SOUTH AFRICAN SOUTH AFRICAN JANUARY 2022 EVERYTHING A SMALL FARMER NEEDS

In this edition: Special focus on waterfowl **Tractor tyre inflation** Social behaviour amongst sheep ...and more!



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Tel: 011 979 5088 or 076 176 7392 Email: info@sasmallholder.co.za

Publisher & Editor:

Pete Bower - editor@sasmallholder.co.za

Deputy Editor: Catherine Bower **Research Editor:** Vanessa Bower

Advertisement Sales: Tel: 074 788 9044 Email: adsales@sasmallholder.co.za







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Front Cover

Geese. See our special feature on waterfowl on page 13.

FEATURES

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EDITOR'S COMMENT

How to save South Africa

s taught in undergraduate economics classes at capitalist universities the world over, there is a simple way to grow an economy: You dig stuff out of the ground, make it into something useful, and sell it to somebody who can use it. And if you have nothing to dig out of your own ground you buy stuff from a country that does its own digging and fashion it into something useful. And then you sell it to somebody who wants it. The stuff you dig out of the ground need not be gold and diamonds or ore. It could be vegetables, fruit or fish. The key is to turn whatever you have at your disposal, such as iron ore, or gold, or diamonds into more than just that which emerges at the end of a shovel. Thus, by smelting the ore and making finished steel product you will earn more than the value of the ore itself. It's not hard to see that digging and smelting and fashioning requires an awful lot of labour. Not to mention machines, which will require maintenance. And energy with which to run them. And the labour needs to be trained, productive, and keen to work at an internationally competitive wage (otherwise one's product will not be competitive with products from other more efficient countries). The key is efficiency - of procurement, production, packaging, pricing and distribution, ie along the entire value chain. In practical terms this will mean being able to attract skilled workers and

to offer unskilled and semi-skilled jobs to individuals at much lower



wages than the current legislated minimums, free of union interference, and with real production incentives. And thus you can see why under our current politics South Africa has zero hope of overcoming the disastrous unemployment crisis, and growing the economy at anything like the growth rates enjoyed by fellow emerging markets. Here are some ANC policy thrusts that are simply useless: ☐ Trade and industry minister Ebrahim Patel's attempts to encourage local manufacturing by imposing swingeing import duties and controls won't help. ☐ Tourism, logistics and financial services are not the only holy grail on the path to economic salvation. ☐ Allowing thousands of heavy vehicles and minibus taxis wholesale access to our goods and passenger transport network is inefficient and environmentally damaging. ☐ A revived national airline will provide no benefit. ☐ Eskom's inability to supply cheap, reliable power is an impediment. The only way, real way, to get this economy going again is to free up the jobs market by scrapping restrictive labour legislation, and by allowing businesses to buy their energy needs from whosoever they may please.

Pete Bower

Editor









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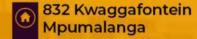
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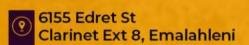
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NEWS

Forecasters predict end to La Niña in 2022

ith the exception of the drought-ridden Karoo

most of South Africa experienced a fairly cloudy, wet December, bringing an end to drought for some, and ensuring full, or filling, dams and rivers for many. Yet, while it may have seemed like an exceptionally wet early summer, it was, in Eastern Gauteng at least, not much wetter than the same months in 2020 which was also not exceptionally wet when looked at over a number of years.





Moreover, like the previous year, in many parts more rain actually fell in November than in December.

The weather over southern Africa this season therefore accords with the observations of forecasters of a weak to moderate La Niña effect in the tropical Pacific Ocean.

Forecasters believe this will continue, with cooler-than-average sea surface temperatures persisting for the first few months of 2022.

However, they expect sea surface temperatures to rise in the latter half of the year, meaning we can expect the opposite of a La Niña effect next season, namely an El Niño, which will bring with it a hot, dry summer towards the end of 2022 over much of the southern hemisphere.





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NEWS

Beekeepers resort to using bees as weapons

hilean beekeepers last month used 60 beehives to "weaponise" a protest for support from their government, and in so doing caused no fewer than seven Chilean riot policemen to be hospitalised with bee stings.

Nevertheless, the unusual protest garnered considerable international publicity for Chile's apiculture industry. The beekeepers maintain they need governmental support because a twelve-year drought has decimated







the bees' traditional forage and, in so doing, has decimated the bees. The protest, outside the presidential palace in the capital Santiago, involved depositing 60 hives on the pavement, which clearly angered the thus disorientated bees, causing them to attack the policemen who arrived to try to move them. There are, to our knowledge, no moves by South African beekeepers to hold a similar protest outside a presidential residence. Given the general ferocity of the African honeybee, such a protest, if attempted, could be expected to cause considerably more damage than simply a few stings to seven policemen. 🟶





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From a kid's hobby to a thriving business

hen 12 year-old Rikalize Reinecke attended a course in aquaponics she was challenging more than one stereotype: there are few female aquapreneurs and most girls of her age are certainly not thinking of starting a business.

However, after her training she set up a small aquaponics system on the family smallholding in Kameelfontein, east of Pretoria. (Aquaponics is a system in which the waste produced by farmed fish supplies the nutrients for plants grown hydroponically, which in turn purify the water.) "I said she was only allowed to use 1ha of our land," comments her father Danie. "It is our home and we keep animals and some game." The name "La Pieus" was something they made up, influenced by the word "tilapia", which is the fish she began farming with. Then they were told by a visiting Canadian academic



Rikalize Reinecke with a La Pieus system at Kragdag 2021



that, in French, *la pieus* means "young and dedicated", which is most appropriate.

Seven years later La Pieus Aqua Holdings comprises four companies: retail, hatcheries, a non-profit feeding programme called Feeding Africa and a training and research arm AquaPro[™] training academy. The premises house the offices, and the original operating systems that Rikalize established. This is used as a "living lab" by students who come from universities in Africa and overseas. La Pieus Aqua is accredited by two universities as a research centre. The two advanced hatcheries take up about 100m². There is a training centre with its own kitchen and catering facilities. Reinecke Senior now does most of the training there.

There are also workshops, masterclasses and short courses offered at centres throughout southern Africa. Then there are field workers who go into rural areas to teach communities about aqua culture. They are led by Bongi Ramatsetse.

A total of eleven people are

SMART SMALLHOLDERS

employed at La Pieus Aqua Holdings. The small modular system that Rikalize developed in 2017, the "Lappies™" unit, still sells well. It targets families of four to six members to provide a sustainable and secure source of food. Then there is a bigger system for smallholder farmers or for communities, which can oper-



The original "Lappies" aquaponics system for families of four to six still sells well.

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ate on a semi-commercial basis. It comes in the form of an aquaponics project tool-kit, along with step-bystep instructions, with support from La Pieus Aqua in setting up and implementation. Danie manages a consulting and implementation service for clients who wish to set up a commercial aquaponics or fish farming system. He and his staff evaluate the site conditions and relevant business prospects and offer a choice of system options and adaptations before finalising the most efficient design. In addition, Danie offers business planning advice. Their systems have been implemented throughout Africa. Danie travels extensively through southern and central Africa to market and then establish both



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aquaponics and fish farming systems. Their shop, Aquaponics Direct, headed up by Hanli Reinecke, provides clients with everything that they need to carry on with their enterprises.

La Pieus' PonicPro App offers information and support for aquaculture and aquaponic farming. It is a good way for clients to stay in touch with the La Pieus team. A new, upgraded version will be launched next year. This daughter and father team are a highly successful example of their own philosophy: start small, but do it. Says Danie: "You don't need a lot of space, you need to farm clever and with passion. It will take time and don't think you're going to make

money right from the start. The only people who make money are the South African Mint. The rest of us have to work hard and earn our money."

Danie also emphasises that you have to be prepared to be innovative in order to meet whatever challenges you encounter. Entrepreneurs are often pushed over their limits, but to see subsistence farmers throughout so many African countries doing well with La Pieus Aqua farming systems is deeply rewarding, he adds. For more information on La Pieus Aqua see their website www.lapieusaqua.co.za or www.aquaponicsdirect.co.za or email danier@lapieus.co.za.





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Ducks vs geese:

What's the difference?

eese and ducks, along with swans, are freshwater birds that belong to the family Anatidae. All waterfowl have webbed feet and broad, flat bills. However, there are also differences. Geese are medium to large birds, bigger than the medium sized ducks. The goose has a longer neck, an elongated body and longer legs. The duck has a stout body with short legs. Ducks tend to have bills that are flatter and have nostrils that sit high up. Geese, on the other hand, have shorter, high set bills and their nostrils are placed lower on their bills. Ducks prefer to eat water plants such as pond weed,



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along with seeds, insects, worms, small water snails and amphibians. Geese mostly eat short grasses. Geese tend to be grey, white or black with little to no additional colouring. Some male ducks, on the other hand, have brightly coloured plumage. Female ducks make a quacking sound, while geese generally communicate by honking. Geese also hiss in a threatening way. The collective noun for a group of geese on the ground is a gaggle; when in flight, they are called a skein, a team, or a wedge. A group of ducks on the water is called a paddling. Goose eggs are much bigger than duck eggs, and they tend to lay fewer eggs. Baby ducks are ducklings, while baby geese are called goslings.



Ducks can live up to 15 years, while

some geese can live for as long as 20

years. 🗱



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ook around your plot. Feel there's something missing? Maybe you should get yourself some ducks.

Ducks have a number of features in their favour:

☐ They are hardy birds that can live for up to seven years.

They lay eggs that you can eat, just like chicken eggs.

☐ They provide meat.

☐ They are easy to contain.

☐ They aren't as prone to infectious diseases as chickens.

☐ They eat slugs, worms and any other small creatures that they can catch.

☐ Their basic requirements are simple. All they need is water, food and a safe place to spend the night.

☐ And of course it's nice to have them waddling around making happy

quacks.

Before you acquire them however, be sure that the facilities to house them and keep them healthy are in place. Ducks need water, space and infrastructure. Fences, additional food, housing and facilities for breeders and young are essential. Ducks need water to swallow their food and they need water to a depth of at least 10cm to clear their nostrils and keep their beaks clean.



A natural pond is ideal and preferable. If you can't manage that, they can be provided with a child's wading pool. Water for swimming is not strictly necessary as long as they have tubs of water for drinking, and the water is clean.

Clean drinking water must be provided separately. The ducks must not be able to climb into drinking water containers, but they must be deep enough and big enough for both adults and young to immerse their heads. This keeps their eyes clean and free from bacteria. The drinking water should be changed daily as the birds often get food in it, which will quickly start to ferment. It is best to have the drinkers outside the duck house because ducks are very good at splashing it all over the place, and if it's just outside the house and their food is inside, they won't have to travel far to drink and clean their beaks.

Generally a diet of household scraps is not sufficient for good health, good growth and good egg production. Free-range ducks can be fed a grainbased diet just like chickens.

There are feeds made for duck, although they are not always available. Ideally, table ducks should be fed grower meal, and laying ducks should be fed layer mix.

To prevent a digestive upset, any change of feed should be gradual over a period of weeks, with the new feed gradually being substituted for the old.

Ducks must have a supply of enough green feed. This can include kikuyu, lucerne, oats or any other vegetation suitable for them. Provide them with additional feed on a daily basis, to increase the protein levels required for breeding and growing birds. Young birds will start on starter mash. For adult birds, to keep costs down you can feed them a mixture of wheaten bran, lucerne meal and poultry mash, in the proportions 1:1:3. Don't use growing mash/pellets for too long, as the protein is too high for them and they will become too fat. Rather use laying mash/pellets. There is controversy whether feed should be fed wet or dry. In both

cases drinking water should be available to help the bird to swallow the feed. Increase the ration in winter when green feed is not regularly available.



Pekin ducks.

Keep the feed in metal containers to prevent spoilage and for ease of cleaning. When it comes to housing, ducks are pretty hardy, but generally they should have some kind of covered shelter available to them at all times.

Housing

The duck house can be bedded with wood shavings or sawdust. Fresh litter can be added as necessary and the deep litter cleaned out in summer





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each year, or it can be cleaned out more frequently, perhaps weekly. Remember too that ducks need shade in summer. If there is no natural shade, it is important to rig up some sort of sunshade to prevent them over-heating.

It is best if you supply a small threesided shed, or an open hutch/pen. They must have an area that is dry and free of draughts. Nesting boxes should be available to females at least two months before the breeding season starts.

Provide each housing area and/or paddock with nests. Some ducks will make their nests in the shavings on the floor or under bushes whilst others prefer nesting boxes. Nests must be accessible to pasture, pond and housing. When the birds are breeding, ensure that they are safe during the evening.

You can acquire ducklings or adult birds. If you are buying from a professional breeder, check out the conditions in which the birds are kept. The cages should be clean, the water fresh, and the smell shouldn't be too overpowering. The animals should look relatively clean, healthy and alert.

If you buy ducklings make sure they are more than four weeks old and preferably even older and fully feathered.

Ducks don't need any particular vaccinations to help keep them disease free, but worming once or twice a year will help ensure they stay healthy.

Duck eggs

Duck eggs are delicious, larger and with a slightly stronger flavour than chicken's eggs.



However, they are not as popular as hens' eggs because they don't keep so well. The shells are more porous than chickens' egg shells, and more likely to become contaminated by bacteria. Because of the porosity of the shells and the consequent risk of salmonella





poisoning there is no real commercial market for duck eggs.

Moreover, ducks will lay their eggs anywhere, often in mud and worse. However, if they are collected soon after being laid, wiped or brushed clean and stored in a cool place they will keep for seven to ten days.

Compare this with chickens eggs that may be stored chilled for up to three weeks.

Egg laying begins at about 16 to 18 weeks of age. Most eggs are laid at night, so it is best to collect the eggs at about 09h30 if you can.

Raising ducklings

A female duck may be left to sit on her eggs to raise ducklings. Several ducks may lay eggs in one nest, but it is best to confine sitting ducks separately, otherwise there may be squabbles about whose eggs and ducklings they are.

Ducks are not often good mothers. They may sit on 20 eggs but hatch only half, with only half of the hatched ducklings eventually surviving. To compensate, some people put the duck eggs under a broody hen who usually does a good job of it ~ even if she does get very anxious when her 'chicks' eventually take to the water, leaving her fretting on the bank.

Remember that very young ducklings with down are not water proof and can drown easily.

For the table, a duck can be almost half grown by about four weeks of



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of age, and it can have reached a table weight of 3kg by about nine weeks of age, but generally free range ducks take a few weeks more to reach this weight.

Duck breeds in South Africa

Like chickens, ducks are divided into bantam, heavy and light breeds, with the heavy breeds being better suited to the table and the light breeds providing the high egg layers. Probably the most common breeds in South Africa are Welsh Harlequins and Pekins.

Muscovy ducks: If you are looking for poultry that is easy to care for, resists disease, and controls flies at the same time, then Muscovy ducks have a number of advantages over other poultry. The ducks are resistant to most diseases, including Newcastle disease, they are hardy, they forage well for their own food and reproduce easily. Muscovy meat is



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tasty and low in fat. They are a large duck, with the males measuring about 76cm in length, and reaching a live mass of 4,8kg in twelve weeks. Females are considerably smaller, and only grow to roughly half the males'

size. The bird is pre-dominantly black and white, with the back feathers



Muscovy duck.

being iridescent and glossy in males, while the females are drabber. The amount of white on the neck and head is variable, as well as the bill, which can be yellow, pink, black, or any mixture of these.

They may have white patches or bars on the wings, which become more noticeable during flight. Both sexes have pink or red wattles around the bill.

The great advantage to Muscovys is that they don't need a pond nearby - just make sure they have clean water to drink.

As a result, they are very popular and are thus more prone to theft than the usual commercial breeds.



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How do sheep socialise?

heep are the ultimate flock animals. Anyone keeping sheep will know how they use this grouping instinct as a defence mechanism. They will run away from a person or a predator, form a tight group and turn to face the threat. Then, as they are approached, they scatter again, only to form a flock further away.

They realise that there is safety in numbers and it is difficult for a predator to single out one victim in a tightly packed group.

They are described as gregarious, meaning that they live communally. The importance of being close to the rest of the group varies to some extent among different breeds, but most sheep will become distressed if they are separated from the flock. Sometimes, in a bigger flock, they might split into several groups. However, the groups are very fluid in numbers and which sheep are members of the subgroup.

Occasionally individuals might prefer each other's company within a flock. Merinos, on the other hand, are a tightly knit flock and rarely separate into smaller groups. They graze close to each other. They will only separate into subgroups if there is a shortage



of food.

If new sheep are introduced to a flock, they might not integrate with the flock, but rather form their own group.

If there are different breeds of sheep within the flock, they will tend to stay together with members of the same breed.

If there is change in flocking behaviour the shepherd must pay close attention. If an individual keeps itself separate from the others it could be a sign that it is ill. When pregnant ewes feel that the time has come for lambing they will withdraw from the flock.

Grazing is also a social activity for sheep. They tend to graze together during the first part of the morning and then again later in the afternoon. Sheep, unlike goats, show little sign of dominance within a flock. There is almost no hierarchy in sheep social structure.

What little fighting that might take place will be amongst older members of the flock.

However, a human managing a flock will probably need to be careful of the ram, as he is often aggressive

LIVESTOCK

towards people. This is more noticeable during the breeding season.

The ram will charge and butt a person and can cause serious injuries. It is wise never to trust a ram, even if he has been brought up as a pet. Many a smallholder has been left in a very undignified heap after not keeping an eye on where the ram is or after turning their back on him. If there is more than one ram in the flock they might engage in head butting, particularly before the ewes come into season. This is their way of getting into physical shape in preparation for the breeding. The only time a ewe is likely to show aggressive behaviour, such as hoof stomping, is when she is protecting her lamb.

Sheep do not feel the need to defend their territory, unlike some other livestock.

Sheep are well known for following a leader. However, the leader might simply be the first sheep to move in a new direction. There are very few





examples of a sheep voluntarily choosing to be a leader. So next time it will probably be a different sheep that will take the lead. The following instinct can lead sheep into trouble, if a leader tries to jump across a ravine for example.

Another interesting behaviour is the way sheep use shade. On hot days, if there is shade under a tree, an awning or next to a building, the sheep will use it. If there is no shelter they will stand close together and use each other as shelter. They will put their heads under to the flank or back legs of another sheep, using the shadow that it has cast.

The smallholder should also provide some protection from cold winds in winter as well.

A good shepherd will use the social instincts of sheep to manage a flock. A sheep needs to be able to see the other sheep in the flock, which makes it easier to move, handle or house them.



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IN THE FIELD

Conservation agri is a winner

onservation agriculture (CA) is slowly gaining popularity in South Africa. The Dept of Agriculture (Dalrrd) published a Conservation Agriculture Policy in 2018, stating, "It is envisaged that CA will transform South African land use systems towards a sustainable food production system, adopted by the majority of farmers, which will increase the food security status of South Africa and its citizens, whilst reducing vulnerability to food scarcity and the related risk to national security."

This method of farming is based on three principles:

☐ Minimum disturbance of the soil surface ie, reduced or no till;

☐ Permanent organic soil cover;

☐ Crop rotation.

Continuous use of conventional methods of farming has led to the degradation of the soil. Excessive tilling and using chemical fertilisers is seen to be no longer effective or sustainable. Research (Le Roux et al, 2008) has shown the average soil loss in areas under grain crops in South Africa is 13 tons per ha per year. Natural soil formation cannot keep up with this high environmental demand.

On the other hand, CA enhances



biodiversity and natural biological processes both above and below the ground surface. By practicing minimum soil disturbance the farmer is maintaining minerals within the soil, stopping erosion, and preventing water loss from occurring within the soil.

According to the United Nations' Food & Agriculture Organisation (FAO) (2007), no-till farming increases earthworm populations, which saves soil organic levels for a longer period and still allows the soil to be productive for longer periods. Because the soil is not cultivated with heavy machinery, soil compaction is reduced, so drainage is greatly improved.

Seeds are planted through the organic covering, using a no-till planter. This does the job of opening a slit in the soil and dropping in seed and closing the seed trench. If you are using fertiliser this is applied in the same way.

Crop residues left on the surface practically eliminate wind and water erosion and reduce soil moisture loss through the mulching effect. The

IN THE FIELD

topsoil remains intact and the impact of rain drops is reduced. Maximum plant residue cover acts as a reserve of organically-compounded nutrients as it decomposes to humus.

This type of ground cover also helps keep the temperature consistent and improves moisture levels.

Maintaining a permanent organic cover on the soil has the added benefit that fauna is provided with shelter, winter food and nesting sites. A major tenet of sustainable agriculture is to create and maintain diversity. Crop rotation and intercropping are well known to be beneficial for soil fertility, which further increases the yield. With crop rotation, particular

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nutrients are replenished depending on the crops that are planted. For example, a simple rotation between a heavy nitrogen using plant such as mealies and a nitrogen depositing plant such as soybeans can help maintain a healthy balance of nutrients in the soil.

Crop rotation among vegetables is based on the different families of vegetables. A change to a different family means that the pests or diseases that might have started with the first crop will be cancelled out by a different vegetable being grown. Crop rotation means that there is increased soil micro-organism activity, the value of which should not be underestimated.

More and more wheat producers in the Western Cape are moving towards this thinking. According to Dr Johann Straus from the Research & Technology Development Services of the Western Cape's Dept of Agriculture, as a result of the application of conservation agriculture, the Western Cape is



IN THE FIELD



Benefits of conservation agriculture. currently producing nearly double the amount of wheat on less than half of the area previously planted with wheat.

CA also involves low-input farming technology, which minimises the use of external inputs such as synthetic pesticides, herbicides and inorganic fertilisers. Instead organic matter cycles are exploited and biodynamic preparations along with modern

bacterial herbicides and insecticides are used.

CA systems not only have the potential of reducing costs, increasing yields, increasing net farm income, but also ecological benefits too. This is through lower greenhouse gas emissions, lower input use and carbon sequestration.

Agriculturalists say CA needs a total mind shift and buy-in towards a thorough incorporation of natural processes such as nutrient cycling, nitrogen fixation and pestpredator relationships into agricultural production processes, so ensuring profitable and efficient food production. (Blignaut et all, 2015).

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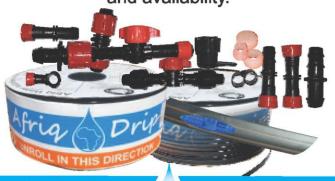






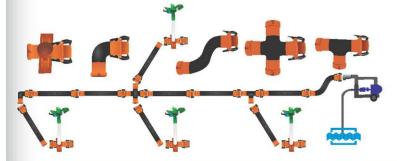
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the torque of one's tractor engine is transferred to the soil via the tyres it will quickly become apparent why correct tyre inflation is absolutely vital if one is to prevent damage to the tyres' sidewalls. If the tyres are underinflated the sides may fold in on themselves when the tractor's torque meets resistance on the ground. And that's when either the relatively thin rubber wall of the tyre may crack or, indeed, the inner canvas walls may tear. And when that happens you are in for a new tyre, potentially costing thousands. In most cases a tractor tyre will be inflated conventionally with air. However, with smaller tractors it is possible to inflate them with water using a special filler that attaches a hosepipe to the tyre's valve. With the hose flowing very slowly water flows into the tyre as air remaining in the tyre escapes.



When doing this the wheel should be rotated so that the valve is at the greatest possible height off the ground to enable the tyre to be filled to the maximum extent. There will always be a small void in the tyre that cannot be filled with water, and it is with this void that the pressure in the tyre is maintained at its working level, by conventional pumping with air. The benefit of filling one's rear tyres with water is to add considerably to the weight of the tractor, which will give better traction and less slippage. There is one danger with water filled tyres, however, and that is that at speed a resonance can build up within the spinning tyre, which can lead to the tractor bouncing and becoming unstable. 🟶





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BUSINESS IDEAS

Starting a 'Pick Your Own' business

o you enjoy the challenge of planting and growing, but become daunted by the prospect of picking and selling your produce? There's a solution that small scale farmers may consider in the form of Pick-Your-Own (PYO) (or You Pick or U Pick) as a method of interacting with customers. It means that the customers come to the farm and pick the fruit, vegetables or flowers themselves. But only consider going the PYO route if your property is not too far out of town, or if by adding other facilities (such as a tea garden) you can turn a visit to your farm into a day-trip for townies. And, if your produce is of sufficient and consistent variety, quality and quantity. Like most options there are pros and cons to be considered.

Advantages

The most obvious advantage is that you will not have to pay workers to harvest the produce, or do the often backbreaking work yourself. Other savings will be in not have to sort, store, pack or transport your produce. If you ask your customers to bring their own containers you won't need to provide packaging, either. The entrepreneurial farmer will also look at what else customers can buy



once they are on the property.
And, by meeting and talking to them you will get to know your customers and find out what their preferences are. You can also use the opportunity to educate customers about produce varieties and growing methods.
Perhaps your farm can become a place where the local community gathers.

You won't need to use distributors or agents, nor give them a cut of the proceeds, and hopefully there will be greater market recognition.

Disadvantages

There are safety risks. There is biosecurity exposure, the possibility of robberies or accidents. These risks will raise your insurance costs. There will be long working hours for whoever is supervising. There will be advertising costs.

Probably the greatest threat is unpredictable weather. People won't come to the smallholding in bad weather, so you'll need to have a back-up plan so that you don't lose your crop.

You will need staff for post-PYO

BUSINESS IDEAS

clean up. They will need to pick up spoiled crop to minimize disease and to increase customer happiness. There will be increased traffic to and on your property ~ do you have decent access roads, and parking?

Things to put in place

A business plan will help you work through the processes and costing. Clearly, some crops are more suited to PYO than others. Strawberries and other berries are high-value and attractive in a PYO setting, as are other fruits that can be picked from ground level. Fruits that can't be reached except by climbing the tree, or on to a ladder, are unsuitable. Bulky, low-value species ∼ and those that need knives or secateurs to harvest ~ such as brassicas, are less suitable. Likewise anything that can't be seen before picking, or which need cleaning before weighing, such as root crops (eg carrots and potatoes) are not suitable because there will be huge wastage of stuff that is pulled, but which is found to



Some crops are more suitable than others.

be too small, misshapen etc.

There need to be clear signs stating the rules, prices, hours, etc, as well as indemnity notices. There must be a check-out stand, placed so that customers have to pass it in order to get back to their cars.

These days there are portable devices that enable the vendor to accept cards rather than cash in payment. Decide whether you are comfortable with taking cash as well and make security arrangements. This will also be the place where other things are on sale, such as refreshments, baked goods, jams, chutneys, preserves, etc.

Decide on how the pricing works.

Decide on how the pricing works.

Often it is based on weight, so you'll



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BUSINESS IDEAS

need an appropriate scale.

There must be ample parking and good roads to your property and on it.

Your staff must be trained, so that they are polite, welcoming and patient. They also need to be knowledgeable about the produce and how to harvest it.

Even if you have said that customers must bring their own containers, you will still need bags or boxes on hand for those who don't.

Consider the arrangements that you will need to make to handle children. You might need a safe, supervised play area for smaller ones who will not be able to help with the picking.

You will need to provide drinking water ~ perhaps you can sell bottled water. You could also sell other drinks.

You could also provide recipes that use the produce you have available for harvest.

There must be toilet facilities. You need to have a marketing plan in place, using social media and advertising. It is important to have an informative, accessible website.

You might also consider other forms of agri-entertainment, such as pony rides, a petting zoo, tractor rides and events or festivals around seasonal events such as solstices, equinoxes, Spring Day or Mid-Winter's Day.





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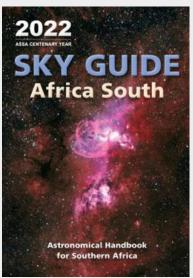
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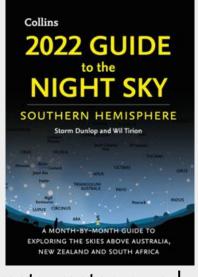
Get these guides to the night sky

emi-rural and rural dwellers are mostly able to see the stars and planets better than townsfolk.

Sky Guide Africa South – 2022: This is the astronomical handbook for southern Africa. It is prepared yearly by the Astronomical Society of Southern Africa (Assa) for the novice, amateur and professional astronomer. It covers the upcoming year's planetary movements, predicted eclipses, meteor showers and more. Star charts plot the evening sky for each season. The guide contains a wealth of information about the sun,







moon, planets, comets, meteors and bright stars, with photos, diagrams, charts and images. Published by Penguin Random House.

2022 Guide to the Night Sky Southern Hemisphere: A month-bymonth guide to exploring the skies above Australia, New Zealand and South Africa will make a thoughtful present for any relatives or friends who may have emigrated. This is a comprehensive handbook to the planets, stars and constellations visible from the southern hemisphere. Diagrams are drawn for the latitude of southern Australia, but include events visible from New Zealand and South Africa. Written and illustrated by astronomical experts, Storm Dunlop and Wil Tirion, content includes: Easy-to-use star maps for each month with descriptions of what to see; detailed charts for positions of planets, minor planets and comets in 2022; diagrams of notable events visible from Australia, and some for New Zealand and South Africa.



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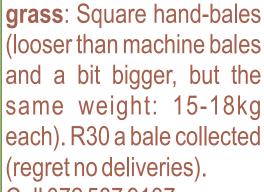
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THE LAST PAGE, BY BLOMMETJIE

Changing weather, changing fruit

and the ocean tides roll in and out ceaselessly, so we are all aware that there is a regularity to the seasons.

Spring, summer, autumn and winter.

Each following the other, and each bringing its own sets of wonder, growth and fruitfulness.

And yet, just as the phases of the moon affect the rise and fall of the tides, so things happen within the seasons that can affect what happens in nature. And smallholders, perhaps more so that town-dwellers, have a great first-hand opportunity to observe and learn from these changes.

Here are some observations from our own smallholding in eastern Gauteng. For a start, the relatively cool temperatures we have enjoyed in the first half of summer have meant that everything is later than usual in maturing and ripening. By now, for example, our mealies (planted as per tradition around the time of Oom Paul's birthday of 10 October), should be man-high and starting to flower. This year they are barely waist height. And all our fruit has been later in ripening. Last winter we experienced some exceptionally cold temperatures, with the mercury in our thermometer dropping to -10°C more than once. Of course, such temperatures are enough to freeze up any open water, as well as water in exposed plumbing resulting in leaks and burst pipes. But such low temperatures have some

enduring pleasant consequences.

For example, because we endeavour to preserve the bird and insect life around us, we spray our fruit trees very conservatively for pests. As a result, our fruit harvests are often less bountiful than they could be, as some of our fruit is infested with worms.

This year, however, the cold weather of winter clearly killed off any insect larvae that were overwintering in our trees, because we have enjoyed a bountiful harvest of peaches and plums, free of insect damage. And, indeed, our ageing plum tree, usually a shy bearer, has been laden with fruit, hanging down from the branches in bunches that resemble what one would find in a red grape vineyard.

Next to our deciduous trees, however, stands a mulberry tree, whose fruit is usually overly plentiful. This year? Not one fruit.

Yet next to the mulberry are a couple of fig trees, from which we are usually lucky to pick only enough for a single bowl of figs and cream. This year both trees are heavily laden and there will be enough for bowls of fruit, as well as fig konfyt in quantities that would fill a farm stall.

That is, if the loeries and mousebirds don't get at them first.

There's no doubt that life on a smallholding can be a bit of a lottery: you win some, and you lose some.