Momekh's
DAIRY FARMING GUIDE

Strategic notes on Dairy Farming.

For entrepreneurs looking to start a dairy farm, especially in Pakistan.

Written by Mohammad M Khan (Momekh)

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Please Read First

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This eBook is written out of experience, and is aimed at people wanting to start a dairy farm, especially in Pakistan. The information contained within this eBook can be applied to dairy farms being started in other parts of the world as well.

The eBook is designed to provide the strategic information sprinkled with a healthy dose of technical/tactical information. Do not expect to find detailed technical information though.

If you already have a dairy farm, this eBook and the information presented within, can help you increase the overall effectiveness and efficiency of your dairy farming operation.

I wish you all the best,
M. (http://blog.momekh.com)

Part 1: Rules of Engagement

1.1 Why Start a Dairy Farm Anyways

I have been working on the dairy farming project since June 2009. My interest was pretty much 'academic' at first; just knowing how the business and the animals operate. It was after almost a year of traveling in and around Punjab, meeting countless number of people in the field, discussing and debating with some very qualified consultants and breeders, that I decided to dip my toes in this project.

I was interested in quite a few facets of Dairy Farming:

The Business Model: Dairy farming has a very unique business model, and no other business has the capability of multiplying its assets while still producing revenue. Remarkable.

The Current Situation: One of many lessons that Richard Branson has taught me is that you should get into a business where you think you can do better. Dairy farming, I knew, had a very, very large room for improvement.

A Very Solid Demand: A lot of businesses and entrepreneurs would consider a 'demand' for something a good enough reason to get into any project. But for me, dairy farming is not only the demand of the market, but also a *need*. People need healthy, quality milk (and meat). It fits in with the idea of *for-profit philanthropy* where I stand a chance of actually helping people out, and earning prayers as well as profits. Now *that's* an inspiration!

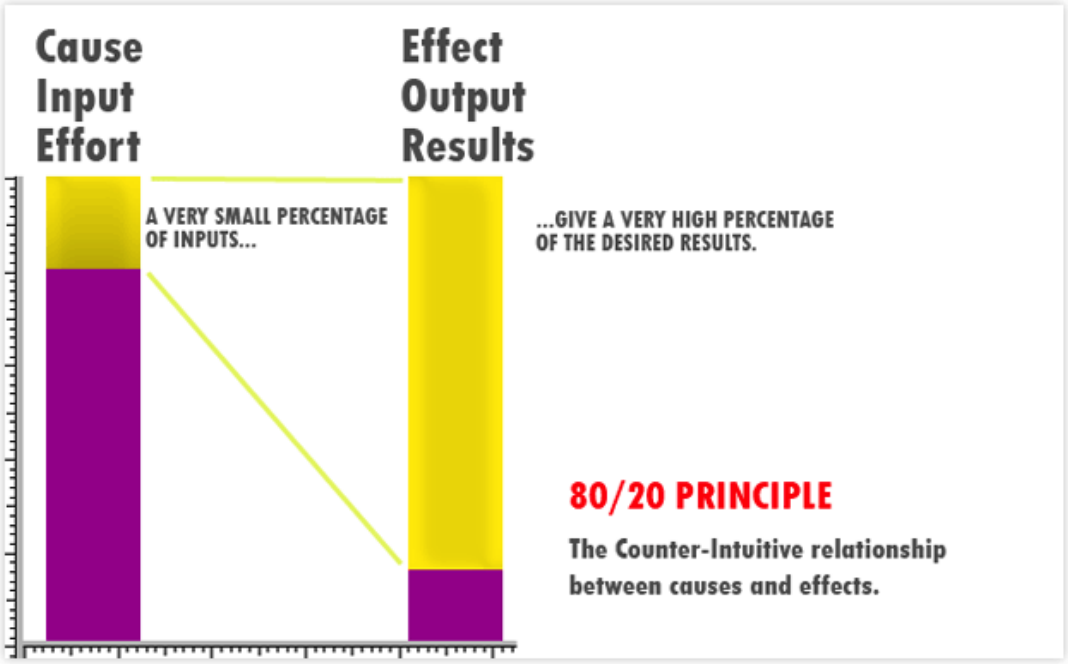
Super Integration: This was not vertical integration as much as it was super integration. I already have two independent projects, one *agriculture farming* and the other is *milk supply within Lahore,* by God's Grace. The dairy farm has the potential of sitting in very nicely between the two, and providing wholesome integration. Although integration of any two businesses, much less three, is a pain in the neck (amongst other body parts), dairy farming provides me with the perfect long-term inspiration for working on these three

projects!

I suggest you also try to write down your own objectives. This will help you **all along the way** God willing. Your objectives will help you decide many important matters such as which animals to buy, whom to employ etc. Again, I highly suggest that you write your own reasons of starting a dairy farm.

1.2 The 80 / 20 Principle & Dairy Farming

The 80/20 principle basically states that only a few things are very important and integral to your success and a large number of other activities, although beneficial to an extent, are not as important.



In any given system, a very small percentage of the inputs will be responsible for a very large percentage of the output. It is wise to focus on that small percentage to further increase productivity. This will give you ample free time (as you will not be focusing on the significant input that *doesn't* produce high output).

A very detailed and a convincing argument is given by Richard Koch in his book The 80/20 Principle: Doing More with Less.

Essentially, we can take away the following points from the principle:

1. Most of the things that we do are of *low value* – **eliminate** those things to free up your resources. This will also give you ample free time!
2. A minority of your efforts will produce a significant amount of your desired results. We need to identify those efforts and **focus** on them (and we will have ample time to do that, because we have already eliminated the things that are of low value).

This is an attempt at simplification, something that I love. I have tried to apply this common-sense type of principle on all of my projects, and by God's Grace, it has turned out to be a fruitful decision!

We need to simplify as much as possible to it becomes most easy for us to run a successful dairy farm, God willing.

I have tried to apply this 80/20 principle on dairy farming. So far, I have identified a few very critical tasks that are **essential** for the success of a dairy farm. **This guide is based on those critical tasks, strategies and systems. I hope and pray that you find it as useful.**

1.3 Own a business VS Run a business

The CEO of a company gets a paycheck. The owner gets the profits. If you haven't thought about that, then this realization will hopefully give you some perspective.

If you decide to *run* your business, then you are an employee. You will, in all probabilities, have to be at a certain place at certain times. In the case of a dairy farm, this may mean you have to be at the farm.

If you decide to *own* your business, and let your employees run it, the game changes. Initially, you will be doing all the tasks one would expect to do; being at the farm, sometimes being the manager, sometimes the accountant and even sometimes the veterinarian. But because you have **a strategic vision** of eventually **delegating** your tasks to someone else, you will always be looking out for the **best processes to emulate**, for the best human resource to get etc.

I did not want to *run* my dairy farm. I have been *alhumdulillah* managing my farm from almost 200 kms away. This gives me time for my other projects.

I highly suggest that you decide *now* whether you want to eventually *own* your dairy farm or *own and run it* as well. This will help you decide on matters clearly.

For example, if I plan to own my dairy farm and leave the *running* of the business to someone else, then whatever I am doing at the farm, I am asking myself, "can someone else do this?" This helps me simplify the processes.

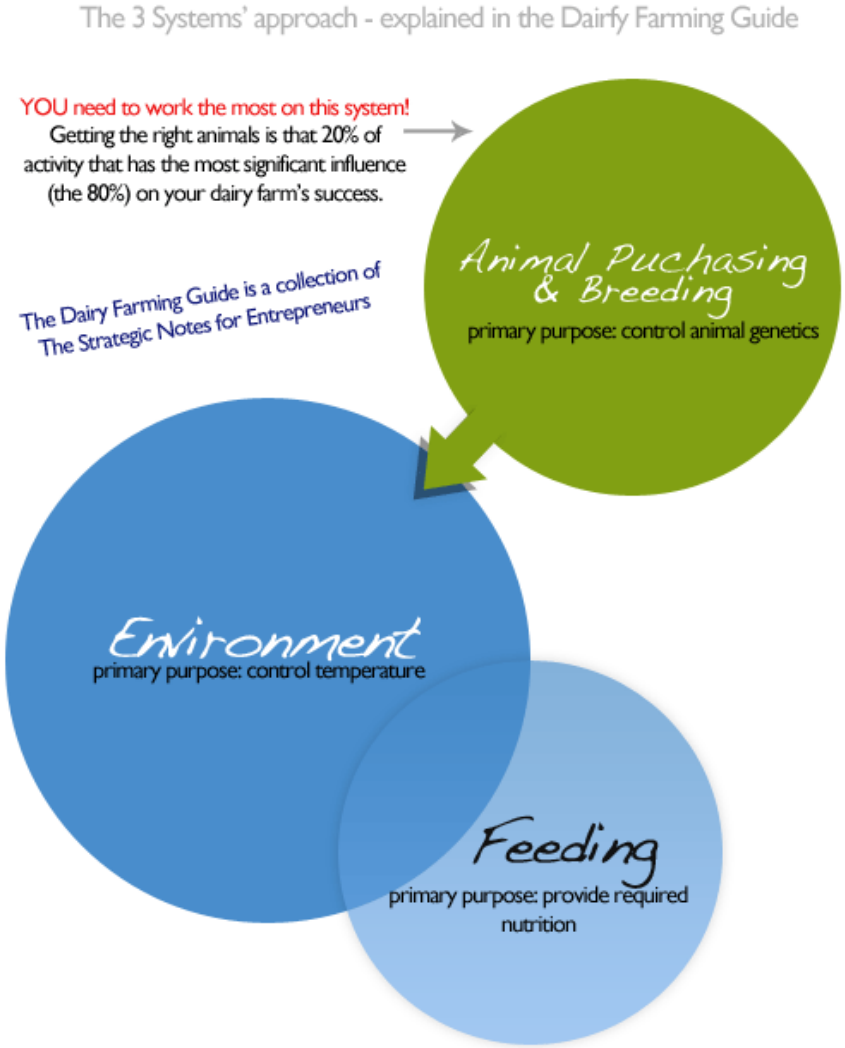
I also understand that a lot of people *want* to run their dairy farms. That is OK too. But it is very important that you *know* which direction you want to take. I wish you all the best.

Part 2: Dairy Farming Business & Business Systems

2.1 The 3 Systems' Approach

I am a fan of business systems. But there was a time when I just did not understand what it meant! So what is a business system?

There are some technical definitions out there. But let's keep it simple. Systems help you get a specified output without your direct intervention. And what does *that* mean? It means that if I hire a personal assistant, then that person represents a system. That person, in fact, *is* the system. My system for handling work load will include a personal assistant who should be able to do things such as go to the bank, pay bills, collect checks from clients etc. The assistant essentially replaces me while delivering the desired output.



There are 3 systems that you, as an entrepreneur, should focus on to ensure a scalable, well-built, profitable dairy farm.

Environment System.

The primary purpose of this system is to control the temperature of your shed. This system should ensure that your animals are comfortable.

Feeding System.

The Feeding System should take care of the animals' nutrition. For most intents and purposes this means that the animals should have access to fresh, clean water and silage.

Animal Purchasing & Breeding

The most important system. This system controls the animal breed. What type of animals to initially buy, and what kind of breeding program to follow.

2.2 The Environment

2.2.1 The importance of Environment

There are some direct benefits that come when you *intelligently* plan out the dairy farm environment:

1. Your animals are easier to manage: you plan it so the animals get to stay **within a clean environment** yet get to roam about a bit as well. Clean environment does not only look good, it is *imperative* for proper disease prevention. To maintain cleanliness, you also need to protect the area (and the animals) from the elements such as rain, too much direct sunlight in the summers and *extreme* cold (do not worry too much about *normal* winters as experienced in the Punjab regions of Pakistan – what we need to *worry* about is the Summer season!)

2. Your animals are easier to feed**:** a **well planned feeding area** (*khurli*, as they call it in Punjabi/Urdu), surprisingly goes a long way in helping you manage your farm.

3. It becomes easier for you to **control the temperature of the shed:** With basic systems of Cooling Fans and Water Sprinklers, you can try to keep a check on Pakistan's hot summers! (It does get quite hot in some areas – as much as 48 degree Celsius – so all that you can do to cool the shed temperature, you should do!).

The cost of your shed does not need to that high. A lot of entrepreneurs are worried that maybe you need to spend millions on your shed. Yes, you can end up spending a lot of money on setting up your dairy shed (I call them *airports* – that is what I feel when some *dairy consultant* wants me to put concrete on the floor, strengthened with steel and what not!). Let me illustrate my point with a true story...

All you Need is Love

I have heard about him, but could not believe it; I wanted to see for myself and if the *rumors* were true, then have the pleasure of having his company.

He was breeding buffalo that gave 20 liters per day on peak lactation. This was (and still is) unheard of amongst *normal* dairy farmers. I had to see for myself and find out what sets him apart. What makes him achieve such results?

When I met him, I asked him plainly, "*Sir, how do you do what you do?*" And his answer was even simpler, "*I love these animals.*"

Spending a good part of the day at his farm, seeing his animals and talking to his son (who was a M.Sc. Graduate in – guess what – veterinarian sciences), I realized that the reason for their success was their *love* for the animals.

I had found the singular reason for their success, their 20% that produced the 80%. It was *love*.

Love? What the hell!?!

How am I supposed to suddenly start *loving* these animals?

But I knew *exactly* what *love* meant. It meant taking care of the animals. ***That's it.*** Without being too philosophical about it, isn't that what love really means? To do the things you would do if you loved someone, that is *exactly how* you start loving someone.

In my quest for simplicity, I guess I found it.

This automatically made it clear in my mind, that if animals are to be *loved*, they need to be taken care of. And the **only way to care for the animals is by giving them the *Environment* that the animals need.**

Make no mistake: setting up the right environment is essential. You just do not need to *copy* whatever expensive design is available in the market.

2.2 The Environment

2.2.2 Always Ask: Is your Primary Purpose being fulfilled?

You need to look out for the following when designing your dairy farm's environment:

1. Protection from the elements (direct sunlight, rain, extreme cold)
2. Maintain the most-desired temperatures for your animals.
3. Nothing else.

OK, so this is sounding too simple. But I must apologize in advance: it will only get simpler.

If you analyze successful dairy farms, you will see a common thread running amongst them. That is that the owners take care of their animals. **The rest is just science and money.** And I assure you, there is a lot of science involved, *and* there is a lot of money!

It's like designing your own home. Sure, you want a swimming pool next to your tennis court. But can you? Will it not be *feasible* to perhaps take a club membership? Or forego your *swimming after tennis?* We do it all the time.

So, bottom line: if you can afford to and you really want to, spend as much as you want and build the airport that looks like a shed. But at the end of the day, all you need is love.

Remember: Make sure your animals are protected from the elements, are not constricted (with rope etc) and are within a comfortable temperature zone. The rest is just *science and money*.

Am I saying that you should not build elaborate sheds? No, I am *not* saying that. I am saying that you, as an entrepreneur, should know *why* you are spending the money on the shed.

If your animals are not being protected from the elements, then you environment is not doing its job.

If the temperature inside your shed in the unforgiving summers of Pakistan is causing **heat stress** in your animals, then your shed is not doing it job, no matter how inexpensive or how expensive it is.

The Solution: Bring the costs down by *understanding* why you need the infrastructure to actually do!

Now let us go through the essentials of making the perfect dairy shed...

2.2 The Environment

2.2.3 Setting Up the Perfect Dairy Shed

What are the objectives that must be met with your dairy shed? We will compare our shed against these objectives.

1. **The animals need free access to feed**

   Never tie down the animals. The employees of my shed know this oft-repeated phrase, "*jaanwar baandhna haraam hai!*" (roughly translated as "tying down the animals is a sin!"). Most people in rural areas are not *comfortable* with the concept of free-roaming animals. That is why you shed *must* have a boundary to keep the animals. But do not tie them. Do not restrict their movement.

2. **The animals need free access to water**

   If you notice your animals, you will see that the animal will go to the water source 16 to 20 times a day!

To produce milk, the animals need a very high volume of water. Do not restrict or time their water supply. The animals should be able to drink whenever it feels like it. I have a large water trough within the shed that has clean water. The trough should be deep enough so that your animals' mouth do not touch the base of the trough; the algae that can develop on the base must not be swallowed by the animals as that is known to cause health complications.

3. **The shed should be well ventilated to maintain comfortable temperatures**

   Ventilation, I confess, is a complicated concept that is perhaps the beyond the scope of this guide. Rest assured, the animals produce a lot of heat, and that heat must be ventilated out of the shed. But a much more grave problem is the Summers (especially in Punjab). The typical problem faced in the summers is too much heat, and too much humidity.

   To control the temperatures you **must** install cooling fans coupled with a water sprinkler systems. Please DO NOT MAKE THE MISTAKE that I made; I was only a month late in installing my cooling fan, and two of my high yielders fell from 24 liters to less than 10 liters per day! Heat stress is your animals

is possibly one of the most difficult to control. A lot of people might suggest that it is OK to forego this expense (sprinkler system alone costs around 20,000 rupee to install, and a good industrial fan costs around 12,000 rupees). Do not listen to these people. It is essential that you set up your shed to give your animals the best chance to produce at their peak.

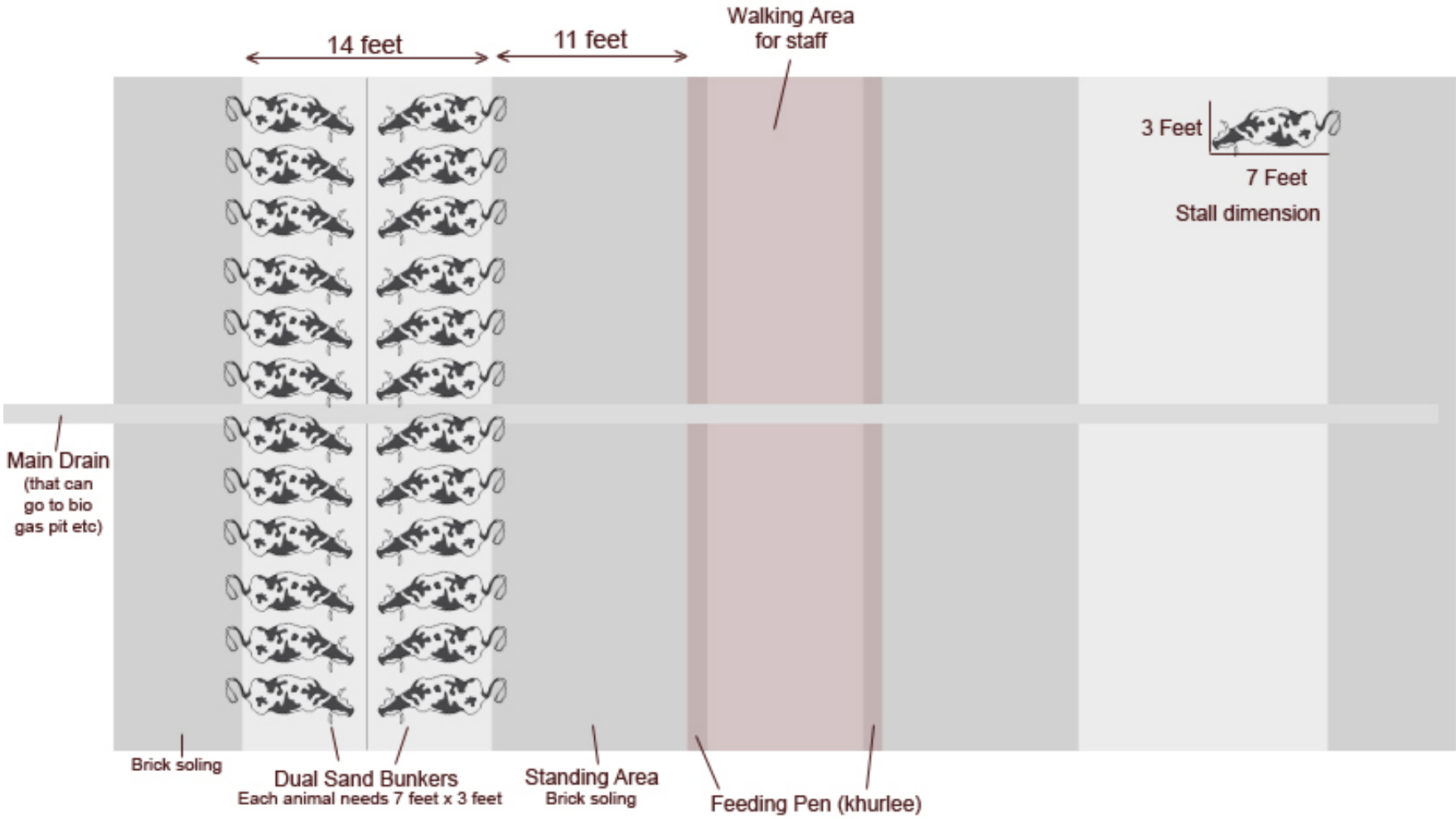
4. **The shed should offer protection to the elements like rain, direct sunlight**

   When it rains, it pours. The rains in my area (central Punjab) can get very, very nasty. It is not the water, but the storm that can potentially be very harmful. Make sure your shed construction can sustain the storms of that area. If you are new to the area, it is a good idea to *ask* the locals. They would know the kind of structure that would sustain itself in the storms.

5. **The animals should have comfortable bedding**

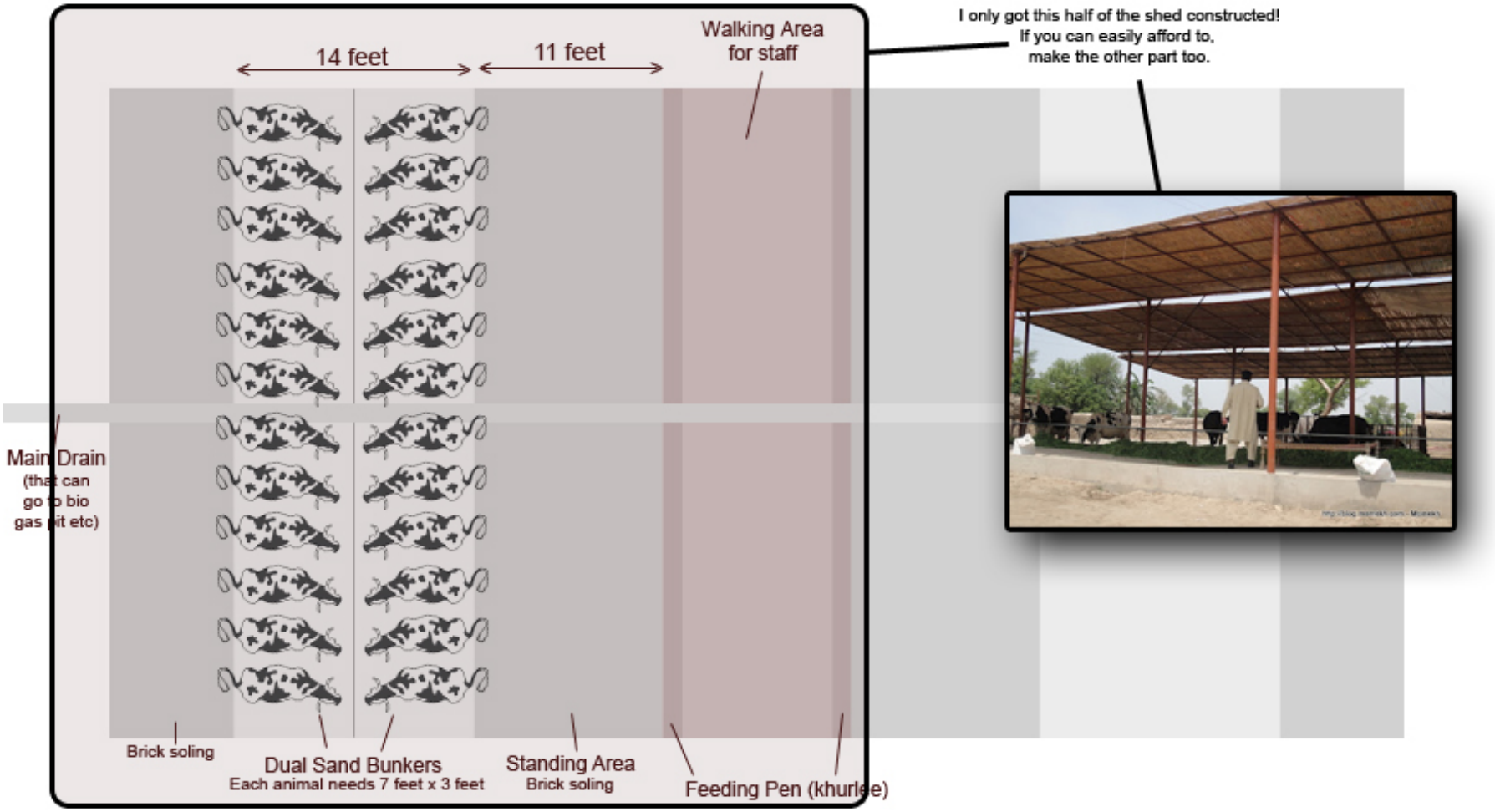
   I use sand as it is easier to clean afterward.

Here's the design of the shed that I made myself, after going through quite a few shed design diagrams.



The above is how I designed my shed. Also note, you do not have to design the whole of the shed in one go.

I took the liberty of constructing half of it, much to the irritation of *dairy consultants*. But we need to find a common ground between expense and quality infrastructure.



I also have yet to install the stalls in the shed. Stalls are important as they are proven to increase milk yield.

I was tempted to give you more details as to *construction materials* used, how much they cost me etc. I would cover the topic of shed costs later, but please note, the above design and construction materials I used are subject to your specific conditions. No entrepreneur should rely on the costing done by someone else. All costing should be done on per project basis, and depending on the area where the cost is being incurred. For example, the cost of this shed will be very different for someone in southern Punjab than for someone constructing something like this in the northern province. So imagine the variation in cost if you are thinking of building a dairy farm in Nepal, Bangladesh or Mozambique etc!

I get a lot of questions regarding the following two, so I thought I better further explain...hope you find them useful.

1. The Necessity of Cooling Fans, and
2. The Cost of Shed Design.

The Necessity of Cooling Fans For Your Dairy Farm

Pakistan has hot summers. Very hot summers. The milk producing capacity of your cows is directly – yes, directly – related to the temperature of the environment.

Some say that after 26 degree Celsius, each unit increase in temperature has a significantly negative effect on the milking volume of the cow. In plain English, this means that we need to keep the temperature of the environment as low as we can economically and practically manage.

Fans do the job. I know some people use the normal ceiling or pedestal fans for this job, and that is better than having no fans. But if you can afford it, you should go for the industrial fans.

The Fan from **Bilal Engineering** costed me around **11,000 PKR**. Yes, that is expensive for a fan.

A lot of people may say that do not spend this much money on such 'luxuries' etc. I remember one of my family members laugh out loud, "what!? Such a high priced fan for cows? This is just too much!". You will, in

all probabilities, also find such advice for well-meaning individuals. Please, do not listen to them. This *cooling* system is essential. You are spending upwards of 120,000 rupees per animal, and once you reach a herd size of 10, that's more than a million rupees worth of asset. And you are going to hold back on 11,000 rupees to cut costs? Please do not fall in to that trap... setting up a cooling system is part of your infrastructure and is very much necessary.

The Exact Cost of Shed Design

I get this question the most. You are also probably very interested in knowing the exact cost of shed design. You also have probably seen the SMEDA's pre-feasibility study. I think this is the wrong way to approach this.

There is no single formula for this. I am sorry, I can not give you an exact cost, because that can be misleading. Your cost can be dramatically different than mine. I know that my Shed costed my less than 200,000 rupees. I know that I overspent on the Silage pits but eventually got them at a much cheaper rate. There is no fixed cost. There is only a method. You have to work out the cost yourself; find out the cost in *your area*!

2.3 Feeding

2.3.1 Silage – All You Need To Know

It took me some time to explain the Environment system. I had to use *so many words*. With the Feeding System, I only have one word to define it! Yes, one word i.e. **silage**.

I do not remember now who was the one who told me this simple formula, but God bless him, he said, **"do not buy your first animal until you have your silage ready."** That is one of the best decisions I ever made, while starting my dairy farm.

And what if you already have set up a dairy farm, have already bought a few animals, then what? As you will see, I suggest that, if you have to, then you sell one or two animals to sort out your silage. Yes, it is *that* important.

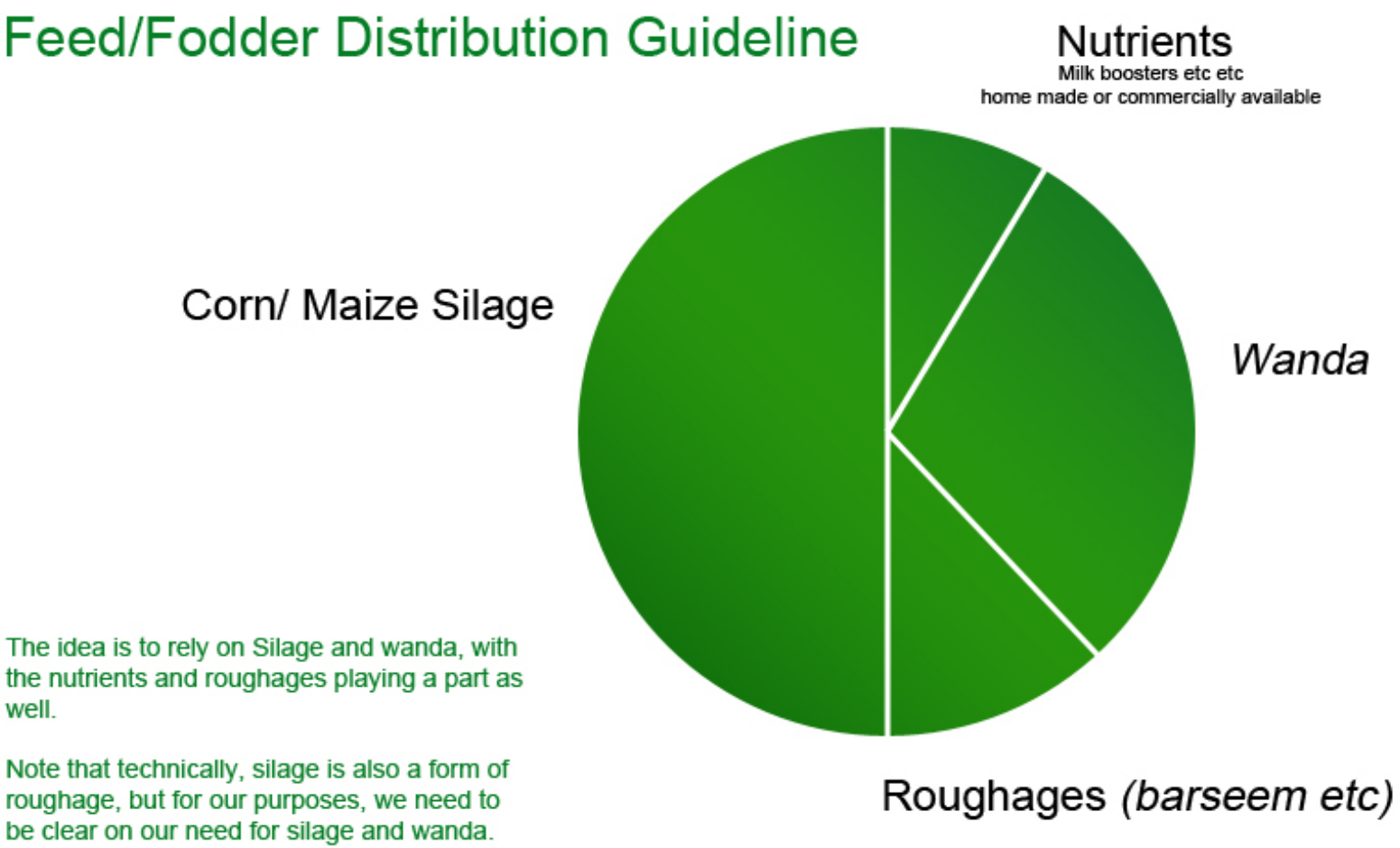
What is Silage?

Silage is usually made of corn and is considered one of the best feed for the animals. Silage is the name of the process through which corn is fermented to be ready for easier digestion by the ruminant cows.

Note that silage is the main feed for your animals, the main course if you may. I have seen some people think that fodder and silage are completely two separate things, and that the animals need both. They are confusing everything here!

Fodder is a generic term, used to indicate the 'food' that you give to your cows/buffalo. Silage is very much a type of fodder in that sense. Other food items, such as *'jawaar'* and '*barseem'* (Urdu names), are also fodder. But remember, silage is the best type of food and should always take precedence over any other type of fodder. Also remember, you do not NEED any other fodder if you are giving silage to your animals.

If you can manage then you can follow the following fodder distribution for your animals:



The above diagram is to present a general idea of how to think about the feed requirements for your animals.

There is no substitute for silage especially if you want to run a successful dairy farm here in Pakistan.

I know, you will see some dairy farms with high-yielding animals that do not have silage, but if you'll look closer, you'll see that they are paying the utmost attention to the feed of the animal; other macro and micro nutrients are being given to the animals that in the long run, turn out to be *more* expensive than silage.

Before we move onto the silage preparation writeup, there is one thing I'd like to point out...

2.3 Feeding

2.3.2 The Shocking Misconception About Silage

The more I travelled around Punjab, visiting different dairy farms and seeing their method, I quickly realized the basic difference in approach.

The successful dairy farmers almost always start with the feed! They want to make sure that the animals are fed properly.

But a large number of them did not see silage the way I saw it. They considered its nutritional value. It was and is a very important part of the animals' nutrition, there was and is no doubt about that. But I consider its *business* value. Let me explain...

The biggest misconception I hear is that silage is *just* for nutritional value. It is not.

As a business owner, an entrepreneur, your job is to make things simpler (and hopefully easier). Silage is what allows you to do that.

In a traditional dairy farm – and you can ask any dairy farmer about this – there is *proper routine* and a workforce required to go to the fields every morning to cut the fresh fodder, load it up, bring it to the farm, and then place it front of the animals. Then the same thing happens in the evening.

If for one reason or the other, someone gets late, the whole chain of events gets late, meaning your animals have to *wait* for their food. Not good. If they miscalculate and some animals eat more than planned (which is normally a good thing), then that creates a problem too; now you have to wait for hours for the fresh fodder to be cut and brought. Costs, time, uncontrollable elements.

In essence, it is a logistical nightmare. When I started to consider dairy farming, I knew I had to go for simplicity. And silage offered me that.

I am not joking; I never, not even once, considered the nutritional value of silage. Everyone - vets, progressive farm owners etc - told me how good the maize silage is. Of course it was. I would have opted for it even if the logistical benefit was not there. But I am hoping you see that it is important to *simplify* your business processes. You make it easier for your business to succeed. You make it easier for your employees to succeed. God willing.

As a business owner, I knew that silage would allow me to hire less people (that saves cost), and it will allow my employee to very easily manage the whole feeding system (that helps my employees). Of course, maize silage is beneficial for the animals. Of course, maize silage offers nutritions evenly within each animal. But from a business point of view, having silage on the farm allows you to really *contain* your enterprise.

I always try to align my business with my own preferences, instead of the other way around. I suggest you do the same, as this will, God willing, allow for a more wholesome life. Approaching business decisions from the perspective of simplicity helps not only in increasing profits in the long run, it also helps in achieving a wholesome life, God willing.

Now on with the silage preparation...

2.3 Feeding

2.3.3 How to Make (Corn) Silage

The maize is cut directly from the field using a special cutter to finely cut the maize into small pieces. These pieces are then dumped into silage pits (discussed below). The corn pieces are then pressed, usually using a tractor (or small bulldozer even!). The idea is to press and remove as much air from the maize dump as possible. After the corn is pressed, it is covered with a waterproof sheet. The idea is to keep the pressed maize air tight.

It takes approximately 15 to 20 days for the silage to be ready for use.

A point to note is that when you **grow** the maize for silage, it is a slightly different than the usual way of growing maize. The only difference is that you sow the plants a little closer than you'd normally plant.

So to simplify further:

Here's how to make your own silage, step by step.

1. You grow corn and when it reaches a certain stage, you cut it using a special cutter.
2. The corn (the cob and the stalk) is chopped into very thin pieces.
3. The thinly cut corn is transported to the silage pit and the heap needs to be pressed to remove as much oxygen/air from it as possible. Normally, driving a tractor over each lot of chopped maize is sufficient.
4. After you have filled the silage pit, you cover it with a plastic sheet and seal it further with mud.
5. Make sure the silage is sealed so that wind and rain doesn't creep in.
6. The silage will be ready in about 20 days.

Now you will be able to monitor each stage of silage preparation, making sure no one is taking you for a ride.

2.3 Feeding

2.3.4 Setting up Your Silage Pits

The silage pits themselves are an important part of the equation. I mention them here in detail because frankly, silage pits confused me initially. There were many ways of making them, and all of them costed significant amount of money. So I did some preliminary research. I present that here in hopes that it will be beneficial to you. I also tell you the silage pits that I ended up making.

Silage that is used for dairy farm is prepared and stored in silage pits. There are various methods for making silage pits:

1. You can dig out a rectangular shaped trench and then use the tractor to press the silage. One side of the trench is sloped inwards for the tractor to move up and down while pressing.
2. You can put up walls on three sides, and dump and then press the corn there.
3. You can even use a waterproof sheet, lay it on the ground, press the corn on top of it, and then seal the

pit from all sides. This is very economical as you don't have to dig in or construct the three walls, as in the above two methods. But the only minor drawback is that you can't make a large heap (but you can many smaller ones if you want!)

Note that silage is an integral and essential part of your overall infrastructure for your dairy farm business. In Pakistan, corn is readily grown and you can even use the period between Wheat harvest and Rice sowing to 'quickly' grow the maize to be used for silage preparation (I am *Alhumdulillah* doing that!). But whatever you have to do, remember that silage for a dairy farm in Pakistan is essential (I can't repeat this often, now can I?).

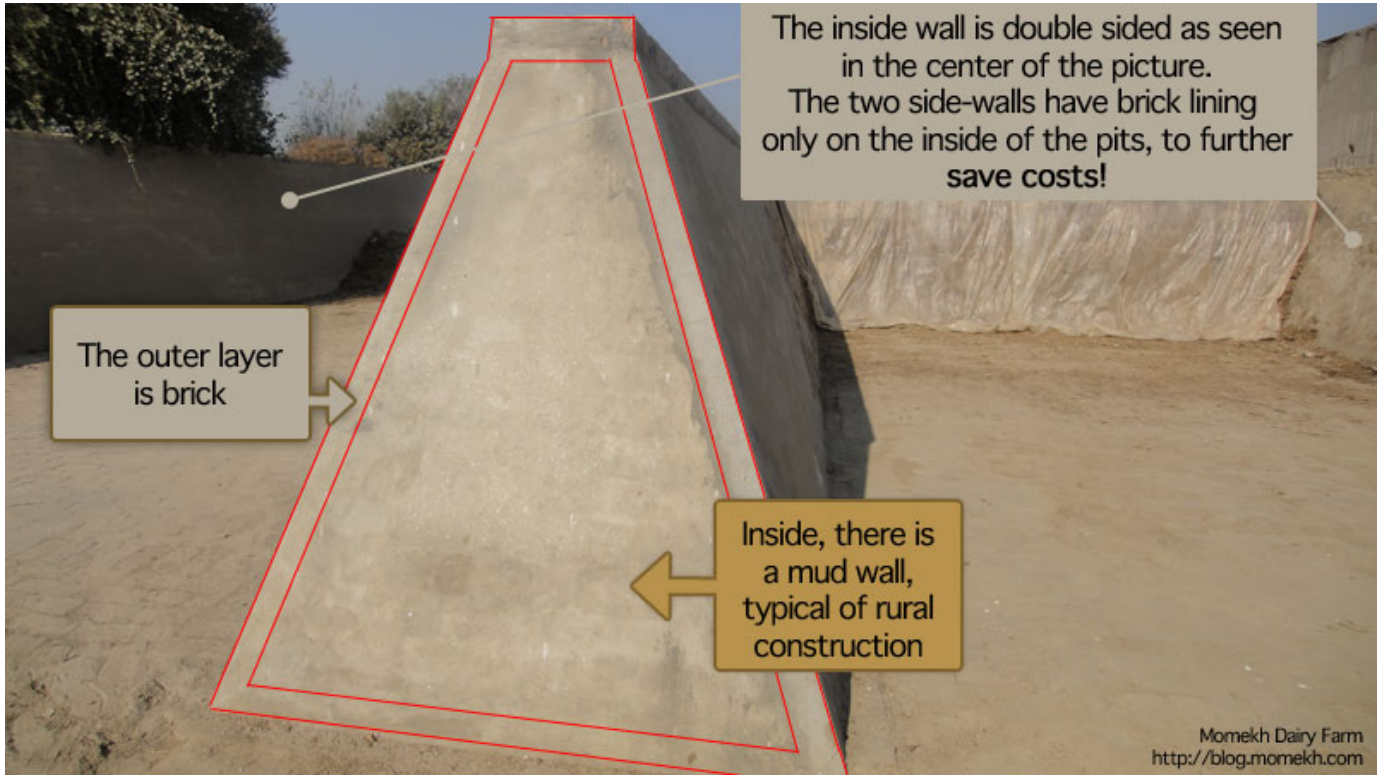
You need to have your **silage pits ready** before you bring in the chopped maize, of course. I planted the maize and the silage pits construction (the method that I've used – mentioned below) should not take more than 14 days total.

I recommend you **make two silage pits**. This way, when one is being used, you can fill up the other one;

you don't want a situation where you do not have silage (farms that have only one silage pit usually suffer because they have to wait).

One normally-suggested way of making a silage pit is putting up a simple wall on three boundaries. The wall needs to be thick enough to sustain the tractor pushing down on the silage etc otherwise the walls may break out after a few seasons. This leads to people investing a lot of money in making the pits.

A very robust, solid solution was suggested to me by a local vet. It saved costs and ensured cleanliness in and around the silage area. The following illustration will help explain, God willing:



The bottom of the wall is about 3.5 feet and the top is about 9 inches wide (length of a brick). These measurements of course need not be exact to the last inch! Just make sure that the entrance to these pits are wide enough for a tractor with a trolley can enter easily. The bottom must be brick-lined if you have a rats problem (I do have that problem!).

A final note on silage pits. Please note that I made these type of silage pits because of a number of reasons. Your reasons may vary. There *are* cheaper options available and I **highly, highly** recommend that you ask around. Maybe by the time you are reading this, a more cost-effective solution is widely implemented.

Also note, feeding is that part of the infrastructure that must be there at ALL COSTS! **If you already have a dairy farm** and are looking to expand and/or improve, even then, **sell an animal or two to get the feeding sorted out. I wish you all the best.**

2.4 Animal Purchasing & Breeding

2.4.1 Quality VS Quantity

If you come up to me and tell me that you have a limited budget and want to spend money on only ONE of the three systems, I will – without hesitation – tell you to spend money on buying quality animals.

This does not mean I am saying that you should buy *expensive* animals. No not at all. What I mean is that you can have a successful dairy farm *even* if you have an average shed and an average feeding system, but you need an above-average herd.

One thing I learnt is to not in think in terms of number of animals. When someone asks you about the size of your dairy farm, do not say, “I have x number of animals,” or “I plan to have x number of animals”.

Think in terms of liters, “I have x liters of milk per day,” or “I plan to have x liters of milk per day” etc. This kind of thinking will, God willing, lead to a more successful approach towards your dairy farm.

Any why is this subtle difference so important? Why is such an approach that 20% which will yield 80% of the result?

Because you should be counting what you are selling, right? You are not selling cows, you are selling milk. You should be concerned with the milk, not the cows.

And most importantly, because you would want to have 200 liters of milk from 10 animals rather than 200 liters from 15. The 5 extra animals will increase your fodder costs by 50%. Your aim is to produce the maximum amount of milk from the minimum number of animals.

So, again, try not to think in terms of number of animals, try to think in terms of liters per day. Or if you are good in mental calculations, think in terms of ratios (Liters / Herd Size)! But I think you get the picture...

And now that you are thinking in terms of milk and not herd size, I think it is the right time to tell you that the focus of your dairy farm is not really milk!

Allow me to explain...

2.4 Animal Purchasing & Breeding

2.4.2 Your Focus is Not Milk

You should not think in terms of the total herd size, you should think in terms of liters of milk. You want to produce the maximum amount of milk with the least amount of dairy animals. And how do you get the maximum liters per day? By focusing not on milk!

It is simple analysis. To produce high liters, you need good quality animals. And because you *must* simplify your processes, and you are in it for the long run, you should choose to focus on animal quality. This will make decision simpler and your farm will be a successful one, God willing.

You know how they say that do not focus on earning lots of money, instead focus on making the best product or providing the best service; the money will follow. The same applies here. Focusing on animals gives you the

right focus.

For example, if you are focusing just on the milk, you will not be paying any attention to the calves of your animals. I see this problem everywhere; the dairy farmer does not care about the feed that is given to the calves. After all, the calves are not producing any milk, so why *waste* your money? You are better off spending your money on the animals that are producing milk, right? Wrong!

To all new dairy farmers: Ideally, you buy animals from the market only once! And that is to start your dairy farm. Your actual herd are the calves, that will grow up in your caring environment, with the best feed. That is how you should be approaching your dairy farming enterprise. When I realized that, I found it to be such a refreshing way of approaching the dairy farming business. I hope this attitude helps you too.

Your focus should be on building a healthy, nucleus herd. Much like the top universities that produce 100% result, you will only pick and keep the best of the lot, so that in the long run, you will have a profitable dairy

farm.

2.4 Animal Purchasing & Breeding

2.4.3 Buying Quality Animals & Herd Management

You need to understand two basic guidelines:

1. Animal Procurement (getting good quality animals)
2. Culling (removing animals based on a certain criteria)

Animal Procurement

The hardest part of setting up a dairy farm is the **procurement of good-quality, high-yielding, environment-hardened animals**. This is also the **most important activity** for an owner of a dairy farm.

Do not be afraid of traveling to different locations to hunt down well-bred animals.

A lot of 'expert dairy consultants' will tell you to stay away from buffalo. But that doesn't mean you can't make it profitable. It just means that in that consultant's view, it is easier to be profitable with cows. That again is not a given; your situation may be such that it is easier for you to manage a successful buffalo farm than a cow farm (e.g. You have access to some very qualified, experienced people who can procure and take care of buffalo instead of cows).

I personally prefer buffalo because the people in Pakistan are *tuned* to the buffalo milk. As I also have a small milk distribution in Lahore, I know from first hand experience that most households do not like cow milk in fact.

Because finding good quality animals is difficult, you will find a lot of people recommend that you go for imported cows. But I did not go for them and I recommend that you don't either.

A lot of people will tell you that you shouldn't because imported cows are expensive. I want you to know that imported cows are *not* expensive. If you are paying 160,000 (PKR) for a cross-bred cow, then paying 210,000 for an imported cow does not make the cow 'expensive expensive', it just makes it 'relatively expensive'. And your target is not to increase the number of heads, but to increase the number of liters of milk. So an imported cow averaging 25 to 30 liters per day per lactation is much better than a cross-bred cow averaging 14 to 18 liters per lactation. The ROI is just plain and simple and you should stop listening to people who tell you otherwise.

But that's not the reason why you should not get imported cows. The number one problem with imported cows is that they are unable to withstand the blast of heat of the Pakistani summers. Setting up the right infrastructure is essential, but that is not the only thing that you'd have to look into. There is disease and the very little margin of error that the imported cows give to you and your management.

I would suggest you do what I am doing; find good-quality **locally bred cows**, make sure that your dairy farm shed and cooling infrastructure is very much in place and then run the farm for at least a year to gauge

how well your infrastructure (shed, cooling etc) is handling your locally-bred cows.

But that brings me back to the main point: **finding high-quality locally bred cows is the hardest thing you'd have to do. It is also the MOST IMPORTANT thing for any dairy farm.** As I have repeated this repeatedly (!!), **a dairy farm's main function is to procure and breed good-quality cows. The milk (and meat) is a by product of that main function.**

So be prepared to hunt down good animals wherever you can find them. I remember traveling a total of 2000 kms plus, by road, all over Punjab, in *one week*, just to see and meet cow & buffalo breeders. I didn't pay half as much attention to the shed that I was constructing, or even the silage pits that were being prepared at the time, because purchasing the right animals is that one 20% activity that gives more than 80% of the result.

Culling

Culling is the process of removing breeding animals from a group based on a specific criteria. This is done either to reinforce certain desirable characteristics or to remove certain undesirable characteristics from the group*.

To buy quality animals is one thing, but you as a business owner need to keep your herd *trimmed*. Again, remember please, the focus is to maximize the liters while minimizing herd size; that is something to be proud of, right?

For example, I know a very successful dairy farmer that has the following formula for culling:

> *If after giving birth, the animals does not give 20 liters of milk within 21 days, they sell that animal. No questions asked.*

It is with simple, hard rules like the one above that the dairy farmer has been able to buy agriculture land from the profits of his dairy farm. It is why people from all over Punjab come to buy his animals, at premium prices. It is the reason that his herd size is, at any given time, around 25 animals only! Quality VS Quantity *and* a clear focus on animal breed!

I think it is a great practice to think over setting your own criteria. But remember, you need to be selling/culling animals as you proceed.

* this definition of *Culling* is taken from Wikipedia. For more information on Culling, visit the Wikipedia page

Part 3: The People Involved in Dairy Farming

Part 3: The People Involved in Dairy Farming

3.1 Who Can Help & Who Just Won't

I started my small dairy farm in January, 2011. The construction of the shed started about 4 months before that, and my research started sometime in 2009. One of my closest friends, Sohail, wanted to start a dairy farm. I remember warning him then; “it's a long term project, man, are you sure?” I am glad he was sure.

I have met some interesting (read: weird) people. I have been disappointed by some people's negativity and have been blown away by others' generosity. But I have made a choice long ago; I will only remember the good ones, and forget the bad ones. In all honesty, in dairy farming specifically, I did not find many bad ones.

You have heard stories of people taking advantage of you, stories of people who just will not help you, people who will actually give you bad information. I did not find those people.

The journey so far has been one where my only feeling is that of gratefulness. The mentors and teachers that I have tried to seek, were found and they lived up to and beyond my expectation.

I am not the one to complain. It is very easy to complain about the single speck of sand that manages to get stuck in your eyes. It is easy to forget about all the other beautiful things the wind has wept up.

I assure you, from direct experience, that the field of dairy farming in specific, and the people I have met in general, have all been very helpful. I did not expect them to treat me in the best possible way, I only went there to ask some thought out questions. And they all have been happy to help. From Malik Hanif of Hafizabad, to Chaudary Rafiq of Sargodha, to Mustafa Mandal of Pakpattan to everyone in between, I have only found valuable information. It costed me a lot of money to travel, to take the time out, to manage my other projects, but it has all been worth it.

I know that some negative people will always find something to complain about. That's OK too. Your only concern should be to get the knowledge, the method, the technique. It is a bonus if your teacher happens to have a good heart. What can I say, I have had that bonus, by God's Grace and by God's Grace alone. I wish you my kind of success, where you find people with hearts.

Dreaming & End Notes

I get a lot of queries where people tell me that they *dream* of starting a dairy farm. Or an online business. Or a retail shop, or a home-based business. My friend, a lawyer, once asked me, "*they say 'dream' and not 'a good investment', why is that*?" It is a valid point.

One should consider if an enterprise is a sound investment, but it usually doesn't work that way, does it? Most of us dream, and then find ways of rationalizing it, justifying it, making it profitable. That's how we change the world. Rationality, as always, is *necessary* to show you the how. But the dream is one forcing your rationality, and is the fuel that will make you go through it. God willing.

Beware: dreams have a bad habit of *remaining* dreams. Our dreams need to be converted into a *plan*. Start taking action now. I wish you all the best.

4.1 Excel Sheets to the Rescue

I do not know about you, but I love spreadsheets. Most people know them as Excel (Excel is a famous software by Microsoft).

I think they make it easy to dream.

Spread out the cash situation over five years, and just dream! But jokes aside, spreadsheets has some serious value, especially if you are starting out in dairy farming. If you are totally new to the concept of Cash Flow Forecasting, I recommend you read this article first to cover the basics.

I also understand that many people do not use this method. That's OK too. The spreadsheet itself that I use for Cash Flow Forecasting for my dairy farming project is with me, and if you want the customized template,

just email me at my personal email address (mmk@momekh.com) and I will send you the file, God willing.

End Notes

I want to thank you for reading and buying this book. Thank you so much for the support.

By God's Grace, I have been able to involve myself in a number of projects, and most of them did start with a basic premise of “What if...” or “Can I...”. Dairy Farming is rightly considered a long-term, enduring project -- but writing a guide that can help entrepreneurs is a project in itself too. I want you to tell me if you found the eBook useful.

I am experimenting with the new medium of eBooks and digital content, and I write about my entrepreneurial adventures over at my blog (LifeETC http://blog.momekh.com/). The idea is to have a business that supports

your lifestyle, not the other way around.

Again, thank you for your support and I look forward to your feedback.

May God give you the best there is!

Happy farming!

M.

P.S. I write about Creative Self Employment to live a wholesome life. My blog won the Best Business Blog in Pakistan for 2011 and has more than a thousand email subscribers from over 30 countries. You can join me there too (http://blog.momekh.com/).