Picture is working with affected communities to collect locusts, dry and crush them and turn them into powdered animal feed or fertilizer. The Bug Picture has affected farmers capturing swarms that descend upon areas of less than 5ha that for whatever reason cannot be sprayed with pesticide. The farmers collect the locusts by torchlight at night when they descend to rest. The harvest is then weighed and the farmers receive 50 Kenyan shillings per kilogram for their efforts.

Processing involves crushing and drying the insects, and milling them into powder.

In 18 days in February farmers in The Bug Picture programme collected 1,3 tons of insects.



SOUNDWAVE TREATMEN

CELEBRATION HEALTH
062 667 0025 / sales@celebrationhealth.co.za

Non-Invasive Treatment using low-energy wave pulsations to treat injury by triggering body's own

healing response. JUNE SPECIAL R350

Ask about our short courses:

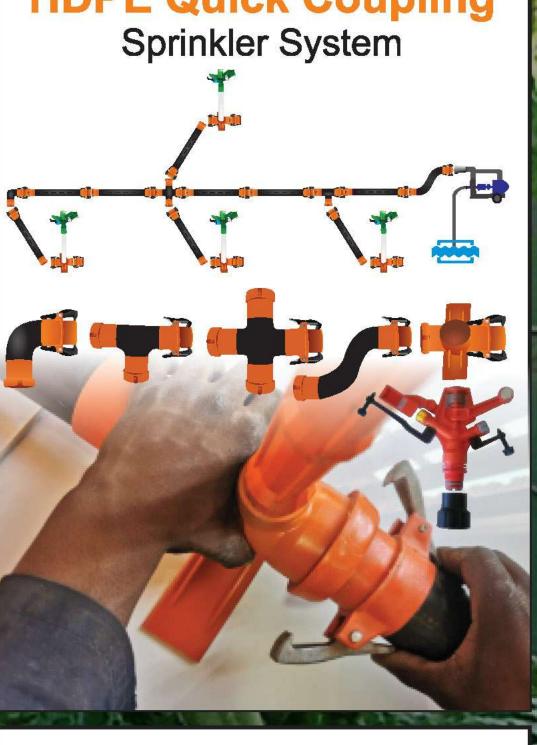
Anatomy & Physiology, Microbiology, Nutrition; Herbology, Epidemiology, and more!



Insist on Afriq Water's quality products at your local store



HDPE Quick Coupling Sprinkler System



for Drip and Sprinkler Irrigation

Fertilizer Tanks





AfrigDrip offering you exceptional quality products at cost effective prices.

Filters

with Disc and Screen Cartridge

> Y-Type Filters (Smaller Filters)



Single Plastic Filters

(threaded with stainless clamp)



Double Plastic Filters

(threaded with stainless clamp)



water

061 502 2547

Grain SA cancels Nampo 2021



his year's Nampo Harvest Day has been cancelled, along with the Nampo Cape Show, which was to be held at

Bredasdorp in early September, and the Nampo Alfa show at Bothaville in late September, organisers Grain SA have announced. The organisation cited the ongoing Covid pandemic, the looming socalled "third wave" of infections and the current government lockdown regulations as factors in the decision to cancel the events.

Following the replacement of last year's physical Nampo Harvest Day show with a scaled down virtual show as a result of Covid, Grain SA planned on reviving the physical show in its usual slot in May this year. However, it soon became clear that South Africa would not have been out of the woods Covid-wise in May, so Grain SA pushed the show dates back to August.

Now, however, with South Africa still very much in the grip of the pandemic, Grain SA had to take a decision as to whether the shows could go ahead at all.

Grain SA pointed out that organising such a mammoth event as Nampo ~ the last physical event drew together some 750 exhibitor companies and thousands of visitors from all over the continent ~ takes both time and considerable resources, and the organisation deemed it prudent to pull the plug at this stage as many stakeholders in the show are still prohibiting participation in, and attendance at, events.

Ever-hopeful, however, Grain SA has pencilled in 17 to 22 May next year as the dates for Nampo 2022 at Bothaville.

NEWS

Reclassification of rabbits in the pipeline

ith the current thrust by government towards encouraging the keeping of rabbits as a food source, the formal rabbit breeding industry, animal welfare organisations and the Dept of Agriculture, Land



Reform & Rural Development are holding meetings with a view to establishing formal regulations for what is becoming an industry in itself.

For the animals themselves, the major thrust of the regulations is expected to see rabbits being formally reclassified as farm animals, rather than pets.

Two documents are currently in the pipeline.

One is a draft document covering rabbit abattoirs, while the second is a standard for the keeping of rabbits, which will cover best husbandry practices, housing, cage construction, feeding etc. **

Affordable greenhouses for the home

Grow your own.







WHAT YOU GET:

- ✓ Full instructions and tools included for construction.
- √ The plastic is 180g/m², fully waterproof, UV treated and made for South African conditions.
- ✓ Dual zip, roll up doors (front & back).
- ✓ Roll up window flaps, with 40% white shade net windows to help with insect control and ventilation.
- √ 25mm galvanised steel poles for endoskeleton.
- √ The 25mm galvanised steel poles easily fit together.



Easy to construct. Available in 6 sizes. Free delivery in South Africa.

PRICES (VAT is included):

- •3m long x 2m wide x 2m high R4 080
- 4.5m long x 2m wide x 2m high R4 600
- 4m long x 3m wide x 2m high R5 150
- •6m long x 3m wide x 2.5m high R8 600
- •10m long x 3m wide x 2.5m high R9 999
- 12m long x 3m wide x 2.5m high **R11 499**

Bell & Paton

Plant, Grow, Live

Garth 083 320 2922

Oliver 083 650 0711 info@bellandpaton.com www.bellandpaton.com

Tasks around the plot in June

- ☐ Machinery: Now, in the quiet months, is the time to service your machinery. Drain fuel tanks, disconnect batteries, service air filters, sharpen blades, etc
- ☐ **Horticulture**: Rake leaves and add to your compost heap. Or, use directly as mulch. Start to plan and prepare beds for spring. Don't neglect your trees, even if they are dormant, they need a little water in the summer rainfall areas.
- ☐ **Infrastructure**: The quiet months of winter are a good time to fix or maintain things around the plot. Repair leaky taps and irrigation pipes. Scrape and paint fence poles. Tighten or replace broken or loose wires, poles etc.
- ☐ Animals: Don't neglect your animals. Pests such as ticks can still be active, and dogs and cats can still be bitten and suffer from biliary if not treated. 🏶



We stock a wide range of SPARE PARTS

including, but not limited to:







agromaster

İthalat ve İhracat Türk A.Ş.





Whole Goods

Ernst Eichhorn 066 290 6861 ernst@dicla.com

Horticulture

Kevin Postmus 071 383 3010 kevin@dicla.com

011 662 1371 www.dicla.com

ONLY AT DICLA WINTER COMBO

June 2021 only

- New Holland T4.80 2wd
- Fieldking 3-disc plough
- Fieldking 3-tyne ripper with roller

Fieldking 11x11 heavy duty disc harrow





BEEKEEPING

Labeling and adulteration: Issues in the honey industry

uch of the sticky, golden stuff one is presented with in supermarkets as honey is, in fact, not pure honey. It may contain genuine honey, but it's been mixed with artificial sweetening agents such as corn syrup to make it go further.



And, the problem is that unless one subjects it to expensive and complicated testing and analysis one will never know the difference.

This was one of the key points to emerge from a virtual workshop on honey fraud hosted by the SA Bee Industry Organisation (Sabio) in May and attended by beekeepers, retailers, regulators and scientists.

The issue of honey adulteration has many facets.

One of these is that South African beekeepers only meet half of the South African demand for honey, and much of their produce is sold locally and at markets rather than through commercial outlets.

As a result, much of the country's commercially-available honey is imported.

According to Prof Norberto Garcia, Argentinian president of the Apimondia Scientific Commission of Beekeeping Economy, South Africa's honey imports have trebled from around 2 000 tons in 2011 to 6 000 tons last year, 60% of which (4 700 tons) came from China. The rest came from Zambia (706 tons), Poland (305) and Romania (257).

But, he said, there are not enough bee colonies in China to explain the huge amount of honey the Chinese are currently exporting.

And why is Chinese "honey" so popular? Simply, because it is cheap, Garcia said.

Chinese honey is traded at around \$1 141 (about R15 900) a ton, versus double that for Zambian honey (\$2 375, or about R33 100) and close to \$3 000 (about R41 800) per ton for Polish and Romanian honey.

HIGHVELD
HONEY
FARMS

Visit our farm in Rynfield to get
your honey at farm prices.
Bring your own containers
and we will fill them up
- pay ONLY for the HONEY

Plot 185 Uys St, Rynfield AH, Benoni
Tel 011 849-1990
Weekdays 07:00-17:00
Saturdays: 07:00-13:00

And local beekeepers simply can't compete with the low Chinese price.

But apart from the question of cheap Chinese product there are other forms of honey fraud which bedevil the industry. These include:

- Labelling honey as coming from a particular floral source, for example orange blossom, aloe or litchi, when it has been blended with other honey, or it doesn't come from that source at all;
- ☐ Adulterating it with fructose, rice or beet syrup; and
- "Honey laundering", or importing cheap Chinese honey in bulk and passing it off as high quality local honey.



escriven@mweb.co.za

South African honey labelling regulations are now 20 years old and many believe they need urgent updating.

For example, it is not uncommon to see supermarket honey bottles with "Product of SA and/or China/Zambia/Uruguay/Poland", meaning the consumer cannot make an informed choice.

Attorney Janusz Luterek told the seminar that "legally, no words or illustration may create a misleading impression of the contents."

Thus, if it is not 100% honey, it shouldn't be described as honey.

TEL: 011 822 8503 011 964 1323

FAX: 086 630 2616 sales@gas2u.co.za www.gas2u.co.za



GPS co-ordinates -26.0026161 28.4140339 14 Magic Avenue **Bapsfontein** (near BP Garage)

LPG gas Walk-in price unbeatable (no resellers)

We also sell industrial gas!



Cadac 3-panel gas heater (excludes 9kg cylinder) R1 199





Gas glass hob R4 599

- High grade brushed stainless steel insert
- Knobs finished in brushed stainless steel
- Electric ignition
- Flame-failure safety valves
- Cast iron potrests in "X" design
- Rapid wok burner
- Wok stabiliser
- Dimensions: 875mm x 510mm
- Cut out: 825mm x 470mm





heater Now R499 (While stocks last)



Safegas cooker top

Cadac pizza stone 33cm **R199**







Solar LED light 20W, with sensor **R269**



(Includes pole and bolts)



Solar LED light with panel and remote **R549**



3 for R129



Diamond disc 230mm R115 each



Abus disc lock 70mm

Was **R282** Now R199

Mineral water / box trolley

- Heavy-duty construction, robust design
- Ideal for moving crates
- 32mm tubular frame and handle
- Extra-long back brace for additional strength
- Powder coated red as standard
- 200mm wheels

R1 099



Pratley glo high gloss polymer Now **R100**





Magic-Chem 25L Degreaser Now R225







BUSINESS

Key to good business: Ensure consistent supply

f smallholders want to sell their produce through shops they need to ensure they have continuity of supply. That's the message from a rural speciality shopkeeper who says she will never deal with smallholders again "because they aren't consistent."

F SERIES PARTS



She cites two recent examples. In the first she was approached by a local trout grower with a small consignment of gutted, cleaned and frozen fish. Knowing her clientele she agreed a price with the grower, offered them for sale and within a week they had been eagerly snapped up. So she phoned the grower for another consignment. "Sorry," he said, "I'm not culling fish at the moment."

Not long after this disappointment a local smallholder poultry grower approached her with a batch of plump, freshly slaughtered free-range chickens. Again, she agreed a price, took the birds and offered them to her clients who, again, snapped them up eagerly, soon coming back for more.

So she phoned the grower for another consignment. "Sorry," he said, "I've not got any more for sale."

"I won't be dealing with smallholders again, because not being able to supply when a customer asks for a repeat order causes disappointment and I risk losing the customer completely."

Her advice? If you have only a small production for sale, rather offer only an amount that means you can keep supplying on a weekly or fortnightly basis, even if it means having to freeze the extra for the second or third delivery.

"Rather build up a long-term relationship with your shopkeeper, like we shopkeepers try to do with our customers."





Tel: 011 967 1295 Tel: 011 967 2151

Cell: 072 041 7819

Fax: 011 963 0473 Fax: 086 218 4686

email: spartscc@mweb.co.za



261 & 262 Stanley Road, Pomona, Kempton Park, CNR of Stanley and High Road Monday - Friday 07:30 - 17:00, Saturday 08:00 - 13:00, Certain Public Holidays 08:00 - 12:30

■ Self-powered (battery)

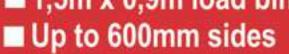
optional





OWERED TIPPING TRAILER

- ■Capacity 250kg or 0,5m³ 12V tipping mechanism
- Rear tip
- 1,5m x 0,9m load bin





Above: Sturdy 300mm high load rear-opening gates eft: Raised, with 600mm sides

Because Hard Work should be FUN!

Plus!

We will manufacture bespoke equipment of any design to suit your needs.















SPRAYERS

Implements for smallholders, poultry farms, piggeries, nurseries, stable yards, schools, estates, etc

> Phone: 033 330 6247 Fax: 033 330 8234

ER info@quadmaster.co.za

www.quadmaster.co.za

LIVESTOCK

Understanding and planning your livestocks' nutrition

he approach of winter draws attention to the importance of livestock nutrition, as animals respond to the added stress brought on by cold. Therefore, a balanced diet for one's livestock is most important and animal owners need to be putritional requirements in order to most them.



to know the nutritional requirements in order to meet them.

Livestock feed is made up of crude protein, fats and oils, crude fibre, carbohydrate, minerals, vitamins and water.

Animal feed can be divided into two main groups:

Roughage, which includes grazing (ie, pasture), preserved roughages (ie, hay and silage), and crop residues and by-products such as straw, mielie stalks and leaves, and hulls). This is food containing more than 18% fibre when dry and it takes longer to digest.

Concentrates, sometimes called hard feed, in the form of more concentrated foodstuff such as grains, or commercially formulated meal, cubes and pellets. Food that is rich in nutrients and highly digestible, it contains less than 10% fibre when dry.

Feed ingredients are described according to their nutrient content. This refers to the component of the feed that gives nourishment to the animal. The composition of animal feeds is regulated in South African legislation.

Different types and classes of animals have different nutritional Concentrates in

Concentrates in the form of pellets.

requirements. For example, growing and producing animals need more nutrients than full-grown non-producing animals.

The different components have different functions in the provision of overall nutrition.

☐ **Crude Protein**: Proteins are important building blocks of animal tissues. Just as in humans the majority of animal tissues and organs need proteins and other elements as their building blocks ~ primarily muscle and connective tissue, milk, fibre, blood, certain enzymes and hormones.

☐ Carbohydrates/ Starches: Starch from plants serves as a major energy source in animal diets.

Fats & Oils: They supply extra energy during times in which the carbohydrates are too few; enable the storage of surplus energy as body fat; they are necessary for the function of certain vitamins and enzymes.

Crude Fibre: The primary function and benefit of fibre is to increase bulk and water in intestinal contents, maintain optimum levels of good bacteria and promote gut health.



Crude fibre can take the form of grass.

☐ Minerals –

o Calcium (Ca): 99% of the Ca in the body is found in the bones and teeth. It is also essential for the normal functioning of the heart and skeletal muscles and in the activity of the enzyme system. And, it is involved in the coagulation of blood.

o Phosphorous (P): 80-85% of the P in the body is also found in the bones and teeth. It is essential for the energy metabolism of the body and for balancing the acidity of the body fluids.

o Potassium (K): Important in carbohydrate metabolism as well as nerve and muscle function; essential for the general balancing of

fluids in the body. Urine contains high levels of K.

o Sodium (Na): Plays a role in transmission of nerve impulses and in the absorption of sugar and protein from the digestive tract. It is essential in the balance of the body fluid and maintenance of muscle tone.

o Chlorine (Cl): Chemical component of digestive juices, it aids digestion, along with being essential in the balance of the body fluid and maintenance of muscle tone.

o Magnesium: Activator for many different enzymes and it plays a role in balancing body fluids.

o Sulphur (S): Essential for the formation of S-containing proteins. Wool contains high levels of S. Essential for hormone and enzyme functions.

o Iron (Fe): Essential part of the haemoglobin molecule that carries the oxygen in the blood. It is either part of or activates a number of enzyme systems.

☐ **Vitamins**: They lead to better feed conversion, better productivity and improved animal welfare. In general they are either a part of or help to activate the enzyme and co-enzyme systems of the body. Vitamins are essential for all aspects of energy transmission in the body.

■ Water: The body consists of between 75 and 85% water. It is needed by the animal in order to keep its body at a relatively stable temperature. Water is necessary for digestion and absorption of feed, and aids in the hydrolysis of nutrients like carbohydrates, fats and proteins. ��







PRODUCIUTY



HUSQVARNA WATER PUMPS

With a high spec pump house, and an engine built to operate in tough conditions, Husqvarna's Water Pumps offer a reliable mechanised tool, designed for various draining and irrigation purposes.



POULTRY

Planning the cycles of a small broiler operation

t takes a bit of planning and co-ordination in execution but if you wish to be a small scale broiler producer you will benefit by producing a small but regular (even weekly) supply of birds rather than one big batch only occasionally.



That's because consumers, and by extension the shopkeepers who will sell your birds for you, far prefer to have their needs met on a regular basis than face a glut of product followed by a dearth for the next two months.

Here's how it works in practice.

Broilers grown properly take seven to eight weeks to grow from day-old chicks to a decent size and weight for sale.

Let's assume you only have space and budget to buy, feed and house, say 160 birds at a time.

Rather than buying 160 to 180 chicks all at once (the extra 20 to allow for inevitable mortalities), growing continuously will see you buy 20 (plus a small margin of two or three for mortalities) every week for eight weeks. By Week 8 the chicks bought in Week 1 will have grown to slaughter weight. Once they are out of



CHICK TRANSPORT BOXES FOR SALE!

- **Staple Free** Design
- **Secure Locking Tabs**
- Sturdy
- Stackable
- **Minimum Order Quantity 25**

© Elaine 072-643-9132 ⊗ elaine@boxitup.co.za the system you can procure the next batch of day-olds for the cycle. And by Week 9 the chicks bought in Week 2 will be ready, and so on. While this will mean your customers will come to know that they can always expect a weekly delivery, there are complicating factors.

Not the least of these is that as the birds go through different periods of growth they require different feed (eg, starter, grower and finisher), different lighting and different vaccinations.

And, hygiene being vital when growing birds intensively, you will need to ensure that the space vacated by a grown batch is properly cleared and cleaned before introducing the next.

In effect this will mean partitioning off your growing house into eight spaces, and providing feeders, drinkers and lights for each.

The numbers above are merely for illustrative purposes. In reality many suppliers of day-olds will only supply full boxes of chicks so you will need to find a supplier who will sell to you in smaller numbers ~ unless and until you have the space and finance to grow into a producer supplying a hundred or more broilers a week. 🟶

WWW.BOXITUP.CO.ZA







www.meshforbirds.co.za



226 High Road, Kempton Park Inside the premises of Birds & Pets For Africa

OPEN 7 DAYS A WEEK FROM 8am to 5pm

Barry 083 679 1317 aviaries@mweb.co.za Adelle 083 427 7101 sales@meshforbirds.co.za Nicole 074 604 2024 orders@meshforbirds.co.za

IN THE FIELD

Optimising crop production using circular beds

ith irrigation systems basically divided into three types, namely flood-irrigation systems, mobile irrigation systems and static irrigation systems, whatever system one chooses, giving the plants the correct quantity of water is vital, as too little will result in poor production

or even death. And too much is a waste of water, might wash away important nutrients and can encourage disease.

Because of their low cost and ease of use rotary sprinklers are often chosen. But, because they spread water in a circle they are not at their most efficient when used on a rectangular bed. For, although much of the bed, directly under the arc of the sprinkler, will receive an even (and controllable) wetting, there will be dry patches at the rectangle's corners and, if the sprinklers are deployed closer together, wetter-than-desired patches where the arcs of two sprinklers overlap.

So, for rotary sprinklers, the circular bed method of cultivation of vegetables is excellent if you want to

make the best use of your sprinklers and water.

Creating the bed according to how the water is sprayed ensures that there is no water wastage ~ a factor that all smallholders will appreciate in water-scarce South Africa.

A simple cast iron rose-type sprinkler from a garden shop fitted to a stand to raise it off the ground will, with decent pressure, water a circle with a diameter of about 8m. This will give you a planting area of 50m². A standard impact sprinkler (one with a head that rotates) will water to a diameter of 12m, providing a circular area of 113m².



Rotary sprinkler.

If you want to go into small-scale vegetable production you would need four or five beds of this size.

To set up your beds choose a sunny spot, as most vegetables like full sun. However, in the subtropics, afternoon shade in summer will help reduce wilting in leafy vegetables.

To create the bed allow the sprinkler to wet a circular patch of ground to a depth of 40mm. This can be formally marked using pegs to establish the diameter of the bed. Dig to a depth of 40mm and remove the natural vegetation. Set it aside to be used as mulch later.

Once the soil has been loosened and cleared work it over again with a pick, to the full depth of the pick head. You can then add agricultural lime at a rate of 500g per square metre, and organic matter such as compost, or well-rotted manure. Once you have worked in the lime and the organic matter, rake the bed to create a fine tilth for planting.

Beds should be positioned at least 3m apart, providing space for walkways and to allow some natural vegetation to provide a more complex eco-system.

How you plant the circle is up to you (eg, in circles, or in straight rows across the bed), but allow for adequate spacing in the rows and between rows to ensure good access to nutrients and light and to discourage disease and fungi. It also makes sense to leave three or four narrow pathways leading into the bed from the circumference towards the centre to assist with access when weeding, staking and harvesting.

Round bed in early stages of planting.

Around the outside edge it makes sense to plant herbs and vegetables which are frequently plucked or cut. So spinach, parsley and lettuce (where you are not pulling out the whole plant) should be in easy-to-reach sections.

Keep in mind the principles of companion planting and of mixing different species to ensure a healthy eco-system. Plant slow growers among the fast growers to make the best use of space. Make sure that all the plants have good access to light and water, so be careful to plant taller plants which might cast shadows on their shorter neighbours to the southern side of the circle.

Many plants clump together in nature and thrive in groups, and so planting in circles actually mimics natural plant distribution. Edible flowers can add colour and attract pollinators.

Once the seedlings have been planted or the seeds germinate in the bed, spread a thick layer of mulch. This helps to smother weeds and decreases evaporation of the water. Mulch also stabilises the temperature of the soil, insulating it from excessive heat and retaining heat during cold spells. As it breaks down it is also providing nutrients and organic matter to the soil. The layer of mulch should be added to regularly. Mulch also reduces the incidence of cutworms which come out of the soil at night to chew through the stems of soft seedlings.

How can you measure that your plants are receiving the right amount of moisture? Easy. Place a flat-bottomed, shallow-sided receptacle such as a pot plant drip tray on a dead level surface under the sprinkler arc. The definition of a millimetre of rainfall is the volume of water required to cover a surface of 1m² to a depth of 1mm. Thus, if your sprinkler fills your drip tray to a depth of, say 5mm you have delivered the rough equivalent of a 5mm rain shower.

Moving the drip tray to different distances from the sprinkler under the arc and running the sprinkler for the same amount of time with each movement will enable you to work out if the spray nozzle needs adjusting.



PIETER 082 497 4247 | info@aframe.co.za | www.aframe.co.za





Manufacturers of Knitted Agricultural and Decorative Shade Netting

Since 1964



PROTECTING YOUR CROPS FROM THE STURIN

DELIVERING ON PROMISES Since 1964

+27 (0)11 692 1658 | sales@knittex.co.za | www.knittex.co.za 6 6 6







PROTECTS YOUR CROP AGAINST DAMAGE CAUSED BY SEVERE WEATHER CONDITIONS wind, sunburn, hail damage, birds & larger insects

Lunar planting: As logical as the tides

o many smallholders it may seem a bit "away with the fairies" but planting according to the phases of the moon is actually based on a measure of science. It is well-known

that the moon has a gravitational pull on the earth, which particularly affects water.

So the principle in lunar planting then is guided by the fact that between new moon and full moon not only is the light of the moon increasing but moisture levels in plant sap and soil are rising as the moon's gravitational force pulls moisture upwards. Therefore it makes sense to plant vegetables that produce above ground during these two weeks.

After full moon the light decreases and the moisture levels gradually drop as the gravitational force declines, and during this regenerative phase planting therefore should be of below ground produce.

In the southern hemisphere the moon increases from its left side. New moon looks like a big C, whereas after full moon it wanes or darkens from the left.

At full moon it rises at sunset and shines brightly all night, setting at around sunrise.

If the shape resembles a capital D you will know that it is the waning half moon and it is in its last quarter after full moon.

It will gradually decrease from the left, until it cannot be seen at all. This is because during the day the sun's



Planting using cycles of the moon.

light is too bright for us to see it and at night it is below the horizon. Sometimes the shape is described as "gibbous" which means we can see more than a half circle and less than a full circle.

Of course, following a lunar planting calendar does not mean one needs to be out in the dead of night with one's trowel and seedlings, simply that these activities should take place during these phases, daytime included. Neither does a lunar planting system replace the need to plant species in season. The two principles should be applied hand-in-hand, along with all the

other principles of proper fertilization, watering, mulching, companion planting etc.

When the new moon is waxing towards its first quarter it is recommended that one plant leafy produce like spinach, kale, loose-leaf lettuce and leafy herbs. This is also the time to plant rooted cuttings.

If you eat sprouts, now is a good time to start your growing process. This is also a good time for soil preparation as the moon is drawing up the moisture; use liquid fertilisers during this time too.

Between first quarter and full moon sow seeds for fruit producing plants, such as beans, cucumber, pepper, tomatoes, peas, squashes, aubergines, pumpkins and melons.

This is a favourable time to mow reluctant lawns and to do some light pruning to encourage better growth. Mulching and composting are also indicated now.

After full moon look at planting bulbous and below-ground produce: onions, potatoes, sweet potatoes, beetroot and carrots.

It is also suggested that one plant fruit trees now, so that roots, bark and trunk develop well. If you are planting crops that will produce in the following year, such as berries, now is a good time.

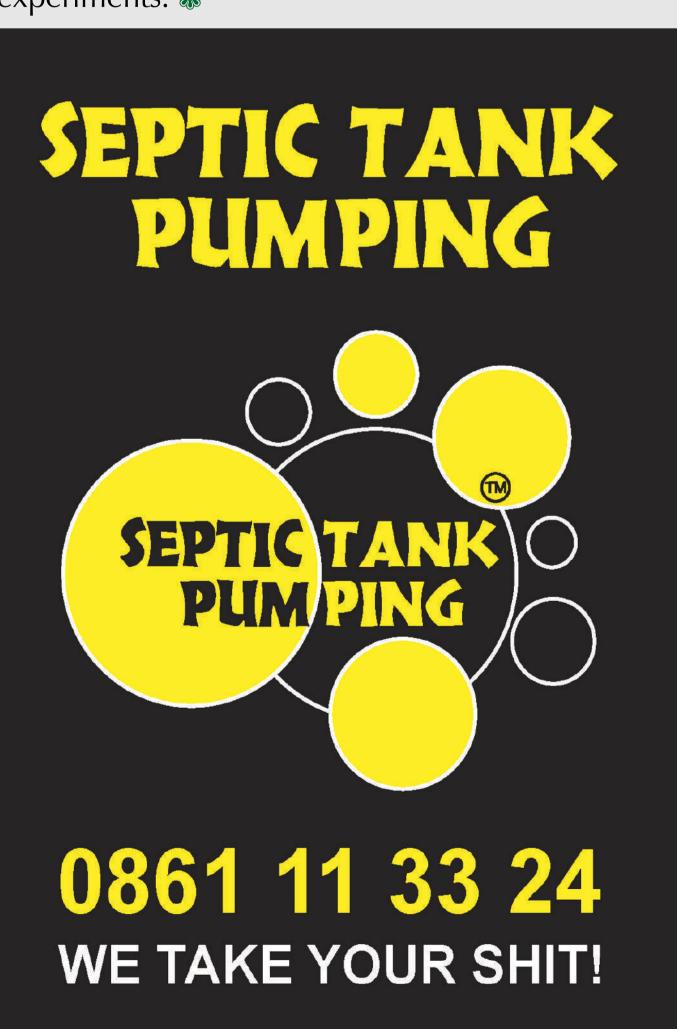
It's also a good time to start a compost heap if you don't already have one.

As a general rule avoid planting in the last phase of the moon, when moisture and plant energy are decreasing to their lowest. Now is the time for harvesting and clearing your vegetable patch or garden, weeding and generally tidying up.

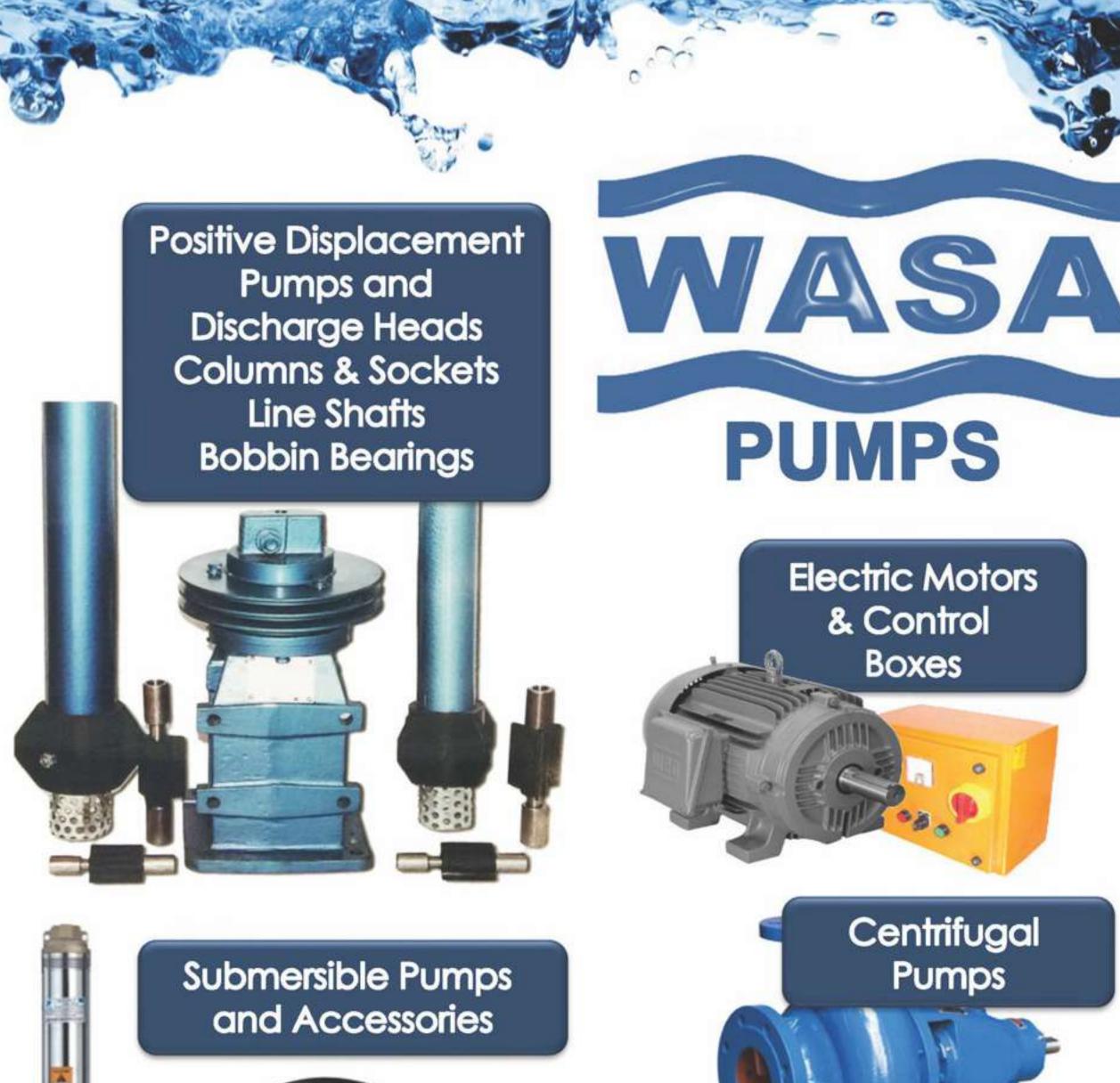
Even fishermen can consider the phases of the moon when they arrange their fishing trips. New and full moon phases are reported to be good for catching fish, while fishing at moon rise, moon set, sunrise and sunset is also propitious.

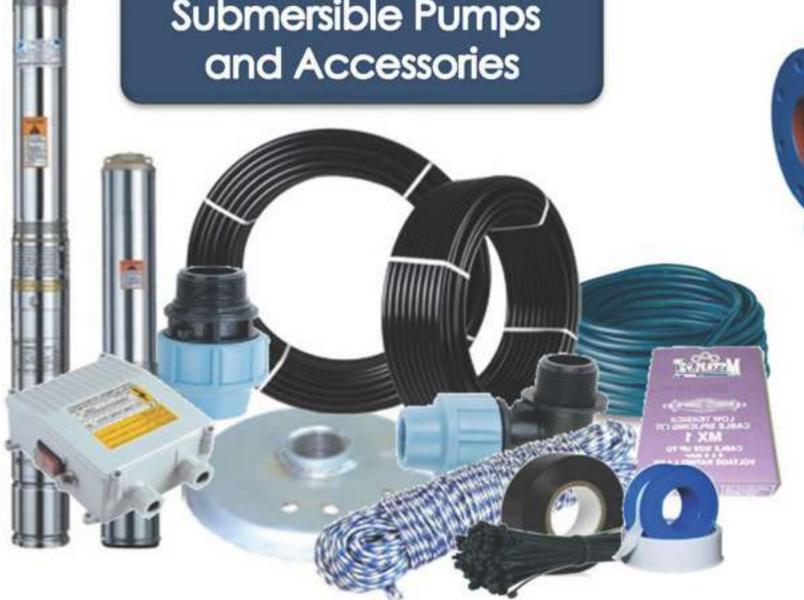
There are South African lunar calendars available online, which can be followed in planning planting, weeding, irrigating, composting, fertilising, grafting, pruning, propagating, transplanting, pest control, mowing and harvesting.

A simple way to determine whether gardening by the moon will work for you is to conduct your own experiments. \$\mathscr{\pi}\$









FOR ALL
YOUR
WATER
NEEDS!

PLOT 314B, 6TH AVENUE, BREDELL, KEMPTON PARK
TEL: 011 552 5938 E-MAIL:ken.wasapumps@gmail.com
KEN FOSTER - 082 606 1427 • CRAIG FOSTER - 076 801 8692

WEBSITE: www.wasapumps.com



Borehole Water Solutions

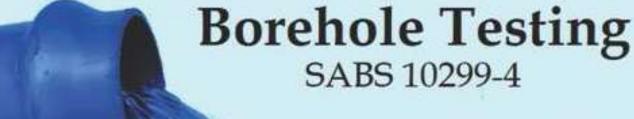
084 538 4600



SANS 241

Member of



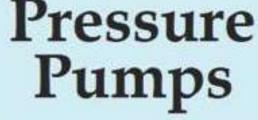


SABS Test Certificates Water Quality **Testing SABS 241**

Borehole Pumps and Motors



Automation and Control Repairs and Replacements



Supply and Install

Water Storage Tanks

Water Transfer and Piping



Water Filtration **UV** Sterilization **Water Purification**

Reverse Osmosis Systems

specialising in your borehole requirements throughout Gauteng

Visit our website: www.bws-sa.co.za Email us for a quote: kevin@bws-sa.co.za

Call or WhatsApp: 084 538 4600



Building The Nation

STAND 36 DE-WILDT, ROSSLYN, BRITS MAIN ROAD R566 • WWW.ELITETRADECENTRE.CO.ZA

PLUMBING/ELECTRICAL/ROOFING/STEEL HOUSES/TILE&SANWARE/BUILDING/CARS/PAINT& PLENTY MORE.... SHOP CELL 079 496 1648 / EMAIL: ELITETRADECENTRE@YAHOO.COM

MOHAMMED 082 768 6030 / FAROUK 082 627 9916 / ABU-BAKR 079 759 5383

IF YOU GET A WRITTEN QUOTE WITH THE SAME QUALITY PRODUCT ANYWHERE IN OUR AREA AT A CHEAPER PRICE **WE WILL BEAT THAT QUOTE**

Steel Houses

(1 Room, 1 Window) 2.7m x 3m R4 750.00 (1 Room, 2 Windows) 2.7m x 6m R7 995.00 (2 Rooms, 2 Windows) 2.7m x 5m R8 200.00 (3 Rooms, 3 Windows) 2.7m x 9m R10 500.00 (4 Rooms, 4 Windows) R13 500.00 2.7m x 12m R7 995.00 4m x 4m (1 Room, 1 Windows)

Other sizes also available NB!!! itual Houses Do Not Include Glass & Floors





Chick Drinker R 85.00

Tube Feeder

R 225.00

Bell Drinker R 325.00



Chick

Feeder

Infrared Heat Lamps 175 W + Lining Weather Resistant R 275.00

Stop Nonsense Concrete Houses

1 Room Complete 4.5x3m 2 Room + Bathroom 7.5x3m



NB!!! Chicken Houses cludes Curtains + Mes

INCLUDES CURTAINS + MESH R21 000.00 12m x 4m R32 500.00 18m x 4m 24m x 4m R36 750.00 30m x 4m R44 500.00 6m x 4m R12 000.00 Other sizes also available

NO PARTITION & NO WINDOWS

R 4 700.00 $2.7m \times 3m$ 2.7m x 6m R 7 500.00 2.7m x 9m R 9 400.00 4m x 4m R 6 900.00 4m x 6m R 9 200.00

ALL SPAZA SHOPS & TRADERS

MACHINERY

Repair your lawnmower in winter, avoid the summer rush

ith the possible exception of a swimwear shop, the most seasonal of all businesses, at least in the summer rainfall areas, is a lawnmower shop. For, with the grass cutting season having ended lawnmower shops

subsist through the bleak winter months with the odd chainsaw, blower or brushcutter sale.

Out the back, in the workshop, the mechanics idle away their time tidying up and tinkering, if they are retained on the staff at all.

It's not like that in summer, of course. At the height of the season the sales counter of any decent lawnmower shop will have displayed a sign warning customers of lengthy delays in the repair of their machines ~ six or eight weeks being not uncommon. And in the workshop bedlam reigns. Machines awaiting repair are stacked high, with mechanics working feverishly on many machines at once, stripping engines, replacing parts, testing engines, gearboxes and cutting decks.

And, every year, shop owners appeal to customers with machines in need of repair or refurbishment to bring them in over the winter months for proper servicing, cleaning, and replacement of worn blades, air and fuel filters, sump oil etc.

Although you know your machine will stand idle in your garage for the next few months, having it serviced now will ensure you are not faced with a six or eight week wait when it finally packs up in summer, and when you need it most.

And, you will be doing your lawnmower dealer a favour by keeping his workshop busy during the lean months, not to mention ensuring that his mechanics have continued employment through the year. 🏶





1 West Street, Boksburg East Industrial

Tel: 011 914-1922

Quality Agricultural Equipment - At Prices YOU can Afford

email: sales@reapersagri.co.za

Pieter Visagie Snr pieter@reapersagri.co.za

Pieter Visagie Jnr pieterjnr@reapersagri.co.za

www.realbelastircorss

Para Final

MONOSEN

Visit our website for our full line-up of Landini tractors from 13kW to 81kW

and Mowers.

Duties

Models for Light,

Medium & Heavy



Reapers renowned 75kW, 4-WD Slashers, Haycutters

Everything you need for Veld Cutting, Haymaking, Baling & Fire Season Preparation!

MATABI

quality Matabi

Backpack Sprayers

Monosem planters

for all species

sizes of tractor

and for all

Specially formulated for harsh farming conditons

We stock



We Stock KRONE Baling Twine

Wide range of Slasher & Tractor components & Spares in stock





Blowers, Brushcutters, Chainsaws Full range of spares also in stock

Husqvarna 580BTS backpack blower 3,3kW, 11,8kg, 26m³/min air volume,





HORTICULTURE

Knitted fabric: Useful for more than just shadecloth

n a country prone to extremes of sun, heat and in some parts cold, not to mention hail, snow and violent rain, agricultural protective netting is gaining ever-increasing popularity



among growers and a means of protecting crops of all types, and expanding production into areas that would be considered marginal at best or even fully unsuitable.

And on-going research into the uses and benefits of crop netting has seen the introduction of a rainbow of different colours and intensities, each designed with specific properties in mind.

Thus, gone are the days when one would choose between black, white or green netting in different light intensities only.

Arguably South Africa's leading agricultural protective netting producers, Knittex commenced trading in 1964, and now manufactures a wide selection of high quality knitted fabric that is durable and 100% recyclable. The Knittex SpectraNet range is backed by years of research and development to ensure that nets have a guaranteed lifespan of ten years or more.

A well-constructed shade house can provide the grower with a protected microclimate, ideal for seedlings, vegetables, cut flowers, pot plants, etc.

In hot climates vegetables and cut flowers are grown under shade cloth to reduce heat and light intensity. With the help of science, innovative light manipulation and UV management, photo-selective colour netting creates an environment that can be manipulated into optimal growing conditions. Shade net can be used to manipulate plant growth, for example to get stem length, use a net that allows far-red wavelengths through. This will force the plant to stretch to the light.



White shadenet or black and white combination net has been used very successfully on various vegetables, especially when grown hydroponically. Light spectrums can help growers to choose the right colour and percentage for a specific crops.

The use of shade netting in areas of strong winds, hail or snow allow crops that might otherwise be destroyed by violent weather to be grown successfully, and it is well-known in frost-prone areas that a heavy shade net provides some protection, effectively

holding off the very worst and extending the growing season for some species susceptible to heavy frost.

Shade netting can also help benefit water efficiency as it reduces the amount of evaporation from free water surfaces, and if the structure is properly built netting provides protection against birds and harmful insects.

For more information: Tel: 011 692 1658 or e-mail: clientliaison@knittex.co.za or click here. 🟶



016 001 0633

Next to the R59, Meyerton

FOR ALL YOUR TRACTOR, **IMPLEMENT AND SPARES NEEDS!**

CHECK OUT THESE MONTHLY SPECIALS ON TRACTORS, IMPLEMENTS AND PARTS



R22 000 + VAT

NEW MASTER MOWER **MASSEY-FERGUSON 35X HD 1.2m SLASHER** R70 000 + VAT



MASSEY-FERGUSON 135 R85 000 + VAT



MASSEY-FERGUSON 240 R100 000 + VAT



FORD 4600 R85 000 + VAT



JOHN DEERE 1641 R95 000 + VAT



















RotoTank

Manufacturers of Water, Chemical, Transport, Septic Tanks and Silos

www.rototank.co.za

KwaZulu-Natal

Gauteng & Northern Parts

Cape Region













Tracy Thiele: 079 758 0589 André Maré: 071 689 4216

Morné Loubser: 079 880 9115

Mobile users: Tap the WhatsApp icon to chat, or the dial icon to call.



Water tanks from 50ℓ to 40 000ℓ

Silo tanks from 175ℓ to 27 000ℓ



RotoTank RotoTank

Septic tanks from 300ℓ to 12 500ℓ (2-55 persons)

Transport tanks from 220ℓ to 8 000ℓ

■ Mr RotoTanl

DESIGNED TO LAST!

ALSO:

Water troughs Dry storage bins

Site huts **Toilets** and more... to Sunny

Visit your nearest RotoTank branch to enter. Ts &Cs apply

Competition runs from 1 January 2020

IN THE KITCHEN

Yoghurt: The easiest dairy product to make at home

any smallholdings have enough space to keep at least one \sim albeit often only a small breed \sim cow. But, unless the household is very large, even one cow is likely to produce more milk than the family can consume. One

solution is to sell the excess to neighbours. But making yoghurt is also a good way to use up your excess.

Of all the dairy products, yoghurt is the easiest to make, requiring no more than heat and some yoghurt culture.

The culture can be bought freeze-dried from dairy ingredient suppliers, and different cultures are available to give you different degrees of tartness. A few grains are used at a time so even a small quantity can last one for months if properly stored in the freezer.

To make a litre of yoghurt, warm a litre of fresh milk to just below boiling point (depending on your altitude, around 95°C) to sterilise it.

Allow it to cool until it is tepid ~ about 25°C. Dissolve a few grains of freeze-dried culture in a little of the cooled milk, add it to the milk and mix well.

> Alternatively, instead of using culture, some add about a tablespoonful of thick plain unradurised yoghurt to the milk, mixing well to ensure that it is completely incorporated into the milk.

> Pour this into a clean, dry container with a big lid. Allow the mixture to set for eight hours at 25°. One way to do this is to wrap the container in a small blanket or towel and put it in a pre-warmed but switched off oven overnight.

There are yoghurt making machines available as well, which vary from inexpensive to alarming! Some double up as baby's bottle warmers. Cool the set yoghurt in the

refrigerator and enjoy. You can keep it plain or you can add pureed fruit or jam to flavour it. For thick yoghurt (sometimes called Greek yoghurt) line a large sieve with a square of muslin, pour in the cooled yoghurt and set it to drain into a bowl in the refrigerator for a few hours. The longer you leave it the

Full cream milk makes the best, creamiest yoghurt, but you can also use low-fat milk. For a really luxurious

more whey will drain out and the thicker the yoghurt will become.

texture, you can warm less milk and then stir in enough cream to make up your litre.

Bale rings for livestock Kraal panels We deliver! Neck clamps Loading ramps Various other products www.steeltubeprofiles.co.za **Contact Steel Tube & Pipe Profiles**

072 879 4871

3.6m x 3.6m

Be sure to watch your warming milk closely.

You don't need to use fresh culture for each batch. For subsequent batches use a tablespoonful of the previous batch. Gradually, you will notice each subsequent batch becoming a little more tart in flavour. When this is no longer to your liking start with a fresh batch of culture.

> If you don't have a cow you can still make your own yoghurt, using fresh shop-bought milk. That it has been pasteurised has no bearing on the yoghurtmaking process. It's that easy!



6m, 9m & 12m



12 x 12 x 2.5



Implement Sales 0765609856

Enquiries 0136653054

3rd Street 8, Delmas

accounts@mnani.co.za sales@mnani.co.za gert@mnani.co.za

FOR THE SMALL HOLDER

TUFFY MINI ROUND BALER



Models:
TRB 0850, TRB 0870 and TRB 1070
TUFFY HAYCUTTER



Available in a 1.2m, 1.5m and 1.8m

TUFFY S-TINE TILLER



Available in a 5, 9, 13 and 16 tine

All implement replacement parts, any make or model

Disc bearings, disc shafts, disc spacers, ripper tines, cultivator tines, bolts and nuts, PTO's, universals, yokes, sprockets, chain, implement pins, top links,

<u>Mower spare parts</u>

Blades, bolts, bushes.

TUFFY SLASHER



Available in a 800mm, 1.2m, 1.5m and <mark>1.8m</mark>

TUFFY DISC HARROW



Available in a 10, 12, 14, 16, <mark>18 and</mark> 22 disc

TUFFY ROTOVATOR



Available in a 1m, 1.25m and 1.5m

Visit our new TUFFY HARDWARE AND STEEL.
Located in ELOFF.

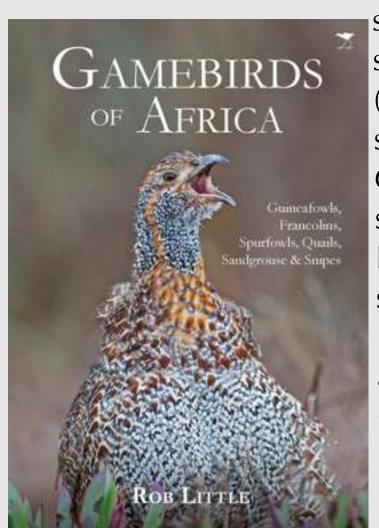
BOOKSHELF

Know your guineafowl from your francolins

or smallholders with an interest in what flies onto their land a detailed guide entitled Gamebirds of Africa: Guineafowls, Francolins, Spurfowls, Quails, Sandgrouse & Snipes, has been updated and republished.



The book is a detailed, full-colour guide that includes everything needed to identify and get to know the 89



species of birds that fall into six groups: guineafowls and Congo Peafowl (7 species), francolins and partridges (33 species), spurfowls (26 species), quails (3 species), sandgrouse (13 species) and snipes and Eurasian Woodcock (7 species).

Gamebirds of Africa offers a concise and updated summary of the large but scattered body of accumulated scientific research and field-guide literature. Interesting facts about the distribution, habits, breeding, and conservation status of each species are presented in a readable fashion. Numerous photographs convey the appearance, characteristic features, behavioural activities and, in many cases, the habitats frequented by each bird.

Gamebirds of Africa will be a worthy addition to the ornithological literature and to the bookshelves of bird enthusiasts, particularly birders, wing-shooters, land owners and anyone with an interest in nature and conservation.

The publication of this book was made possible through funds from the Wild

Bird Trust and the FitzPatrick Institute of African Ornithology, University of Cape Town.

Published by Jacana Media, the recommended selling price is R370.00.





Reka. Rekisho. Holimo Thenga. Thengisa. I-Swop Buy. Sell. Swop Koop. Verkoop. Verruil

ALL FREE ... & COUNTRYWIDE



Simple to use, fast and very effective

Register online to buy, sell or swop @ sasfox.co.za

Enquiries: 011 979 5088 or

email admin@sasfox.co.za

or accounts@sasfox.co.za

sasfox.co.za is a division of: Bowford Publications

THE BACK PAGE, BY BLOMMETJIE

Every gardeners' scourge

here are two things that mankind has never found a solution to. The first is the common cold, for which no cure has ever been found. You can take all manner of potions to relieve the symptoms, clear the stuffy nose, soothe the sore throat etc but there is no single pill or injection that will cure you.

The other thing for which there is no sure-fire solution is the annual eruption of little piles of soft earth around one's garden and in one's fields, named mole-hills.

Sure, there are many, many suggestions. Post something about one's mole hill probler a storm erupts. Sympathy is given by the bucket-load by similar sufferers. And there's advice aplenty. But a sure-fire cure? Nope.

To be accurate, to lament "I've got a mole problem in my garden," is to give a bad name to the wrong species. In truth, it's not moles that are our problem, but mole-rats.

Moles are small little critters that live underground and survive on a diet of worms and insects.

The beasties that cause us such anguish are larger, and are fitted with a pair of long, prominent Bugs Bunny-like teeth with which they devour their vegetarian diet, namely our carrots, potatoes and underground tubers and fleshy roots of just about any sort.

And they are almost impossible to get rid of. They appear impervious to water \sim one of the oft-recommended solutions is to flood their burrows. A maplotter friend of mine tried that. Unfortunately he became distracted during the filling process and forgot to close the tap. The water flowed all night, emptying his dam and flooding his garden. And the mole-rats, presumably, simply enjoyed a good swim, for they went nowhere.

They appear impervious to carbon monoxide. I tried this myself, using the exhaust gas from a smoky old motor car. Having stuffed a pipe down a mole hole I connected it to the exhaust pipe, started the engine and revved away, filling the network of subterranean tunnels with fumes and smoke. After a while the mole-hills started to erupt like mini-volcanoes, white smoke billowing forth all over the place.

The effect below ground, however, was less dramatic. If fact non-existent. Total fail.

Other suggestions I have heard range from bizarre to disgusting. One is to scatter 2-litre cooldrink bottles filled with water around one's garden, the effect on the moles being ... I'm not sure what. But the visual effect would be to make one's garden look like a municipal park after a long-weekend.

Another is to stuff fresh dog-turds down the holes, with the advice being that the stinkier and sloppier the turd the better. Presumably a development of this idea is to mush up the turds first in some water and to pour the resultant slurry down the holes. I imagine the nett effect of this activity is simply to ensure that one's garden is free of doggy landmines.

So if you have a cure for mole-rats that really, really works, please share it. I, and just about all our readers, would love to try it.



EASY WATER SOLUTIONS **Convert Your Septic Tank Contents** to Safe Irrigation Water

Install an Easy Water Waste Water Treatment Plant and RE-USE ALL YOUR WASTE WATER ~ grey, black or yellow

- Produces Clear and Earthy Smelling Water
- Safe for Your Grass or Plants
- Can be scaled to any size, from Household to Housing Estate
- Tested and Proven Design
- Disinfection Options Include Ozonation or Chlorination
- Meets Department of Water Affairs standards
- Supplied with All Manuals and Diagrams
- Maintenance Just Check Power Supply Daily
- No Honeysucking Required
- Removes lime-scale

C Certified (European Standards)



Satisfaction Guaranteed

For rural developments, schools, clinics, housing etc

Johan - 062 703 2738



> johan@easywatersolutions.co.za > www.easywatersolutions.co.za



EASY WATER SOLUTIONS