FARM MANAGEMENT: IT PAYS TO PLAN

Farming is like any other business: you need to know where you are, where you want to be and how you are going to get there. Few farmers enjoy the planning and administrative requirements of running a farm, but a formal plan for running the farming business is essential.

Business plan
A farm business plan can help you identify your priorities and determine a timetable for achieving your goals. A lot of information needs to go into the plan:

- What are you going to grow?
- How are you going to grow it?
- How are you going to finance it?
- How are you going to market it?
- Who is responsible for what?
- How does all of this fit within the framework of your business?

It will take some time and quite possibly a few revisions, before you have a workable plan.

A few tips to get started:
Everyone has input. You may not agree on every point but each person with a stake in you operation should have some say on the plan. This is especially important in a family business where emotions can come into play.

Write it down: Getting things down on paper will help you avoid misunderstanding and identify areas in the plan that need a little more work. It
also makes the plan more “official” and more likely that you will stick to it.

*Measurable business goals:* Be specific, and when you do not accomplish what you set out to do, figure out where why and correct your plans for the next season.

*Revisit your plans:* keep an eye on your progress throughout the season and make adjustments as needed.

*Think about the future.* No business plan is complete without some thought about where you want to be not only at the end of the season, but also at the end of next season, five seasons and ten seasons from now.

If you don’t already have a formal planning process, start now. You still might not enjoy meetings, but the positive results on your business will make the whole process worthwhile.

*Source:* Adapted from an article by Jones, R. in American/Western Fruit Grower, March 2005. p 66.
START YOUR OWN MILK PROCESSING BUSINESS

1. **Do market research**
   - Who will buy the milk every day?
   - What price are they willing to pay?
   - What kind of products do they prefer?
   - What kind of packaging do they prefer?

2. **Gather information**
   - How much milk do you produce per day?
   - What equipment do you have?
   - What equipment do you need?
   - What are the building specifications for a milking parlour?
   - What is the pasteurisation cost?
   - Find out about contracts with shops and processors
   - Seek funding if necessary

3. **Draw up a business plan**

4. **Produce good quality milk and sell it at a profit**

5. **Ask customers for feedback on your products**

Cartoon from Hoard’s Dairyman Sept 10 2005, p 598
SHADE FOR SHEEP

Sheep given shade at water points on hot days use the veld more efficiently and gain weight more quickly. Shade is essential, especially for ewes with lambs. Near every water place plant a few trees. Water should be clean and supplied in cement or galvanised troughs, the flow controlled by float or ball valve.

Don’t stint on providing kraals. Sheep should not be driven over long distances. Blowfly infections and the regular dosing of and handling of sheep require enclosures at convenient places. These can be made of smooth wire and wire netting. Place them where one kraal will serve several camps.

Sheep need licks. In only limited parts of the arid regions is the phosphate content high enough to make bone meal for sheep unnecessary. Salt and sulphur should be constantly available. In some areas it is advisable to add trace elements such as iron, copper and cobalt. Licks placed in the veld sufficient for 14 days or a month should be protected from moisture or rain.

In a planned system of grazing, rested veld should always be available for the winter. In dry conditions the natural grazing must be supplemented. Every sheep farm should have its own fodder bank, in the form of grain, hay or silage.

Source: Farming in South Africa, in GROW, Farmer’s Weekly 4 June 2004 p 4
SMALL-SCALE EGG PRODUCTION

Reasons for keeping hens

- You can provide eggs for your family by keeping 12 hens. The hens will lay 9 to 10 eggs each day. In this way you can even start your own small business.
- Of the 10 eggs you can sell 4 to pay for the feed of the hens. That will leave the family with 5 or 6 eggs per day for household consumption. Eggs are a valuable source of protein required for normal growth, especially for children.
- If the demand for eggs in your area is high you could expand and sell more of the eggs.

Cage
It is best to keep the hens in a cage, because

- the hens can be kept in a small space
- the hens are kept in a cleaner environment
- the eggs are not easily broken
- the eggs stay clean
- the eggs can easily be collected
- the hens get fewer diseases
- less chance of the hens being stolen
- they need very little care
- You can buy a cage or make your own
- It is much cheaper to make the cage yourself

- Be sure to make the cage strong enough for the weight of 12 hens
- The size of the cage for 12 laying hens must be: 1,2 metres long by 0,7 metres wide by 0,45 metres high
- You can build it from galvanised weld mesh, cane, bamboo or wattle sticks
- The floor of the cage must be made of wire (weld mesh) so that the hens' droppings will fall through—this ensures that the floor on which they stand stays clean
- Fit a feed trough to the cage. It must be as long as the cage. Plastic or metal gutters can be used as feed troughs
- Plastic cooldrink bottles with drinking nipples are used as drinkers
- The cage should not stand on the ground to ensure that the manure falls through. Put the cage on poles, bricks or old tyres or fasten it to the wall of the house, hut or shed
**Hens**

- It is expensive to buy day-old chicks and rear them, and sometimes the chickens may die.
- It is better to buy young hens (pullets) of 18 to 19 weeks of age which are ready to lay eggs.
- The hens which you buy must be of a very good quality and should be fully vaccinated against all known poultry diseases.
- These hens will start laying within 2 weeks of being bought (when they are 20 to 21 weeks old).
- The hens should be kept for 1 year and then sold as cull hens.
- If you keep them longer, they will start laying fewer eggs and later stop laying altogether.
- You will be able to sell each cull hen for about the same price as a replacement hen.

**Eggs**

- In order for the hens to lay as many eggs as they possibly can, they must have light.
- They should have 16 hours of light every day.
- This can be done simply if you have electricity.
- Put on the lights before sunrise and let them stay on after sunset.
- If you do not have electricity the hens will not lay as many eggs as hens with artificial light.
- In order to maximise egg production without electricity, situate your cage outside to make maximum use of natural daylight.
With 16 hours light everyday each hen will lay about 280 eggs in a year.
Without extra light, each hen will lay about 200 eggs per year.

Feed for the hens

You must give the hens the best feed possible if you want them to lay well.
It is therefore best to buy a good commercial feed such as all mash laying mash.
You can buy it at most cooperatives.
Feed must be available in the feed trough at all times.
Each hen will not eat more than 120 grams of feed.
One bag of feed will last approximately 1 month.

Summary

The 12 hens will lay 9 to 10 eggs every day.
To pay for the feed of the hens you must sell 4 eggs at about 40c per egg.
The family will be left with about 6 eggs per day for consumption.
It will be best to make your own cage, as you will then save about R200,00.
Eggs can provide high-quality protein for your family.

Source: National Department of Agriculture (South Africa) at: http://www.nda.agric.za – Publications
TUNNEL FARMING (VEGETABLES UNDER PROTECTION)

The cultivation of vegetables within the protection of plastic tunnels was first practised in the Republic of South Africa during the early seventies and spread to the north where the largest areas planted with vegetables and flowers occur today.

Advantages
- Vegetables are very nutritious
- Large yields of a high quality can be obtained

In order to produce vegetables under protection following are necessary:

- A wind-free area. If this is not possible, windbreaks must be erected or planted.
- Water must not be very saline. Remember: the water is further enriched by the addition of fertiliser for the plants in the tunnel.
- The tunnel must preferably be situated close to a market, because the harvest must reach the market place as soon as possible.

To avoid attacks by soil-borne diseases, plant the plants in black plastic bags that have a capacity of 15 to 20 litre and draining holes 2,5cm above the
base of the bag. Fill the bag with vermiculite, pearlite or rotted pine bark.

This is very expensive, however, therefore pine sawdust mixed with shavings, can be used as a growth medium. The sawdust/shavings mixture must be obtained from untreated pinewood. The seeds are planted in plant blocks/seed-trays filled with a seedling growth medium. The seeds are sown one seed to each compartment of the seed tray, lightly covered with the growth medium and kept wet. The seedlings remain in the seed tray until they have grown to about 10cm.

They are then planted in the planting bags and kept wet. Climbers are trained up to overhead wires by pieces of string. The bottom part of the string is placed in the planting hole. The plant is placed on top of the string and firmed down into the growth medium to remove air from the roots. Then the other end of the string is fastened to the overhead wire.

Tomatoes, cucumbers, green peppers, beans and sweet melons can all be trained up in this way to the wires that are strung above the rows and are fastened to the roof of the tunnel. The string is constantly wound around the main stem of the plant. This applies to all the plants except green peppers, in which case three or four stems can be used.

All fertiliser must be added to the water with which the plants are watered three to five times a
day. The water with the fertiliser must be applied until it runs out of the drainage holes at the bottom of the bag.

The fertiliser to be used is SOL-U-FERT plus Microfeed plus calcium nitrate. The mixture must have a pH of 6,5 and a conduction of 2,0 milli-Siemens per cm for cucumbers and 2,5 milli-Siemens per cm for tomatoes.

Insects often attack plants in plastic tunnels - therefore a spraying programme is essential.

Tomatoes, English cucumbers and green peppers are at present being cultivated in tunnels. Green peppers and tomatoes can also be cultivated under shade netting. Lettuce, spinach and celery are cultivated mainly under shade netting. In this case, the crops are cultivated in gravel beds and not in tunnels and planting bags.

Source: PC Maree
http://www.elsenburg.com/info/els/index.html
INTEGRATED PEST MANAGEMENT: ORCHARD SANITATION

False codling moth

To combat the problem of false codling moth, infected fruit on trees, as well as fallen fruit, should be removed from the orchard. The earlier in the season the sanitation of the orchard takes place, the better the suppression of the moth population. This beneficial impact is especially noted by the absence of notable yield losses during the season, to a relatively short time before harvesting.

Collect all small fallen fruit and destroy it by burying it at least 300 mm deep, or by putting it in containers filled with water. Larger fruit should be chopped by a tractor-powered hammer mill. If this is not available, the fruit should be kept in closed plastic bags to ensure that the moth larvae will perish. Transparant (biodegradable) plastic bags are unsuitable, as larvae are able to eat their way out. Use thicker, opaque bags.

Orchard sanitation does not only suppress infection by the false codling moth, it also minimises infection by fruit flies. Collection of fallen fruit also ensures the removal of fruit infected by green and blue penicillum, or by brown rot fungi.

Natural veld grazing is not only the cheapest source of livestock feed, but is also an excellent form of dry matter available to livestock farmers. Veld is a natural resource that is the basis for animal production and it must be used optimally with sound conservation principles kept in mind.

Good veld should be palatable, productive, stable and be protected from overgazing and extreme climatic elements as this will result in soil erosion. Veld utilisation should aim to avoid veld deterioration, increase the growth, vigour and productivity, so as to attain a sustainable profit from livestock enterprises.

**Veld deterioration** is the continuous loss of palatability, productivity and usability of veld.
Main causes of veld deterioration

- Overgrazing
- Wrong estimation of long term veld grazing capacity
- Overstocking of natural veld
- Injudicious grazing and land use management
- Lack of knowledge of grass species
- Bush encroachment and alien plant invasion
- Farmer’s views, perceptions and decisions on veld utilisation.

Source: Diutlwileng, P. Look after your veld and it will look after you, in Noordwes Nuus Nov/Des 2005. p 16-17

In the following issues: More on Veld condition, Plant succession, and grazing value.
A NEW USE FOR KENAF

Kenaf, a reedlike crop that towers 3.5 to 4.5m, could offer a new source of insulation material for diminishing road noise in cars and other vehicles, a USDA Agricultural Research Service scientist reports.

Kenaf is now mainly grown as an alternative source of fibre other than tree wood, and is used in low-grade paper, particle board, animal bedding, oil absorbents and other products. Kenaf fibre also can be made into lightweight insulation against road noise that penetrates door panels, dashboards, floor mats, package trays and other areas of a vehicle's interior.

Currently, fibreglass, polyester and polypropylene rank among the top materials of choice for auto insulation. But kenaf holds the advantage of being a renewable resource derived from a domestic crop. Plus, it is lightweight, biodegradable and porous, which helps trap sound waves.


We want to invite our readers to tell us about their success stories as a result of information received from PRAIS
Mrs Tisatenji Phiri of Lupenga village, Nyimba, Zambia writes:

“I am a successful woman in utilisation of donkeys and I am able to attend these tasks:

1. Fetching 40 litres of water per trip using the donkey.
2. Transportation farm produce (cotton) to the market.
3. Fire food fetching
4. I help others – donkeys are easy to manage
5. Interested fellow farmers, I invite you to visit me by friends and supporters.”

Mrs Phiri’s address: c/o Pentacostal Holiness Church, Box 570144, Nyimba, ZAMBIA

Photo and letter sent by Mr Shadrick Mwanza, Principal Livestock officer. He promotes the participation of women in development.