

SMALL-SCALE SEED ENTERPRISE

Start-up and Management

*Guidelines & Business Skills
for Seed Producers in Afghanistan*



Ministry of Agriculture, Irrigation and Livestock
&
Food and Agriculture Organization of the United Nations, Kabul, Afghanistan.



SMAL-SCALE SEED ENTERPRISE

Start-up and Management

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Foreword

The Food and Agriculture Organization of the United Nations (FAO) gives a particular attention to seed industry development in developing countries as part of its mission of freeing the world from hunger. Since 1982, FAO has had a continuous history of involvement in the seed sector of Afghanistan, which has resulted in the implementation of several seed projects in close partnership with the Ministry of Agriculture and funding from countries including The European Union, Germany, Japan, The Netherlands, Sweden and Switzerland.

However, up to 2003, a greater attention was given to variety development and the technology of seed production mainly in the public sector. With limited success in this area, a change in direction became necessary following the establishment of a democratic government after a long period of conflict. It is for this reason that the current European Union funded project of euro 10 million for Variety and Seed Industry Development focuses on commercialization of the seed industry as a means of attracting private interest and investment into this area. This project is being implemented jointly by FAO and the Ministry of Agriculture, Irrigation and Livestock (MAIL), and has played a leading role in the preparation of a National Seeds Policy that was adopted recently in Afghanistan and a seed law that is being considered for enactment.

In 2004, the MAIL/FAO/EC seed project promoted the establishment of eight pilot private seed enterprises by groups of farmers in five provinces of Afghanistan. These enterprises which are now in their third year of operation demonstrate a

great potential and are expected to account for about 60% of the total quality wheat seed supply for farmers during the 2007/08 season. However, there is a pressing need for training the new producers in the technical aspects of seed production and more importantly in the business management aspects of these enterprises and any future ones that may emerge.

This handbook is developed as a guide for the much needed training required by the new small-scale seed enterprises. It focuses on developing entrepreneurial skills and attitudes among farmer groups in Afghanistan who are or will be interested in establishing private seed businesses. The contents of this book have been field tested during informal training sessions in farming communities and were highly appreciated by staff and farmers. For nationwide use in Afghanistan, the handbook has been translated into Dari and will later be translated into Pashto.

It is hoped that this handbook will help to promote further interest in commercial seed production among national authorities, donors and farming communities, and hence contribute to increased crop productivity, farm incomes, food security and freedom from hunger in Afghanistan and other developing countries around the world that would find the book useful.

Tekeste Ghebray Tekie
FAO Representative in Afghanistan

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For the successful production of this handbook, many thanks go to:

- Messrs Mir Shafiuddin Mirzad, Abdullah Hakimi and Shahabuddin Shahab for translating the book into the Dari language.
- Other project staff who contributed to this publication through their valuable inputs, comments and suggestions at different stages during the preparation of the manuscript.
- The seed producing enterprises and many farmers, whose knowledge and experiences are reflected in this handbook.
- Mr. Henry Babatunde Ogunlaiye (Illustration Consultant), for his valuable contribution and key role in creating the many interesting illustrations as a means of putting the several technical messages into context.

Introduction

This handbook has been prepared in response to requests for training and guidance in seed production and seed business management by members of eight pilot group enterprises that have been established under the FAO seed programme in Afghanistan. The material in the book has therefore been put together and written for farmers who have little knowledge of formal seed technology or experience in managing private businesses.

The handbook is presented in ten chapters. Since it is intended for training purposes, each chapter is supplemented by exercises that are meant to provoke discussion and brainstorming in the training sessions.

Chapter 1 explains what a seed enterprise means, and draws the farmers' attention to those additional specialized activities they need to undertake in order to produce good seed crops. The main aim of this chapter is to make sure the enterprise members understand clearly that the purpose of a seed enterprise is to produce good seed, which they can sell and make money.

Once the business concept is understood, Chapter 2 then explains the various factors that need to be taken into account in getting ready to start a seed enterprise. These include personal attributes, choice of business structure, crop and variety considerations, money and resources needed, and analysis of risks.

Chapter 3 uses numerical examples to define and explain the various costs that are usually involved in seed production and how these arise. The production cost is then compared with the expected revenue from seed sales to determine the level of profit.

Chapter 4 focuses on making the business plan and provides examples of key sections of a business plan for a hypothetical seed enterprise. The participants are expected to follow these examples and explanation in formulating their own business plans.

Chapter 5 discusses production planning and activities to be carried out in the field up to the time of harvesting. These include choice of contract growers and land for seed production, use of early generation (foundation) seed, crop husbandry practices, roguing or removal of unwanted plants, field inspection, harvesting and threshing.

Necessary post harvest activities including seed cleaning and treatment, packaging and storage are explained in Chapter 6. These operations transform the seed from the raw to the processed product and prepare it for marketing.

Chapter 7 explains the sampling and testing of all seed lots before they are delivered to customers. The quality results from the seed testing laboratories will serve as guarantee for both the enterprises and the customers.

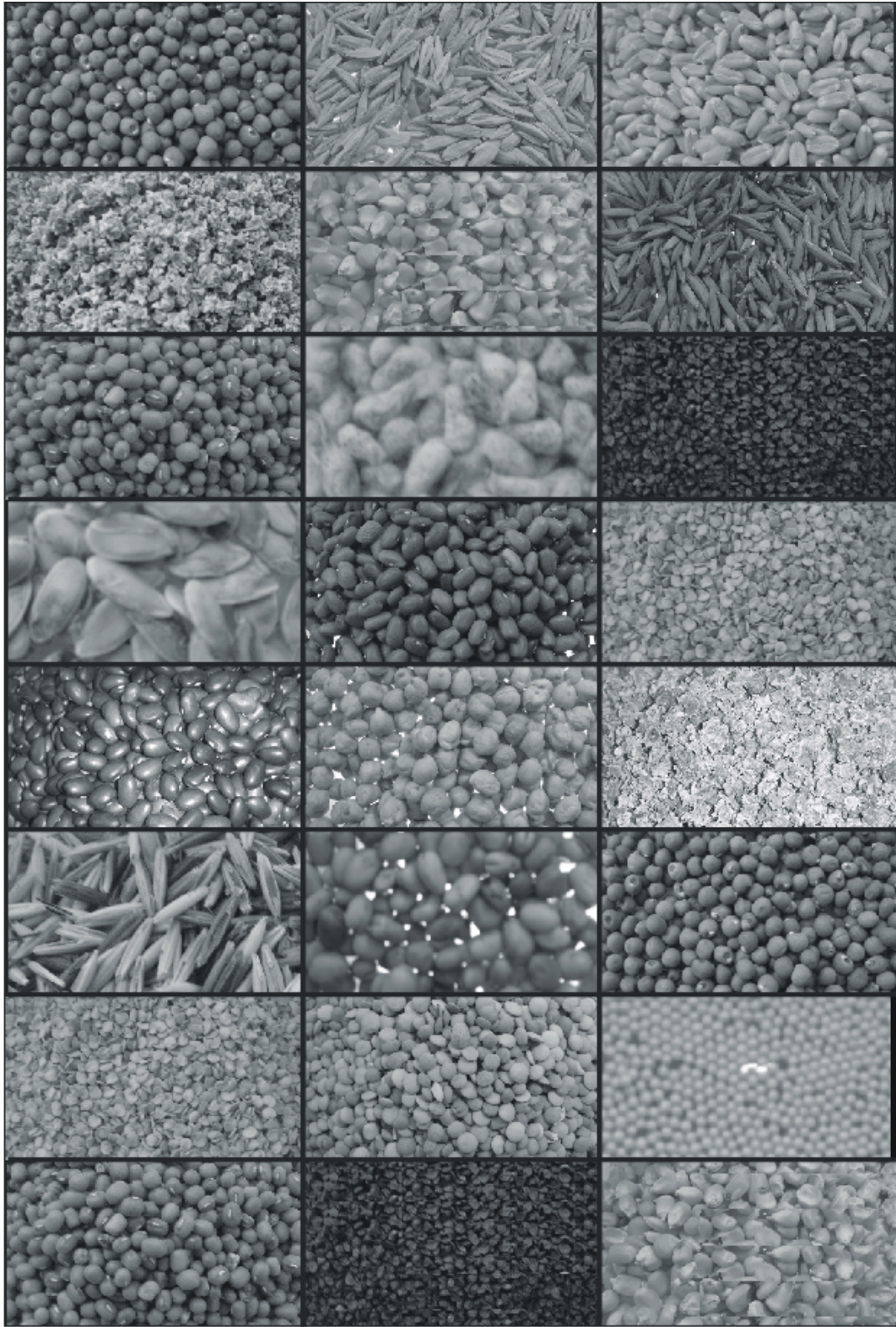
Chapter 8 discusses the various techniques that enterprises should use in promoting their seed to potential buyers. The enterprises should understand that they must sell the seed they produce and be proactive in seeking and influencing the market for their seed.

Chapter 9 outlines all the management issues involved in

running a seed enterprise on a day-to-day basis including internal organization, recording, monitoring and evaluation. Examples are provided of entries that should be made in the various records.

Finally, Chapter 10 discusses aspects related to future growth of the enterprise and challenges to be expected. Methods of business expansion and joining forces to form seed associations are also explained.

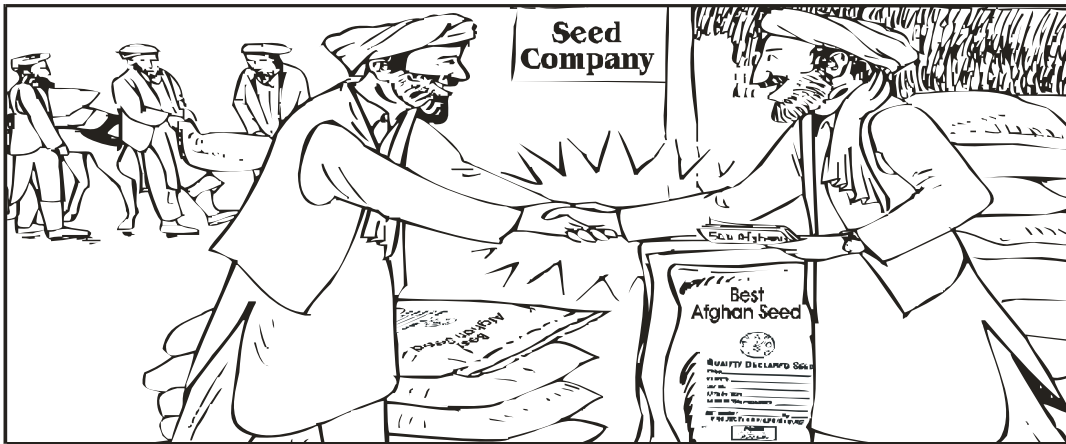
It is hoped that at the end of these ten chapters the participants would have a good understanding of basic seed production techniques and skills they need to run their enterprise successfully and also retain the handbook for reference.



CHAPTER 1

What is a Seed Enterprise?

A seed enterprise is a purely private undertaking for **producing** and **selling** quality seed to farmers. You can only undertake a seed enterprise if there is a prospect of demand for the seed that you wish to sell.



(i) Selecting the crop and varieties to produce

The enterprise should select those crops and varieties that the farmers desire and for which they are willing to buy quality seed and cultivate their farms. Not all crops will make a successful seed business. You should select the crop or combination of crops that will bring the highest economic benefit to the enterprise. Where possible and applicable, select the crops with highest economic value.



(ii) Producing seed in the field

The enterprise must have a means of producing the seed it wishes to sell. It can do so either on its own farm or by making contract agreements with other farmers to produce seed on their farms.



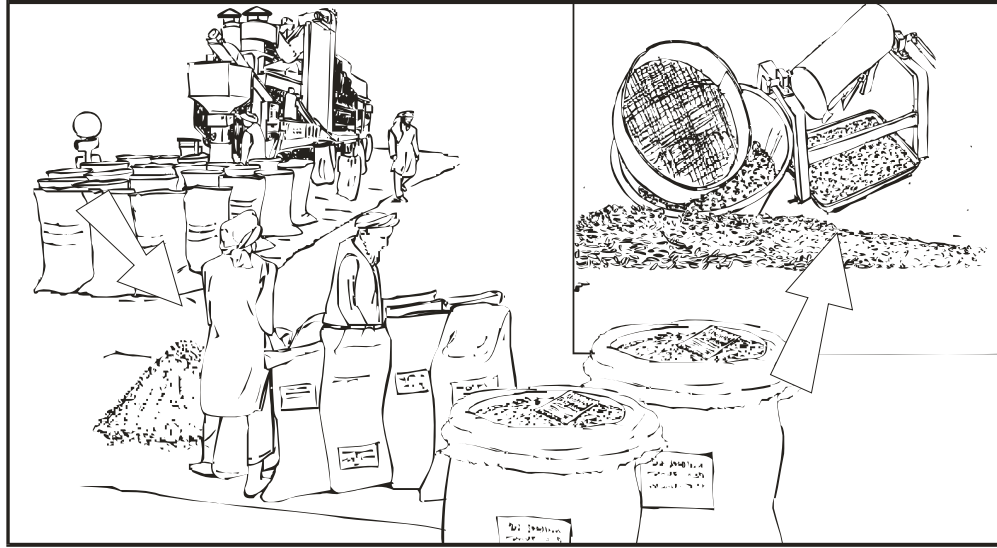
The seed the enterprise produces must meet acceptable quality standards in terms of physical and genetic purity, germination and health status. The enterprise should take good care and pay close attention at sowing time, during the growth stages in the field, at harvesting and

threshing, and during seed cleaning and storage. Seed production follows normal agronomic practices that are required for growing a good crop. However, in addition to these practices, there are some specialized activities needed for growing a crop specifically for the purpose of seed. These include sowing foundation seed, roguing the field to remove off-types, independent official inspection of the field, cleaning and packaging the seed, collecting samples and testing the seed for quality, and promoting the seed to other farmers.



(iii) Cleaning, treating and packaging the seed

Clean your seed to make it physically pure by removing all unwanted materials like seed of other crops, weed seeds, chaff, stones, broken and shriveled grains, etc. As desired, give the seed an appropriate chemical treatment to protect it from pests and diseases. Put the seed in a suitable and attractive packaging material that will preserve its quality status until sowing. Label your bag with relevant information to maintain the identity of that particular lot of seed and to promote its use to farmers.



(iv) Storing the seed

Seed has valuable life and it must be stored properly and preserved under good conditions until it finally reaches the farmer for sowing.



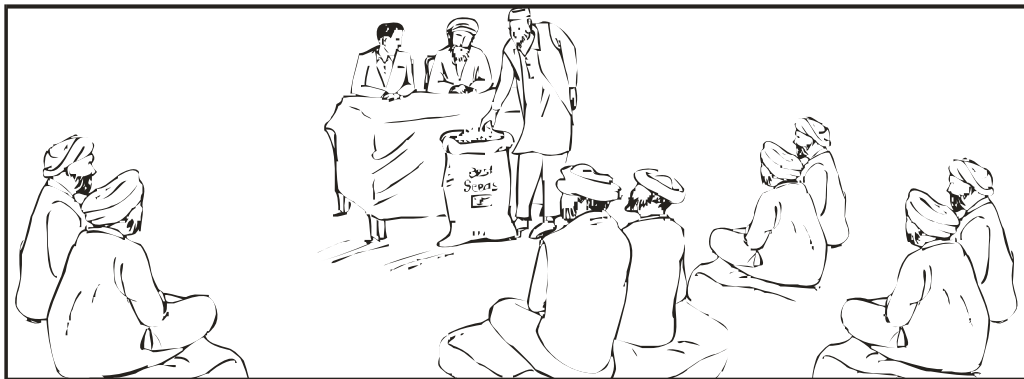
(v) Testing the seed for quality status

You must test the quality of your seed to ensure that the product you sell is clean, without disease, is true-to-type, and will germinate and grow well in the field.



(vi) Marketing your seed to farmers

To succeed in your business, you must sell all the seed you produce and avoid unnecessary carryover of unsold seed from one season to the next. You can only sell your seed if there is demand for it. You should demonstrate the quality attributes of your seed and convince agencies and other farmers to buy it.



Exercises and discussion points

What is a Seed Enterprise?

1. Outline the strengths and weaknesses of different possible seed production methods in your community. Which method do you prefer most and why?
2. Rank important field crops in your community in order of their economic value. What types of inputs and services would you need to produce good seed of the top two crops? Which of the crops that you have identified would you focus on in the beginning and which ones later? Discuss reasons for your answers.

Notes

Notes

CHAPTER 2

Getting ready to start

Starting and managing a successful seed enterprise requires **talent, skill, discipline** and **hard work**. Before deciding to start, you should evaluate your strengths and weaknesses as a potential owner and manager of a seed enterprise.

Ask yourself why you want to start a seed enterprise?



Before you start, you should think carefully and assess the reasons for wanting to go into a seed business. A seed enterprise is possible only if there is a market for quality seed in your area. Apart from making money the following are some other reasons for starting a seed enterprise:

- ☑ To seize a business opportunity by filling a gap in seed supply in the absence of other suppliers.
- ☑ To use your knowledge, experience and resources to run an own business and make money.
- ☑ To expand your existing business by adding seed to it.

What skills do you need to run a seed enterprise?

A seed enterprise can succeed only if the owner or owners have certain essential abilities. As a business owner, you must do the following:

- ☑ **Plan, prepare and organize your business well**

Careful planning, preparation and organization are essential in seed production because if you do not sow good foundation seed to start with and maintain a good crop, you cannot harvest good quality seed later on.



☑ **Time is of the essence in seed production. Be ready to make quick and timely decisions and sometimes under pressure**

Many activities in seed production are critically time-bound and seasonal. You need to manage your time efficiently and follow through on the details of your business at all times. You must remain in total control of your business and must not take any factor for granted that would influence the outcome of your business.



☑ **Maintain strong motivation in hard times**

Seed production carries many risks including unfavorable weather, outbreak of pests and diseases, price fluctuation, etc. Not every season will be a good one and you should be prepared to expect yields and profit to drop in some years. But never lose hope. In the difficult years, you should maintain motivation to minimize constraints with a hope for brighter days ahead.



Have good ability to get along with different personalities

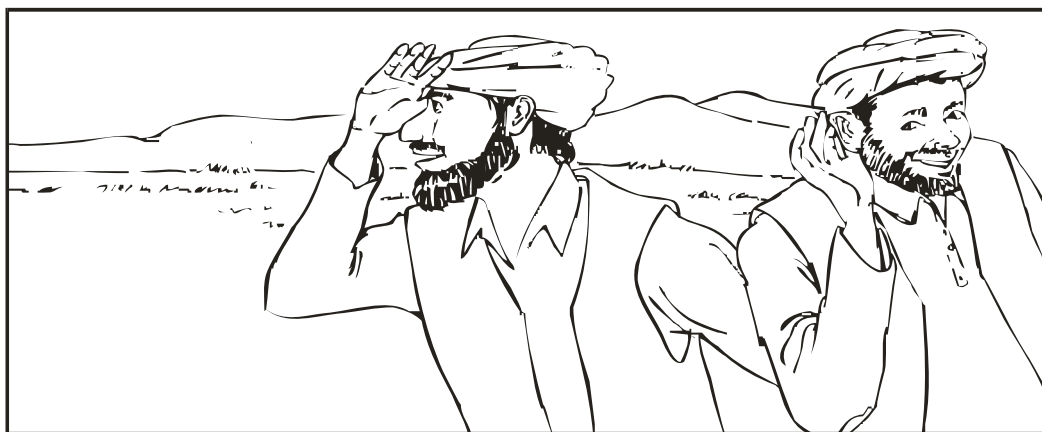
Stick to the principle that “the customer is always right”. Be prepared to maintain good relationship with your customers or others that are associated with your business whether you like some of them or not. Remember that your primary motive is to convince farmers to buy your seed and remain your loyal customers.



☑ **Learn new ideas, be flexible and look ahead**

Technology and the way of doing things change in the seed business. Be open to new ideas and learn about recent developments such as new varieties, changing conditions in the market place and what your competitors or other producers are doing.

Find out about useful meetings, workshops, seminars, trade shows, etc., and make sure you participate in such events.



What structure of enterprise would you prefer?

There are several ways to run a seed enterprise. You can operate it as an individual, as a family enterprise or in partnership with others such as a small group of farmers or as a cooperative. Find out about legal business requirements such as the seed policy, seed law, tax laws, registration and licensing requirements, etc. Your choice of enterprise form may sometimes depend on what is legally convenient or even allowed by law. Whichever form of business you choose will have some advantages and disadvantages including the following:

Owning and operating a seed business alone

Advantages

- You make all your decisions without seeking the permission of others.
- You keep all your income to yourself.
- There are no misunderstandings with other people.

Disadvantages

- You may need the skill of others but discovering this could be costly and time consuming.
- You provide all finances by yourself.
- You bear all risks and provide equipment, inputs, etc.



Running a family seed enterprise

Advantages

- You keep all benefit within the family.
- Family resources could be pooled together easily.
- Greater trust and loyalty can exist between staff from one family and they can stick together in hard times.
- Family members are often very committed to success and make sacrifices because everyone has a stake in the business.
- The thought for future generations encourages long-term thinking about growth and success of the business.

Disadvantages

- Rivalry among family members could jeopardize the business.

- The subject of succession can be sensitive and a source of dispute.
- Personal ties could inhibit the expression of honest opinion.
- One family member could dominate the business.
- Older members could be resistant to new ideas and change.



Joining others in a group

- ☑ **Advantages**
 - Analyzing problems, sharing ideas and planning may be more effective in a group.
 - More people working together could lead to greater output levels and higher revenue.
 - Groups may have better access to credit at lower cost.



☒ **Disadvantages**

- Conflict may arise among group members if they disagree.
- Weak leadership of the group could result in business failure.
- Few key members may tend to dominate decision-making and leave others out.
- Groups may often depend too much on outside financing than on self-generated resources.

Which crops and varieties would you produce?



Not all crops can make a good seed business. The commercial success of your enterprise will be determined by the demand and profitability of the crops that you grow. Therefore, the choice of crops and varieties that you select will depend on the preferences and needs of the farmers that would buy your seed. These factors have to be assessed carefully through some form of survey or market research.

Seed enterprises hardly depend on one crop. A combination of crops is usually necessary. These should preferably be crops that the farmers can grow in rotation on the same piece of land. However, since each crop would require specific expertise, inputs or machinery, it is advisable that small businesses do not grow many crops at the same time. They should focus on 2 or maximum 3 crops. The same

applies to the number of varieties of a crop that an enterprise would handle because it is difficult to maintain varietal identity and purity when many varieties of the same crop are grown.

Although crops such as wheat and rice may be important in the farming system, enterprises often find it difficult to sell seeds of these crops because farmers can normally produce their own seed and are reluctant to buy more expensive seed from other sources. It would be better to combine such crops with more profitable alternatives like certain vegetables that require specialized seed production techniques.

Although handling more than one crop requires more work, it has the advantage of spreading the risks of failure due to adverse weather conditions, pests and diseases, price fall, etc. Another crop also brings in additional income later in the year and helps in fully utilizing your labour and other facilities the year round.

How would you decide on the scale of your business?



The scale of your business should be determined primarily by the size of the market you intend to serve and how you expect the enterprise to grow over time. The capacity you acquire in terms of staff, machinery, processing facility, storage and transport should correspond to the quantity or

value of seed you will produce. Excess and underutilized capacity will be a loss for your business and should be avoided.

What market niche would you wish to target?

Marketing is the most critical factor that determines the success of your seed business. In order to compete with other suppliers in the industry, you must know and understand your market, how it is changing and the challenges that may lie ahead.

The market for your seed is determined by the existing demand for it. If there are no farmers wanting to buy your seed, then there is no possibility of a seed business. Your market may be limited to your village, district or even your province. You must be aware of the internal and external market forces that could affect the current and future market for the seed you hope to sell. Keep in mind that marketing is a dynamic process and you should always keep your eyes and mind open and remain alert to the current and likely future needs of your farmers.

As a small enterprise, you should explore the possibility of selling quality seed of particular crops and varieties that are attractive to a specific group of prospective seed buyers. This will require a careful study of the market (farmer behaviour and pattern of seed and variety use) to find opportunities. For example, farmers in a certain location may be growing traditional long-duration varieties of a certain crop and may become attracted to shorter-duration varieties because they could harvest these in time to sow another crop and therefore benefit from double cropping. Similarly, some farmers may be looking for disease-tolerant varieties to replace their current susceptible varieties. All instances of this kind may offer unique opportunities for small seed enterprises and specific markets for them to aim at.

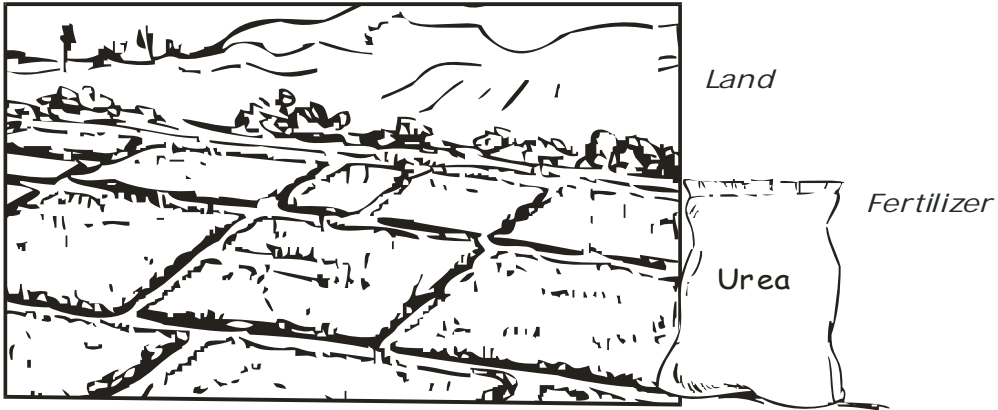
Once you identify your market niche, try to answer questions such as the following:

- Seed of which crops and varieties would you like to produce and sell?
- Would you be able to deliver better quality seed and service than other existing suppliers?
- Would your seed fill a need in the farming community?
- What packaging material and sizes (kg) would you use?
- What kind of competition would you expect and what comparative advantage do you have over other suppliers which would enable you to cope with such competition?
- Would you be able to create more demand for your seed and expand your business?

How much money will you need for your enterprise?

The amount of money you need will depend largely on the kind of equipment, facilities and materials needed for the enterprise. You must be able to estimate the costs of these items.

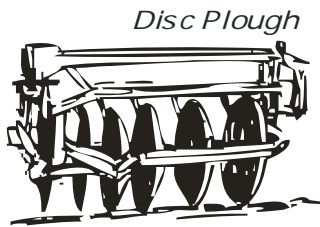
Producing quality seed requires inputs and specialized equipment and facilities in addition to those that are used in normal grain production. You should identify which of these you will use and find out how much they will cost and how you will raise money to buy them. Amongst the items a small seed enterprise would require include the following:



9 Furrow Plough



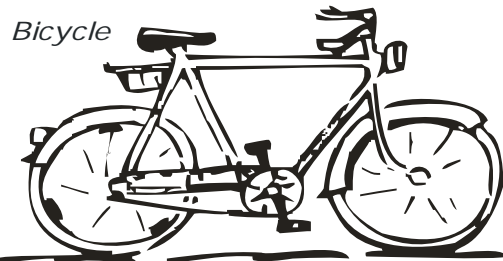
Tractor



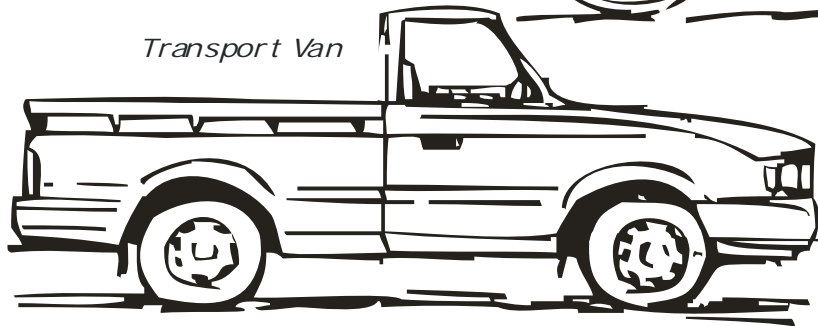
Disc Plough



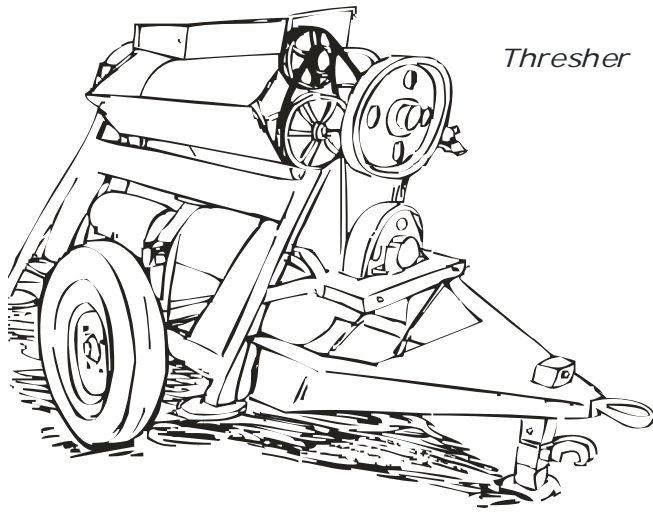
Telephone



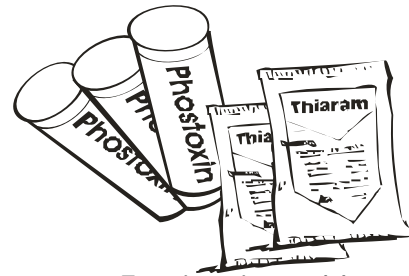
Bicycle



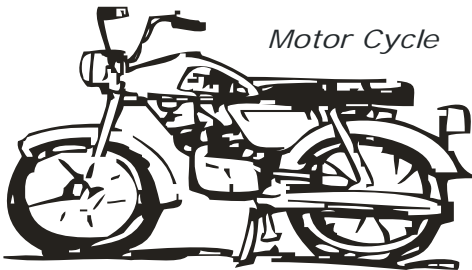
Transport Van



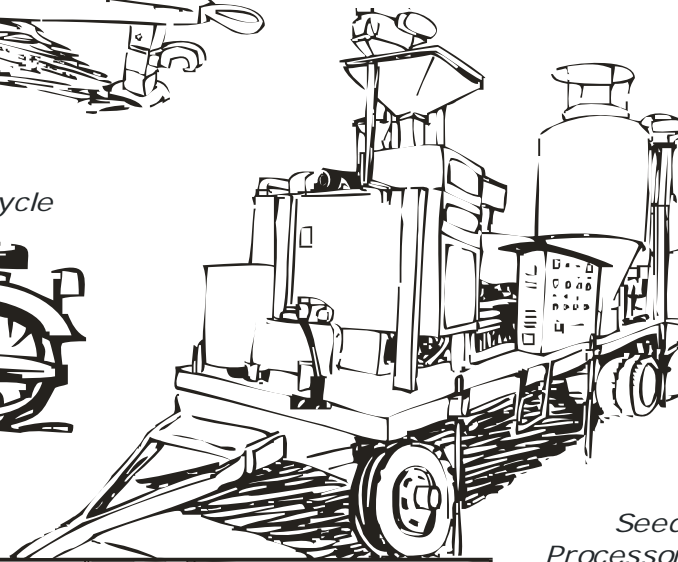
Thresher



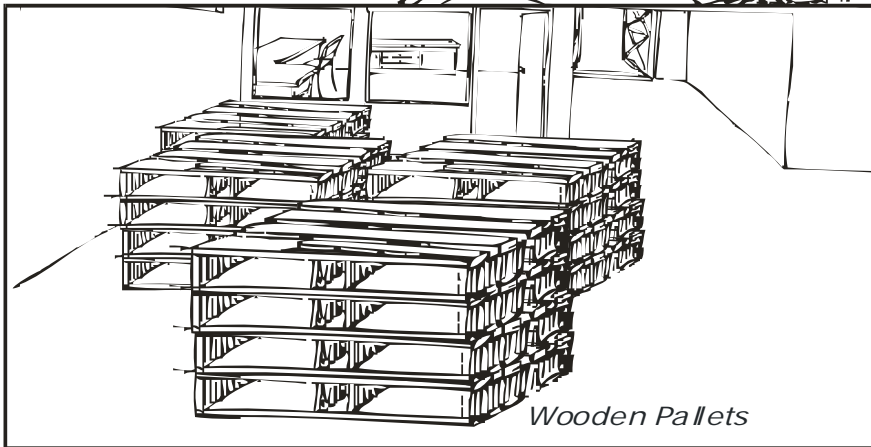
*Fumigation tablets
and seed treatment*



Motor Cycle



*Seed
Processor*



Wooden Pallets

*Storage
Facility*

How will you obtain the required funds?

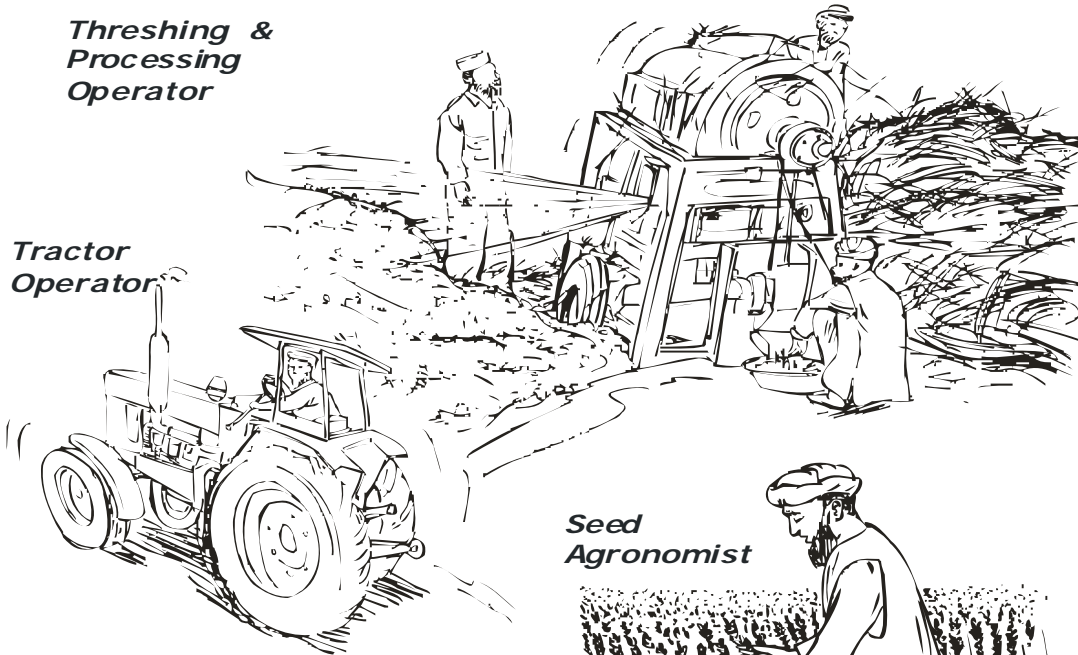
You should assess whether you would be able to fund the enterprise from your own source or need support or credit from an agency, or loan from a financial institution such as a bank. If you choose to take a loan, you must determine whether your enterprise will make enough money to repay the loan and service charges while leaving you with some reasonable profit to share with members of the enterprise or invest further in your business.



How would your enterprise be managed and controlled?

To run a seed enterprise successfully, you will need persons with specialized skills and expertise. If you will run the enterprise on your own, you may need to seek the services of others having skills and expertise that you do not possess. In a group, these functions could be carried out by specific members within the group. Amongst such key functions would include the following:

Threshing & Processing Operator



Tractor Operator

Seed Agronomist



Sales and Marketing Expert

Accountant/Storekeeper



Having people with the right skills and technical knowledge is not a guarantee that everything will go well. Every group enterprise should be guided by agreed rules and regulations that are thoroughly understood by all members of the group. Penalties for non-obliging members should also be specified. In fact, in some countries, formal by-laws or constitutions may be legally required as part of the registration process of small private enterprises.

What risks would your enterprise likely face?

Risk is any factor that may cause problems or loss to your seed enterprise. You must think of all the possible risks or things that may go wrong and be prepared to minimize the possible damage these may cause to your enterprise in the event that they happen.

The following are examples of risks seed enterprises may face:

- Technical or production risk (e.g. Breakdown of equipment, fall in quality of seed in storage, etc.)
- Financial risk (e.g., limited money to purchase needed equipment and materials, or to pay salaries and wages)
- Marketing risk (e.g., fall in market share due to increasing competition, importation of cheaper alternatives from other countries)
- Management risk (e.g., dominating effects of few key people in a small-scale seed enterprise).

These different types of risk and their likely impacts must be carefully assessed before starting your enterprise and

Corrective measures anticipated.

What other important pre-conditions should you consider?

There are still other factors you should take into account before becoming finally sure you are ready to start your seed enterprise.

- What will you name your enterprise?

It is important for you to give an attractive name to your enterprise; a name that your customers can remember and call easily.

- What logo and slogan will you use for the enterprise?

The name, logo and slogan should go hand-in-hand. The logo should be simple and cheap to print on paper, bags, etc.

- Where will your enterprise be located?

You should locate your enterprise within easy reach of your farmers and suitable for promotional purposes.

- How will you compensate yourself or members of the group?

Your answers to the above will help you in developing a comprehensive business plan, which will be your next task once you become convinced that you are ready to start your seed enterprise. The business plan should be well-thought out, since it will guide your business operations, its management and capital needs.

Exercises and discussion points

1. Which two crops in your area will require critical management of time for seed production when they are grown one after another? What steps would you take in order to be most time efficient and productive in growing these crops?
2. What business structure is most suitable for seed production in your community and why? What are the strengths of this structure? Which limitations would this structure have and how would you overcome these?
3. What are the most important sources of funds available in your community for starting a new seed enterprise? Are these sufficient? If not, where else would you go to seek additional funds? What would you need to convince your borrower to give you the money you want?

Notes

CHAPTER 3

Understanding costs and benefits in seed production

Why is it important to know your costs?

Knowing your costs, setting the right price for your seed and estimating potential profit level are the basic elements of any business. It is only when you know your total cost that you can decide on a reasonable price for the seed you sell.

It is important to remember that before you start the enterprise, you should have sufficient money to pay for all the items you need and the running costs during the year. Note that your first income will only come when you have harvested and sold your first seed crop. This means that you must have money to start with. A part of this money may come from your own source or it may come as a loan. If you take a loan, you should think carefully whether you will be able to repay the loan plus any service charges and still make a reasonable profit. All this will require careful estimation of the scale of your business, all the costs you expect to incur, your expected income or benefits, and expected level of profit.

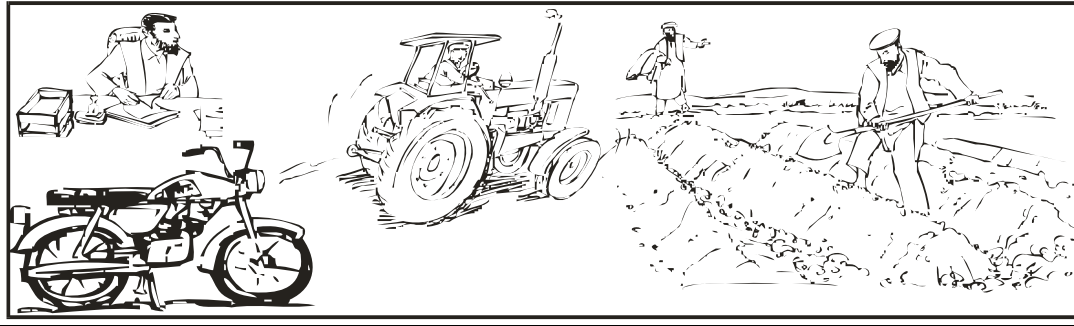
In calculating your costs, you should not ignore or underestimate any elements that contribute to the costs of your business such as the labour and time you or other members of the group or family will contribute to the business. Your enterprise could run into difficulty if you overestimate your profit because you have not taken certain elements of costs into account.

What are the main types of costs a seed enterprise incurs?

There are 2 main categories of costs small enterprises incur:

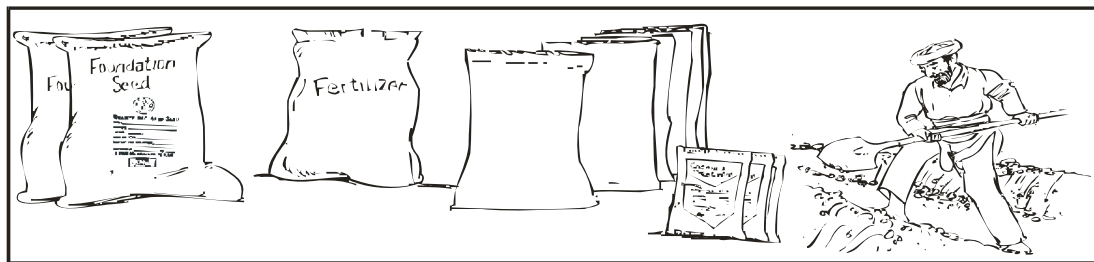
(i) *Fixed Costs*

These costs remain the same and do not change with the amount of seed you produce. These include salaries of the workers, rent of property, cost of machinery and equipment.



(ii) *Variable Costs*

These costs will tend to increase or decrease with changes in the quantity of seed you produce. Examples include the amounts of foundation seed, fertilizer, labour input, packaging and seed treatment material you use.



To be efficient, you must operate at optimum capacity by producing and selling as much seed as possible. You will become more cost effective if you spread your fixed costs over as large a seed volume as possible.

Why is it important to estimate the potential profitability of your enterprise?

You cannot start a seed enterprise if you are not sure that you will generate a profit. To make profit, your expected income from seed sales must exceed the total amount of money you will spend in producing the seed. Before you start your seed enterprise, you must assess whether you will be able to make sufficient profit. This means that you have to estimate in advance your total cost and total expected income, and hence your margin or profit.

How do you estimate the potential profitability of your enterprise?

Let us assume that your enterprise will produce a wheat crop, which will be followed by a rice crop in the same year and on the same piece of land. The following examples show 5 steps you should follow in estimating your total costs, the revenue you will make and the potential profit you would expect.

Step 1: Calculating the depreciation of your fixed assets

An asset is anything of value that is owned by your business. Fixed assets are long-term items acquired for the day-to-day operations of the enterprise and which you do not expect to convert into cash within a short period of time; for example, machinery and equipment, buildings and furniture. You must therefore be in a position to replace such assets at the end of their useful life if you are to continue your business. It is mainly for this purpose that you need to calculate the depreciation cost.

In calculating depreciation, you want to spread the costs of your capital items over their expected economic lives. The depreciation cost will represent the amount of money you

should set aside each year to account for the loss in value of the fixed assets with the passage of time. You should use this money in addition to the end or salvage value of the asset to replace the asset in question at the end of its economic life. The following formula is used in calculating depreciation:

$$D = \frac{(P-SV)}{Y}$$

Where D= annual depreciation in \$ per year, P= purchase price in \$, SV= salvage value in \$, and Y= years of service or economic life.

Consider the following examples of fixed assets for which annual depreciation is calculated, given the purchase values, expected economic life and estimated salvage or end values:

Item	Purchase cost (US\$)	Economic life (years)	Salvage value (US\$)	Annual depreciation (US\$)
Tractor	10300	10	5000	530
Accessories for tractor	2500	10	1000	150
Air compressor for tractor	380	10	100	30
Implements for tractor	2390	10	1000	90
Thresher	200	10	500	150
Seed drill	500	10	100	40
Harvester (windrower)	1700	10	500	120
Seed cleaner	80000	20	10000	3500
Ridging and ditch machine	240	15	100	10
Transport van	10000	10	5000	500
Motor cycle	600	5	200	80
Store	40000	50	5000	700
Furniture and fixtures	300	10	50	25
Total annual depreciation				5895

Step 2: Calculating administrative costs

There are some indirect costs in seed production such as administrative charges, materials-related costs (machinery repairs and maintenance, electricity, insurance, rent), and some categories of labor cost (supervision and store keeping) which are clearly costs for producing the seed but which are difficult to associate directly with a unit of seed

produced or area cultivated. For practical reasons, these are usually classified as indirect materials costs and indirect labor costs, and are grouped together as the administrative cost or production overhead cost. The following example outlines administrative costs in a small-scale seed enterprise.

Item	Value in (US\$)	Item	Value in (US\$)
Office supplies	500	Wages for office labor	1000
Salary for cashier/accountant	800	Vehicle operation cost	2000
Salary for tractor driver/operator	800	Promotion and marketing cost	500
Sub-total administration charges			5600

Step 3: Calculating how much it costs to grow wheat seed (per jerib and hectare)

Apart from depreciation and administrative (overhead) charges, are direct costs associated with cultivating one jerib (0.2 ha) and one hectare of land. The following example outlines the production costs, first for wheat and then for rice. In the example, the rice crop is grown after the wheat crop on the same piece of land, as is practiced in some parts of Afghanistan.

Item	Unit	Qty	Unit cost (Afs)	Unit cost (US\$)	Total (\$/J)	Total (\$/ha)
Disc plowing (fuel and lubricants, casual labor, etc)	J	1	200	4.14	4.14	20.70
Cultivator harrowing (fuel, casual labor, etc)	J	1	200	4.14	4.14	20.70
Foundation seed	Seer	5	80	1.66	8.28	41.41
DAP fertilizer	Bag	0.5	900	18.63	9.32	46.58
Urea fertilizer (labor)	Bag	1	450	9.32	9.32	46.58
Fertilizer application, bird control, security, etc	J	1	500	10.35	10.35	51.76
Weed control: cost of herbicide & application	J	1	200	4.14	4.14	20.70
Roguing	J	1	100	2.07	2.07	10.35
Harvesting: fuel and lubricants, casual labor, etc	J	1	200	4.14	4.14	20.70
Threshing: fuel and lubricants, casual labor, etc	J	1	200	4.14	4.14	20.70
Transportation (fuel, casual labor)	J	1	100	2.07	2.07	10.35
Seed cleaning	J	1	150	3.11	3.11	15.53
Seed treatment: Thiram powder	J	1	50	1.04	1.04	5.18
Cost of bags	J	1	100	2.07	2.07	10.35
Storage (fumigation, inspection, etc)	J	1	100	2.07	2.07	10.35
Contingencies	J	1	100	2.07	2.07	10.35
Total cost	J	1	J		72.46	362.32

Note that 1 seer = kg of seed.
US \$1=48.3 Afs.

Step 4: Calculating how much it costs to grow rice seed (per jerib and hectare)

Item	Unit	Qty	Unit cost (Afs)	Unit cost (US\$)	Total (\$/jerib)	Total (\$/hectare)
Nursery preparation	J	1	50	1.04	1.04	5.18
Foundation seed	Seer	2.5	100	2.07	5.18	25.88
Disc ploughing, leveling and ridging	J	1	600	12.42	12.42	62.11
Uprooting seedling & carrying to planting site	J	1	400	8.28	8.28	41.41
DAP fertilizer	Bag	0.5	900	18.63	9.32	46.58
Urea fertilizer	Bag	1	450	9.32	9.32	46.58
Crop management (irrigation, fertilization, etc)	J	1	1000	20.70	20.70	103.52
Weed control by hand	J	1	300	6.21	6.21	31.06
Roguing	J	1	100	2.07	2.07	10.35
Harvesting (fuel, maintenance and labor)	J	1	200	4.14	4.14	20.70
Threshing (fuel and casual labor)	J	1	200	4.14	4.14	20.70
Transport (fuel, maintenance and labor)	J	1	100	2.07	2.07	10.35
Seed cleaning	J	1	150	3.11	3.11	15.53
Seed treatment: vitavax 5	Pack	1	50	1.04	1.04	5.18
Cost of bags	J	1	120	2.48	2.48	12.42
Storage (fumigation, inspection ,etc)	J	1	100	2.07	2.07	10.35
Contingencies	J	1	100	2.07	2.07	10.35
Total cost			J	1	95.65	478.26

Step 5: Calculating the profit margin for growing wheat and rice seed on 100 jeribs or 20 hectares of land

In this final step, you add up all the costs involved in producing both wheat and rice seed on 100 jeribs of land in one year (i.e., depreciation costs + administrative charges + wheat seed multiplication costs + rice seed multiplication costs). To estimate your profit, you should compare your total cost with the total income you expect from your seed sales. This means that you have to estimate the yield you expect from both crops and the price at which you expect to sell your seed to the farmers or organizations.

To make a reliable estimate of yield, you must use your experience in past years as a basis, and then taking into account certain factors and prevailing conditions in the current year such as rainfall pattern, pests and disease infestation, temperature range, etc. As regards selling price, your forecast level will depend on production costs, price levels in past years, expected grain prices, prices charged by other

suppliers, the margin you wish to get, etc. Therefore, your selling price = (Total production cost + margin). Your net margin may be subject to a certain tax rate depending on the policy of the government.

Item	Value in (US\$)	Item	Value in (US\$)
Annual depreciation charges (fixed costs)		Administration charges (Fixed costs)	
Tractor	530	Office supplies	500
Accessories for tractor	150	Salary for cashier / accountant	800
Air compressor for tractor	30	Salary for tractor driver / operator	800
Implements for tractor	90	Wages for office labor	1000
Thresher	150	Van operation	2000
Seed drill	40	Promotion and marketing	500
Harvesting machine	120	Sub-total administration charges	5600
Seed cleaner	3500	Total fixed cost	11495
Ridging and ditch making machine	10		
Transport van	500		
Motor cycle	80		
Store	700	Seed multiplication costs: wheat (20 he)	7246
Furniture and fixtures	25	Seed multiplication costs: rice (20 he)	9565
Sub-total depreciation charges	5895	Sub total seed multiplication cost	16811
Total production cost	28306		
Value of processed wheat seed from 20 ha: (10,500 seers @ Afs 80/seer or US\$ 1.66/seer)			17430
Value of processed rice seed from 20 ha: (14,300 seers @ Afs 100/seer or US\$ 2,07/seer)			29601
Total value of output (processed wheat and rice seed)			47031
Net margin (US\$)			18725
Net margin (%)			66.2%

If your enterprise contracts other farmers as growers to produce seed, then all field multiplication costs will rest with the growers. In such a case, your basic production cost will be the farmgate price you will pay for raw or non-cleaned seed you buy from the growers. This procurement price would normally amount to the prevailing market price for ordinary grain plus an agreed premium (e.g. 15%) above the grain price. Your enterprise would have to take care of seed processing costs including transportation. Under these circumstances, your selling price will be based on the raw seed procurement cost, the depreciation charges of your fixed assets, the administrative charges, the processing cost, and the margin you expect to get.

An enterprise which contracts farmers for seed production must be in a position to have enough cash on hand at harvest time in order to buy raw seed readily from the growers. This volume of cash will be the greatest cost of the business and must be available at the right time.

Item	Value in (US\$)	Item	Value in (US\$)
Annual depreciation charges (fixed costs)		Administration charges (fixed costs)	
Tractor	530	Office supplies	500
Accessories for tractor	150	Salary for cashier / accountant	800
Air compressor for tractor	30	Salary for tractor driver / operator	800
Implements for tractor	90	Wages for office labor	1000
Thresher	150	Van operation	2000
Seed drill	40	Promotion and marketing	500
Harvesting machine	120	Sub-total administration charges	5600
Seed cleaner	3500	Total fixed cost	11495
Ridging and ditch making machine	10		
Transport van	500	Buying 12,000 seer raw wheat Seed @ Afs 30 (\$0.65) from growers	7500
Motor cycle	80	Buying 16,000 seer raw rice seed @ Afs 35 (\$0.70) from growers	11667
Store	700	Processing 12,000 seer (84 tons) wheat seed @ \$3.7 per ton	311
Furniture and fixtures	25	Processing 16,000 seer (112 tons) wheat seed @ \$2.8 per ton	314
		Seed treatment, bags and storage costs for 84 tons wheat seed	482
		Seed treatment, bags and storage costs 112 tons rice seed	516
Sub-total depreciation charges	5895	Sub total raw seed procurement and post-harvest handling cost	20790
Total production cost			32285
Value of processed wheat seed from 20 ha: (10,500 seers @ Afs 80/seer or US\$ 1.66/seer)			17430
Value of processed rice seed from 20 ha: (14,300 seers @ Afs 100/seer or US\$ 2.07/seer)			29601
Total value of output (processed wheat and rice seed)			47031
Net margin (US\$)			14746
Net margin (%)			45.7%

Exercises and discussion points

1. Why do you think it is important to spread fixed costs over as much seed as possible? What should you do to keep your fixed costs at the lowest level possible?
2. Suppose you buy a new tractor at \$10,000 and a van at \$15,000 and both are to last 10 years, at the end of which you intend to sell them at \$1,000 and \$1,500 respectively. Calculate the total annual depreciation of these assets. Under which conditions do you think it would be difficult to buy a new replacement tractor and van using the accumulated depreciation and salvage values at the end of 10 years?
3. If the total production cost of an enterprise is \$50,000 and the total revenue from seed sales is \$75,000, calculate the net percentage margin of the enterprise.
4. What rate of tax do you think small-scale seed enterprises should pay to the government and why?

CHAPTER 4

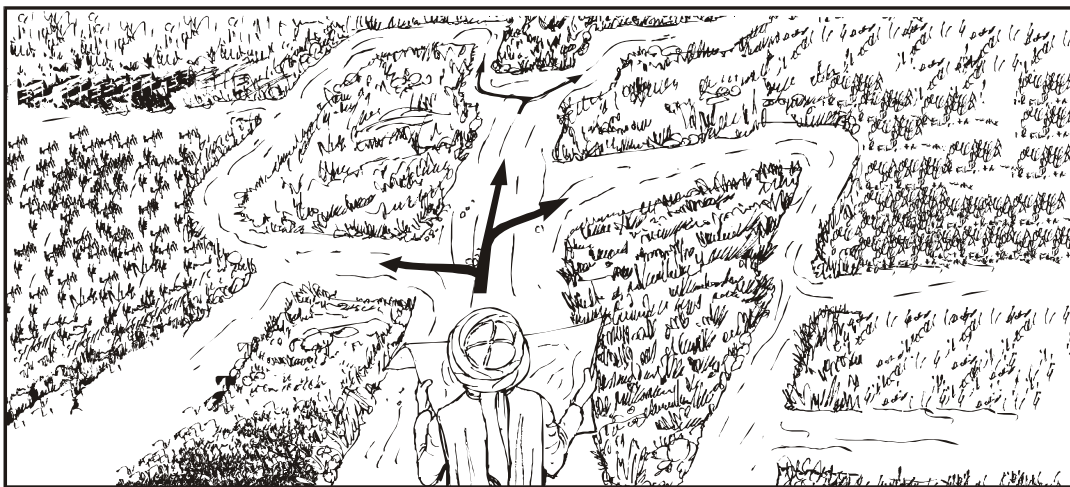
Making your business plan

A business plan is an absolute necessity for any seed enterprise. A good business plan is the most important step in starting a successful enterprise. Therefore, any person or group that wants to start a small seed enterprise must be able to prepare a business plan before starting the enterprise.

What is a business plan?

It is a comprehensive document which describes clearly the commercial goals or objectives of the enterprise and outlines the following:

- WHAT resources (human, financial, etc.) will be needed to achieve the commercial objectives of the business?
- WHERE will these resources come from?
- HOW will these resources be utilized?



The business plan is a **road map** to success. It shows you the direction to follow, which may not always be a straight road. This means that as you move along, you have to check periodically whether you are in the right direction or not. You don't wait until you get lost. If you are moving in the wrong direction, take corrective action quickly to get back on the right track

Why do you need a Business Plan?

As an entrepreneur, you need a business plan for the following reasons:

- i. To show the cash flow you expect or how much money you expect to spend on the business in comparison with how much you will bring into the business during a given period of time.
- ii. To show which operations you will undertake and how much money you will spend on such operations.
- iii. To show funding or credit agencies how much your enterprise is worth and how well it will do in the future.
- iv. To assess the chance of the enterprise and make necessary correction before starting the business so as to increase you possibility of success.
- v. To minimize risks by preparing a plan that will guide the operation of you enterprise and serve as continuous reference.
- vi. To promote and market your enterprise
- vii. To show how you will achieve your business goals and objectives.

What should your business plan contain?

Your plan should be simple, but it should detail the resources you will use, where these will come from, and how you will operate and manage the enterprise. The following is a simplified outline of the major components of a business plan:

Cover page

- 1. Introduction**
- 2. Operating plan**
- 3. Financial plan**
- 4. Marketing plan**
- 5. Management plan**
- 6. Conclusions**

Preparing a simple Business plan for your seed enterprise

To prepare a good business plan, you should think how answer the following questions carefully:

COVER PAGE

Your cover page should provide essential information:

- What is the name of your group enterprise?
- What is the contact address of the enterprise?
- What are your telephone numbers and e-mail address?
- What is the logo of the enterprise? (This should be simple)
- What is your business slogan? (This should be short, attractive and to the point)
- When was the business plan prepared? (month and year)

Sample Cover Page:

Business Plan

BEST AFGHAN SEEDS

**Number 1 Muslim Street, Pulikhumri,
Baghlan Province, Afghanistan**

Tel: +93 799 315390

E-mail: baseeds@yahoo.com



You Harvest What You Sow

July 2007

1. INTRODUCTION

In preparing your introduction you should attempt to answer the following questions:

- What is the name of the enterprise? What is the structure and ownership of the business and total number of members? What is the objective of the group coming together to form the enterprise or start the business? What does the group expect to achieve by coming together?
- Why do you select to go into a seed business? For example, is it based on your long involvement in seed production or on skills and experience the members would bring to the business (specify these), or on potential market demand? What are the advantages your enterprise may have over competing ones? Is there any other special reason for selecting the seed business?
- What type of crops varieties and seed will your group enterprise produce and sell, and what is the potential market or groups of farmers that will buy it? What will be the possible advantages of your varieties/seed? (higher yield, shorter duration, disease tolerant, cheaper, better quality, etc.)
- What are your perspectives about the profitability, future growth and success of your group enterprise?

Sample Introduction:

Best Afghan Seeds (BAS) is a pilot seed enterprise that will be established with the technical assistance of FAO of the United Nations as part of its Seed Industry Commercialization Programme. Ten leading farmers with long years of seed production experience as contract growers will pool their resources together including land and money to establish the enterprise.

BAS Seed Enterprise will rely on the proven knowledge, skills and experience of its Leader, Mr. Abdul Rasheed, who brings over a decade of seed company managerial experience to the enterprise. Assisting Mr. Rasheed will be Mr. Mohammad Naweed, who has considerable technical experience in seed production and can meet the high quality standards that BAS Enterprise has set for its seed.

BAS Seed Enterprise will be created for the primary purpose of providing high quality seed of the best wheat and rice varieties to farmers in the northern and northeastern regions of Afghanistan, which are considered the bread basket of the country. The enterprise has a potential to gain reputation for offering quality wheat seed that provides great value to farmers in irrigated land. It will take advantage of the growing demand for quality seed of new wheat and rice varieties with outstanding flour and cooking qualities respectively.

BAS Seed Enterprise will establish its base of operations at Pulikhumri, the capital of Baghlan Province, which has amongst the largest area of irrigated land in the country and the fastest growing market for improved seed of wheat and rice. Other existing suppliers in Baghlan province produce seed of either traditional varieties, or old improved varieties that no longer perform well. BAS enterprise will therefore be in a good position to capture a significant portion of the local market for wheat and rice seed, since it will introduce new and better performing varieties.

BAS Seed Enterprise will differentiate itself from other suppliers through lower pricing and unique promotional techniques. By specializing in just a few of the most popular varieties, BAS Seed Enterprise will gain access to the largest segment of a growing seed market for wheat and rice. This tightly focused approach will also make it easier for BAS Seed Enterprise to establish and attain the position of a seed industry leader. This enterprise is projected to return a profit margin of 46% in its very first year of operations, due in a large part to the size of the market, a competitive price for seed, and the relatively low investment required to begin operations. The first year (2007) sales revenue is projected to exceed \$47, 000. The profit that is generated will be used for reinvestment in the enterprise.

2. OPERATING PLAN

Your Operating plan should explain how the enterprise will function on a day-to-day basis.

- How will you obtain land for your enterprise to establish offices and stores, and to produce different types of seed requiring different agro – ecological conditions?
- Which equipment, facilities and materials will you need and what is the estimate of their costs? Why would you need these specific types of equipment or facilities?

- What production inputs will be required and how much will these cost?
- What will be the production and delivery process of your seed from the initial to final stages?
- How much time will be required for the production and delivery process until the seed finally reaches farmers for planting?
- What expertise and skills will be needed for the production and delivery processes and how will these be obtained?

Sample Operating Plan:

Based on a survey of farmers in North and Northeastern Afghanistan, it has been determined that the current total annual requirement for wheat seed is about 125,000 tonnes and 10,000 tonnes for rice seed. Most farmers use older varieties and use their own farm-saved seed. This own seed is of poor quality and the varieties are mixed. There is therefore a persistent high demand for quality seed of new varieties, for which the farmers are prepared to pay higher prices.

BAS plans to enter the market and sell a total of 10,500 seers and 14,300 seers (1 seer = 7 kg seed) of certified seed respectively of new wheat and rice varieties in the first two seasons of operation (20 months starting October in year1) and increasing this gradually to a combined total of about 50,000 seers by the fifth year. For this, the owners will contribute some land each and the enterprise will also sign contract with growers and produce most of the seed on their own lands. The enterprise will need initial capital to construct a store with sufficient office space, and buy furniture, a seed cleaning plant, a transport van, three motor cycles, ten bicycles, two computers and one printer, and five mobile telephones. In addition, the business will require sufficient working capital to buy necessary inputs (foundation seed, fertilizer, herbicides, packaging material and seed treatment chemical), to purchase raw seed from contract growers, to undertake post-harvest operations and to meet other day-to-day expenses. The owners will contribute 20% of the funds required, and the enterprise will need to raise a long-term bank loan for the rest of the amount required at 15% service charge.

In the first year, BAS enterprise will select key farmers who are already knowledgeable in seed production to grow foundation seed of new irrigated wheat varieties on contract. One of the enterprise members is an experienced agronomist who will closely supervise the field operations and

coordinate raw seed purchases at harvest time. The owner of BAS has long-term relationships with the area's best farmers and is confident that each will provide quality service.

An intensive training programme will be organized for all selected growers prior to their involvement in the programme. A vigorous campaign will also be mounted to promote the quality of BAS seed in the farming communities so as to capture a good proportion of the seed market and maintain a core of loyal clients.

BAS Enterprise will carry out the following key operations:

- Purchasing raw certified seed from its contract growers*
- Cleaning, packaging, treatment and storage of the seed*
- Seed distribution, marketing and sales*

The various components of each operation and the estimated costs are outlined in the financial plan.

3. FINANCIAL PLAN

Your Financial Plan should discuss the finances you will need and expect. As a part of your overall financial plan, are costs, sales and profit plans, which should show, estimate or discuss the following:

Costs element

- What will be the total cost of the enterprise or the amount of initial finance you will require to start the enterprise and operate it for one year (investment needs)?
 - Land and buildings.
 - Machinery and equipment.
 - Inputs (foundation seed, fertilizer, etc)
 - Materials and supplies (packaging, seed treatment, etc.)
 - Administrative costs.
- Where will you obtain this money?
 - Own investment (how much of your own resources will be put into the enterprise at this stage?)

- Group investment (How much will come from the members' contribution?)
- Loan (If you are going to look for a loan, how much money will you be looking for and what collateral security you will be able to offer for the loan?)
- Grant (What will be the possible sources of grant?)
- Any other sources of funds
- What will be the fixed and working capital (variable cost) requirements of your enterprise?
- What will be the projection of costs of your business?

Sales element

- What will be the forecast of total sales (benefit) of your enterprise?

Profit element

- What will be the projection of profitability (size of profits) of your enterprise?

Financial statements

How do you summarize and present the potential performance of your enterprise?

Having estimated the costs, revenue and profit level in Chapter 3, you should be able to present these measures in a summarized form that gives a snapshot of the success of your enterprise. The following are three ways of doing this:

i) Preparing an operating cash flow

An operating cash flow plan (detail by month for year 1 or season)

- On the basis of your operating plan, how much cash will you expect to come into and go out of your enterprise each month?
- How will you ensure that your enterprise does not run

short of cash at any time? Your cash balance in any one month must not be negative.

- ii) Preparing a projected profit and loss statement for your enterprise.

You should show the potential profitability of your enterprise and provide a projected profit and loss statement for Year 1. The profit and loss statement will show what profit or loss you expect to make at the end of the cropping season. This statement will summarize expenses (or costs) of your enterprise and the revenue obtained during the year to give two totals A and B as follows:

Total A = (opening value of seed stock + expenses during the year)

Total B = (closing value of seed stock + revenue received during the year)

Expected profit of your enterprise = (Total B) – (Total A)

A successful seed enterprise should aim at selling all its seed during the year (no carryover stock) such that both opening and closing value of seed stock equal zero. The profit during the year will therefore be determined only by the difference between the revenue received and the expenses made.

- iii) Preparing a net worth or balance sheet for Year 1

- iv) Sensitivity (“what if”) Analysis

- What will be the effect on your enterprise of some key financial variables?

Accounting records

How will you manage and keep your accounting records?

Sample Financial Plan

This plan outlines the amount of money BAS will need to cover both its startup and operating costs, and how much income the enterprise expects to generate after sales of its first batch of wheat and rice seed.

The total establishment and first season operational costs of BAS will amount to US\$ 177,300 as summarized in the following table:

Item	Cost (US\$)	Percentage (%)
1. Machinery and equipment costs (fixed costs)		
- Tractor	10,300	
- Accessories for tractor	2,500	
- Air compressor for tractor	380	
- Implements for tractor	2,390	
- Thresher	2,000	
- Seed drill	500	
- Harvester (Windrower)	1,700	
- Seed cleaner	80,000	
- Ridging and ditch machine	240	
- Transport van	10,000	
- Motor cycle	600	
- Store	40,000	
- Furniture and fixtures	300	
- Sub total machinery and equipment cost	150,910	
2. Administration charges (Fixed costs)		
- Office supplies	500	
- Salary for cashier/accountant	800	
- Salary for tractor driver / operator	800	
- Wages for office labor	1,000	
- Van operation	2,000	
- Promotion and marketing	500	
- Sub-total administration charges	5,600	
- Sub total fixed costs	156,510	88.3%
3. Seed multiplication costs (variable costs)		
- Buying 12,000 seer raw wheat seed @ Afs30 (\$0.63) from growers	7,500	
- Buying 16,000 seer raw rice seed @ Afs35 (\$0.70) from growers	11,667	
- Processing 12,000 seer (84 tons) wheat seed @ \$3.7 per ton	311	
- Processing 16,000 seer (112 tons) rice seed @ \$2.8 per ton	314	
- Seed treatment, bags and storage costs for 84 tons wheat seed	482	
- Seed treatment, bags and storage costs for 112 tons rice seed	516	
- Sub total variable costs	20,790	11.7%
GRAND TOTAL COSTS (Initial Costs for Year 1)	177,300	

As regards revenue BAS intends to clean and sell up to 10,500 seers of wheat and 14,300 seers of rice seed from 20 hectares.

Item	Amount (US\$)	Percentage (%)
1. Sale of processed seed		
- 10,500 seers wheat seed @ Afs 80/seer or US\$ 1.66/seer	17,430	
- 14,300 seers rice seed @ Afs 100/seer or US\$ 2.07/seer	29,601	
Total sale of processed wheat and rice seed	47,031	

On the basis of annual production cost of \$32,285 including depreciation, BAS will earn a net profit of US\$ 14,746 equivalent to a margin of 46%.

The cash flow on the next page is planned on the basis of the operational plan of BAS during the first two cropping seasons (20 months starting from October) of wheat and rice seed production:

Cash flow plan of BAS Enterprise for the first two cropping seasons (20 months)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Beginning cash position	20000	19599	19198	18798	18396	17995	17594	176711	12160	8609	7558	2907	2256	8927	10290	9789	9288	8773	18272	32771	
Cash received																					
Sale of wheat seed	0	0	0	0	0	0	0	0	0	0	0	5000	10000	2430	0	0	0	0	0	0	17430
Sale of rice seed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10000	15000	4601	29601
Total cash received	0	0	0	0	0	0	0	0	0	0	0	5000	10000	2430	0	0	0	10000	15000	4601	47031
Cash paid out																					
Buy wheat seed from growers	0	0	0	0	0	0	0	4000	3000	500	0	0	0	0	0	0	0	0	0	0	7500
Buy rice seed from growers	0	0	0	0	0	0	0	0	0	0	4000	5000	2667	0	0	0	0	0	0	0	11667
Processing	0	0	0	0	0	0	0	0	0	0	100	100	1110	1001	0	0	114	0	0	0	625
Seed treatment, bags, etc							482							516							998
Office supplies	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	840
Salaries and wages	217	217	217	217	217	217	217	217	217	217	217	217	217	217	217	217	217	217	217	217	4340
Van operation	100	100	100	100	100	100	100	250	250	250	250	250	250	250	100	100	100	200	170	170	3320
Promotion and marketing	42	42	42	42	42	42	42	42	42	42	42	42	41	42	42	42	42	42	42	42	840
Total cash paid out	401	401	401	401	401	401	883	4551	3551	1051	4651	5651	3329	1067	501	501	515	501	501	471	30130
Net cash in hand	-401	-401	-401	-401	-401	-401	-883	-4551	-3551	-1051	-4651	-651	6671	1363	-501	-501	-515	9499	14499	4130	16901
Cash at month end	19599	19198	18797	18396	17995	17594	16711	12160	8609	7558	2907	2256	8927	10290	9789	9288	8773	18272	32771	36901	

BAS will record and present all its financial transactions in suitable and acceptable manner that will be used for monitoring and control. Account statements will be prepared periodically to measure performance in terms of profit or loss that is being generated and what actions could be taken.

A forecast profit and loss account for BAS at the end of Year 1 indicates a good pre-tax profit of \$14,746 from its operations. The cash flow forecast analyzed on a monthly basis shows cash balance of \$36,901. These statements show that BAS will have more than sufficient cash that will be required to put its planned operations into effect and to also meet its capital needs.

Profit and loss account of BAS Enterprises as at 31 December of year 1

<i>Opening valuation (US\$)</i>		<i>Closing valuation (US\$)</i>	
-Wheat seed	0	- Wheat seed	0
-Rice seed	0	-Rice seed	0
<i>General expenses</i>		<i>Receipts (US\$)</i>	
-Depreciation	5895	-Wheat seed sales	17430
-Raw wheat seed purchase	7500	- Rice seed sales	29601
-Raw rice seed purchase	11667		
-Wheat seed processing	311		
-Rice seed processing	314		
-Seed treatment	998		
-Administrative overheads	5600		
<i>Profit</i>	<i>14746</i>		
<i>Total</i>	<i>47031</i>	<i>Total</i>	<i>47031</i>

The financial transactions outlined in the profit and loss account and the cash account are supplemented by a projected balance sheet, which shows the assets and liabilities of BAS or its financial viability at the end of Year 1. BAS will have nil accounts payable, since raw seed and other direct material purchase will be paid for fully during Year 1. Similarly, accounts receivable will be nil because all seed will be sold by end of Year 1. The balance sheet also indicates a healthy net worth or owner's equity of \$180,106. This is what the enterprise will be worth in financial terms at the end of Year 1.

Balance sheet of BAS Enterprises as at 31 December of Year 1

<i>Fixed Assets (US\$)</i>		<i>Long-term liabilities (US\$)</i>	
-Machinery, equipment, store, etc.	149,100	Bank Loan	0
-Accumulated depreciation	5,895	Sub total	0
Sub total	143,205		
<i>Current Assets (US\$)</i>		<i>Current Liabilities (US\$)</i>	
-Cash in hand(end Year 1)	36,901	Accounts payable	0
-Accounts receivable (Wheat seed stock)	0	Taxes payable	0
-Account receivable (Rice seed stock)	0	Sub total	0
Sub total	36,901	Net Worth (owners equity)	180,106
<i>Total</i>	<i>180,106</i>	<i>Total</i>	<i>180,106</i>

As a cost control measure, BAS will monitor causes of variation in its gross margin or gross profit (value of output minus the variable cost) and take corrective actions. The main causes of variance are normally changes in sales price of seed and prices of inputs. The following Table presents a sensitivity analysis, which assesses how net income or profit generated by BAS could be affected by specified changes in some key variables such as a 15% reduction in revenue resulting from lower sales price of seed or 15% rise in variable costs arising from increase in price of inputs. In both cases, although the business will be sensitive to these changes in terms percentage changes in gross and net margins, it will remain profitable in dollar terms.

Item	Reference	Scenario A		Scenario B	
	\$	\$	%	\$	%
Total revenue	47,031	39,976		47,031	
Total variable cost	20,790	20,790	-15	23,909	+15
Fixed overhead cost	11,495	11,495		11,495	
Gross margin	26,241	19,186	-27	23,122	-12
Net margin	14,746	7,691	-48	11,627	21

Given the current costs and prices, another sensitivity analysis is to show the output level at which BAS can breakeven. The breakeven point in seers for BAS is calculated using the following equation:

Breakeven point = Total fixed cost/ (Selling Price per seer) – (Variable Cost per seer)

Total Fixed Cost = \$11,495

The average selling price per seer for wheat and rice seed could be taken as Afs90=\$1.88

Variable cost per seer = \$20,790/24,800 seers = \$ 0.84 per seer

Therefore breakeven point = \$11,494/(\$1.88 - \$0.84) = 11,053 seers

The analysis above shows BAS needs to produce a combined total of about 11,053 tonnes of wheat and rice seed such that the revenue from sales equals exactly the total costs incurred. The planned combined output level of 24,800 tonnes is about twice the estimated breakeven point, again indicating BAS as a potentially cost-effective enterprise.

4. MARKETING AND SALES PLAN

Any marketing strategy comprises four basic elements referred to as the four 'Ps' namely PRODUCT, PRICE, PLACE and PROMOTION.

In the case of marketing by seed enterprises, certain questions need to be answered in relation to these four elements as follows:

(i) Product (the seed you sell)

To sell your seed, you must assess effective demand for it and what farmers would like or may not like about it. You should compare your seed with that of other suppliers and justify why farmers would prefer your seed over those of your competitors.

- What will be unique about your seed? (e.g., type of varieties, quality status)
- Which agencies, traders or farmers will be your major customers and where will they be located?
- What will be the relative size of their purchases?
- Why will they prefer to buy your seed?
- What type of packaging material, sizes seed treatment will you use and why?

(ii) Place

The relative locations of the production fields, seed conditioning and storage facilities, and the sales points are important in terms of transportation costs and access to customers.

- Where will you locate your enterprise offices, storage and conditioning facilities, and why?
- Where will you locate your sales points and why?
- Who are your competitors and where are they located?
- What is their relative market share at present in the seed you wish to offer?
- What types of marketing channels are available and where are these located (e.g, traders, agri input dealers, marketing cooperatives, etc.)
- What are the strengths and weaknesses of these various channels for selling your seed?

(iii) Price

The price of your seed will be based on your production costs, the willingness of your customers to pay as determined by prices charged by other suppliers, and your perceived profit margin. This may depend on the nature of seed and the demand for it.

- If different, what will be your price per unit for agencies, traders or farmers and why?
- How will you determine the final price? (e.g., as your group's decision, in consultation with local government, as your association's decision)
- What price range are other suppliers charging for the same kind of seed?
- How stable is your price or is it subject to change? If so, what factors would influence the change in price?
- Why do you think your customers will afford and will be willing to pay the price you charge?
- Is there any possibility for discount on large orders or purchases?

(iv) Promotion

You should use a variety of methods or strategies to inform different categories of customers about the seed you offer and convince them to buy.

- How will you promote your seed before and after harvest to different categories of potential buyers?
- What accompanying service will you provide your customers besides just selling seed to them?
- What are the strengths and weaknesses of your competitors?
- How do you intend to cope with this competition and influence the perception of buyers?
- What will be your marketing or seed selling strategy? (e.g., brand image, pricing, product mix, customer oriented selling approach, after sales service, etc.)

Sample Marketing and Sales Plan

BAS Enterprise will offer the same or better quality seed than other suppliers in the market, but sell at a more reasonable price of \$1.66 per seer or \$237 per tonne for wheat seed and \$2.07 per seer or \$296 per tonne for rice seed in comparison with the prevailing price of \$240 and \$300 per tonne respectively. The enterprise will charge significantly less for its seed than other companies because of its lower overhead expenses and fewer employees it will engage.

As part of this strategy, BAS will promote its seed in the farming communities using a preferred mode of word-of-mouth advertising. This is also in line with a recent survey by the Agricultural Extension Department, which shows that most of the seed-buying farmers in the area typically prefer close and direct relationships with the seed supplier. BAS sales staff will, therefore, approach the farmers in person in order to identify their seed needs and how to satisfy them.

BAS will sell most of its seed through dealers in strategic rural locations who have direct dealings with farmers. The preferred dealers will, therefore, be traders selling general goods, agro-chemicals and farm tools, and who also provide farmers with credit facilities.

The enterprise will popularize its brand image in the form of three attractive spikes of wheat and the associated slogan of "You Reap What You Sow", which will be promoted vigorously.

5. MANAGEMENT PLAN

Your Management Plan should explain the organizational and management structure of the enterprise, the hiring and personnel procedures, and how the business will be managed on a day-to-day basis.

- What are the names and responsibilities of the group enterprise members?
- Which additional skilled staff will the enterprise hire, for which tasks and why?
- How will you recruit these personnel?
- How much salary will you pay these staff?
- What will be the organizational structure of the enterprise?
- How will the enterprise's accounts and records be kept?

Sample Management Plan

BAS Enterprise plans to keep wage and salary expenses low, at least initially. To achieve this objective, all management positions will be occupied by the group enterprise members who fortunately possess the relevant qualifications and experience. The remaining staff will be daily-waged workers, and casual labourers who will be hired during the busy periods.

Mr. Rasheed's long experience and good personal skills will be vital in leading BAS in the right direction, in capable partnership with Mr. Naweed. Another member of the group enterprise, Mr. Mohammad Khan, a retired certified accountant with valid financial management experience will handle the enterprise's finances. This position will be vital to continued financial viability of the business.

With a small number of employees, BAS will encourage dynamic teamwork and open access with no bureaucratic hindrance. The business will use its profit to provide attractive working conditions and appropriate incentives that will keep its dedicated staff in the enterprise.

(vi) CONCLUSIONS

The Conclusions once again should summarize your goals and objectives and express your commitment to the success of your business, discuss your future plans and perspectives, re-investment plans and your plans for expansion in the near future. Your conclusions should explain how you expect to realize these plans.

Sample Conclusions

BAS Enterprise will endeavour to attain leadership in the supply of improved wheat and rice seed in Afghanistan. The pursuit of high quality will be the driving force in the business. To achieve this, the enterprise will use the dedication, experience and skill of its members in key technical and management positions. Extensive promotional activity will help to ensure that BAS's customers perceive that they are receiving the best quality seed, on time, and at a reasonable price.

The future of the improved wheat and rice seed industry in Afghanistan looks bright, and BAS is poised and positioned to take advantage of this commercial opportunity.

Exercises and discussion points

1. Which aspects of the business plan would you put most efforts into if you wish to convince a bank to borrow you money for your seed enterprise? Justify and explain your answer.
2. Design a logo you would like for your new seed enterprise and explain why you would prefer this particular logo.
3. What marketing links would you focus on that you think would ensure your enterprise maintains a reliable customer base for a sustainable future?
4. Which category of customers would you like to target each year with the seed that you sell and why? Estimate their relative market share (%) for the seed you will sell.

Notes

Notes

CHAPTER 5

Planning your seed production

Having made your business plan and obtained the funds needed, the next step is to decide on your seed production strategy.

To begin with, plan your production carefully so that you produce seed according to the prospect and pattern of real demand by farmers.

Meet and interview farmers, traders, etc., to find out which crops and varieties are in need.



Decide on which proportion of the enterprise's output will be produced by the group members and which will be allocated to contract growers. Select your growers carefully by looking for characteristics such as trustworthiness, honesty, experience and knowledge of agriculture, and willingness to follow advice. In situations where individual land holdings are small, using contract farmers may be the only means of expanding your seed production. It could also be a way of involving or associating other farmers with

your business. Furthermore, allocating seed production to contract farmers could relieve the enterprise of the day-to-day concern about crop husbandry care so that the enterprise could focus on the seed specific post-harvest issues.

Seed production follows normal agronomic practices that are required for growing a good crop. However, in addition to these practices, there are some specialized activities needed for growing a crop specifically for the purpose of seed:

Organize meetings to select the best farmers as contract seed growers.



Select a piece of land that has been either under fallow or under rotation with other crops. This will ensure reduction in the incidence of volunteer plants, weeds and diseases. Ensure good isolation requirements in the case of cross-pollinated crops.



Maintain your crop well using normal agronomic practices. In addition, do proper roguing to remove off-types of other varieties and crops.



As part of the certification process, all seed fields will be inspected by independent and official inspectors who will verify whether these fields meet the minimum field standards for the class of seed grown. Only those fields that meet these requirements will be recommended for harvesting as seed.

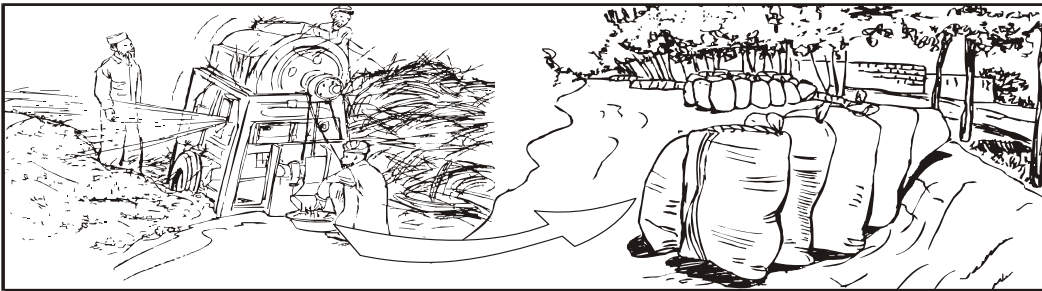
Keep your field clean so that it meets the minimum field standards and passes the field inspection test.



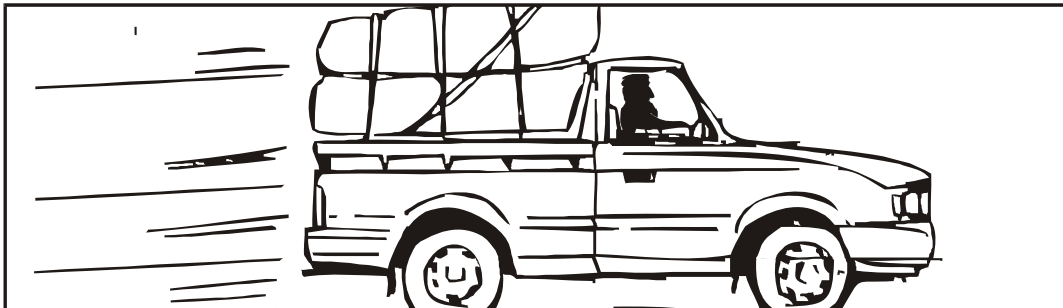
Harvest your crop and maintain the identity of your variety and class of seed.



Choose a clean area for threshing your seed. Ensure that your threshing machine is well cleaned and does not contain any seed from a previous operation. Put your threshed seed into clean unused bags and label them with full details about your seed.



Maintain the identity of your seed during transportation to the seed cleaning centre.



Exercises and discussion points

1. What attributes are most difficult to find amongst the farmers you would wish to make contractual arrangements with for seed multiplication in your area? What are the three most important attributes you would look for in selecting your growers?
2. Why do you think roguing off-types is a good practice in seed production? What would you do in your area to reduce the amount of off-types and volunteer plants in seed fields?
3. What methods do you use for threshing seed in your community? Which one of these do you think is best for seed production and why?

Notes

CHAPTER 6

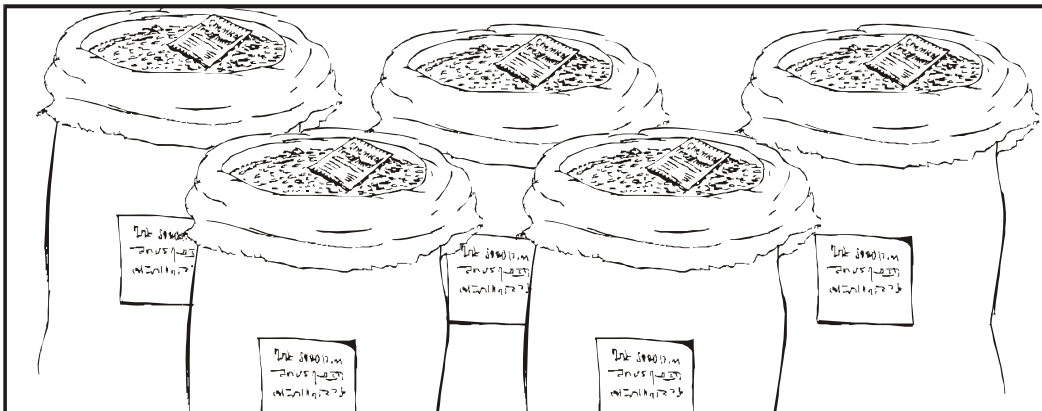
Cleaning, treating, packaging and storing your seed

Cleaning is an important operation that upgrades the physical quality of your seed.

Pre-clean your seed on the farm to remove large unwanted materials such as straw, large stones, etc.



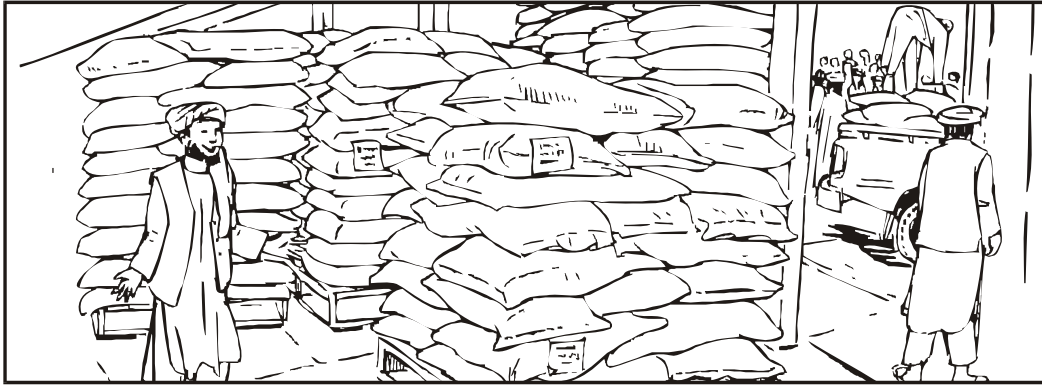
Put the cleaned raw seed into new bags bearing details about the crop and variety.



Transport your raw seed to the seed cleaning centre for final cleaning. Use the processing machine to clean your seed to make it physically pure by removing all unwanted materials like seed of other crops, weed seeds, chaff, stones broken seeds and shriveled grains, etc.

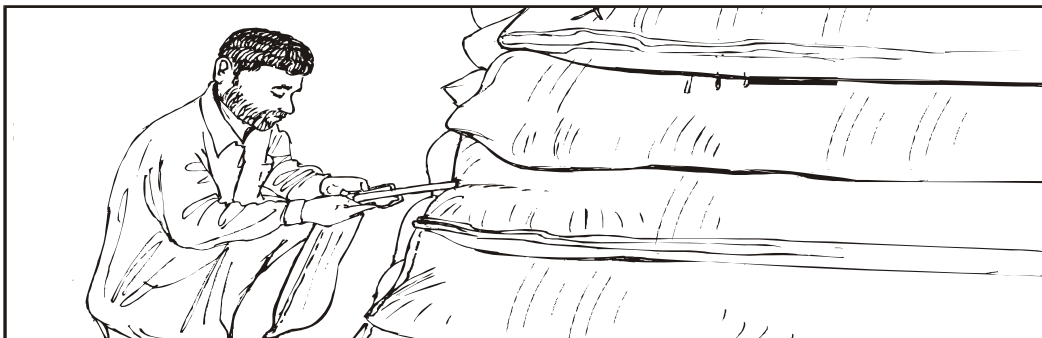


Use suitable chemical treatment against seed-borne diseases and pests. Seal the bags and label them with full details about the seed and put the same information inside each bag for a particular seed lot.



Place your sack in small batches suitable for sampling and fumigation.

- Request the quality control department to collect samples from your seed lots and submit for testing. Do not distribute your seed until the test results are available.
- The laboratory or certification agency will issue official tags for those lots that meet minimum quality standards after seed testing.
- Attach official certification tags to each bag of all certified seed lots. The tags should bear details about the seed including name of crop, variety, lot number, class of seed, and date of certification.

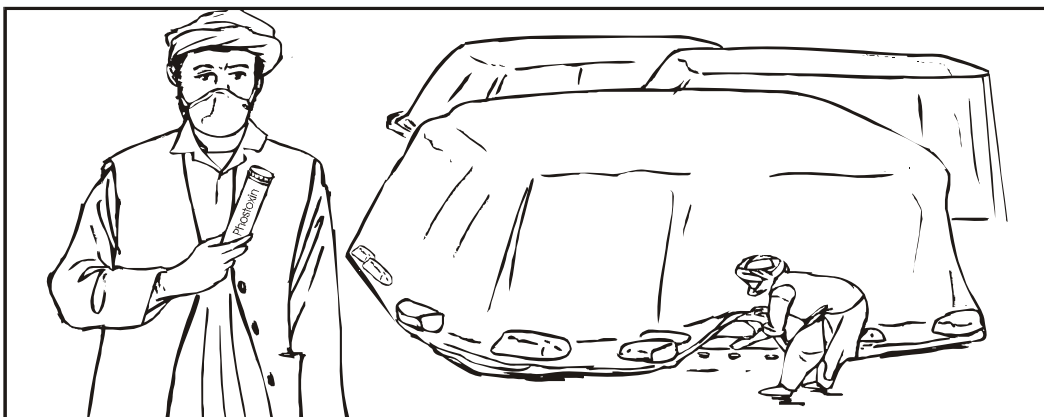


Store your seed properly and under good conditions until it finally reaches the farmer for sowing. Use proper techniques, for example:

- Use wooden pallets to keep the seed from direct contact with the floor.
- Keep your seed away from the walls and the roof to allow easy inspection and control.
- Do not store seed and fertilizer in close proximity with each other.



Inspect your seed lots periodically and fumigate against storage pests when necessary.



Exercises and discussion points

1. Which seed cleaning method would you prefer for your enterprise? What advantages has this method over others?
2. How would you ensure your seed lots are sampled and tested in time for marketing to farmers? What would you do in sampling your seed lots to make sure that a smaller lot size (e.g. 5 tonnes) and a larger lot size (e.g. 10 tonnes) both give equally reliable and representative samples for seed testing?
3. Which would you prefer: treating all seed at the processing point or dispatching the seed with separate packs of chemical for the farmer to treat the seed himself? Give reasons for your answer.
4. What internal quality assurance methods do you use to ensure your fields and seeds meet the minimum quality standards?

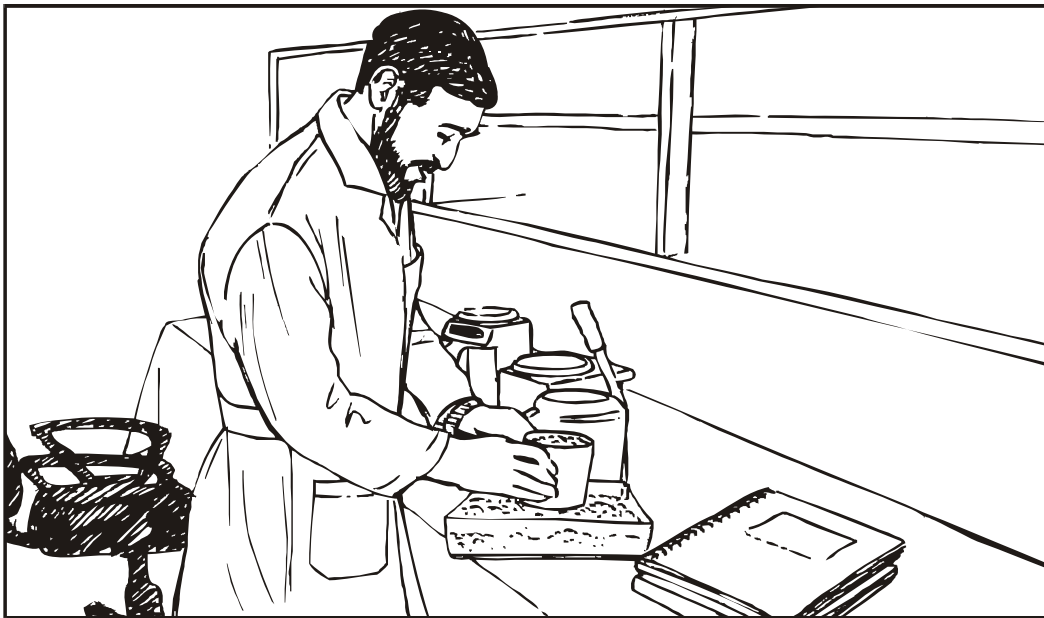
CHAPTER 7

Testing the quality of your seed

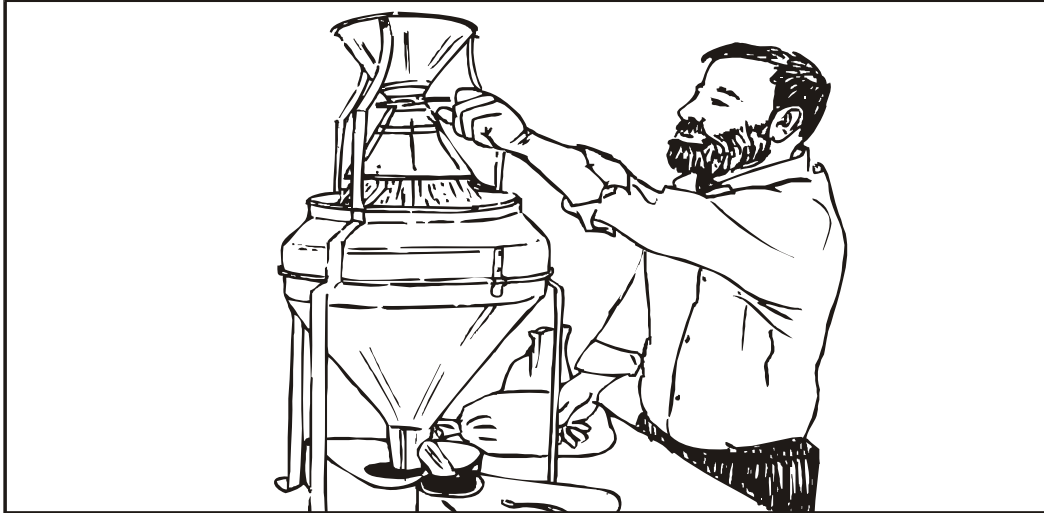
Certain important tests are carried out once the seed samples reach the laboratory. The tests will last about ten days before the results are made available.

Testing the seed for moisture content.

The seed is first tested to ensure it has the right moisture content. The correct moisture content is important for storability of the seed. The optimum moisture content for wheat seed should be in the range of 10-12%. High moisture content can cause rapid deterioration of the seed, while too low moisture content can result in mechanical damage to the seed.



The seed sample is then randomly divided into a working sample for the various quality tests. The working sample must be representative of the lot it comes from.



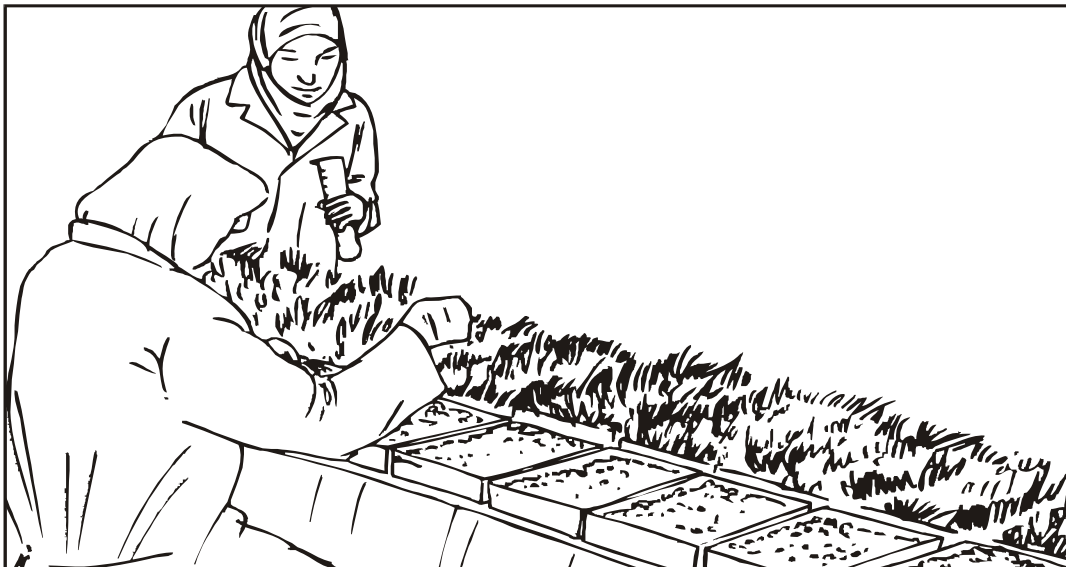
Testing the seed to ensure it is well cleaned and is true-to-type or pure seed of the same crop and variety.



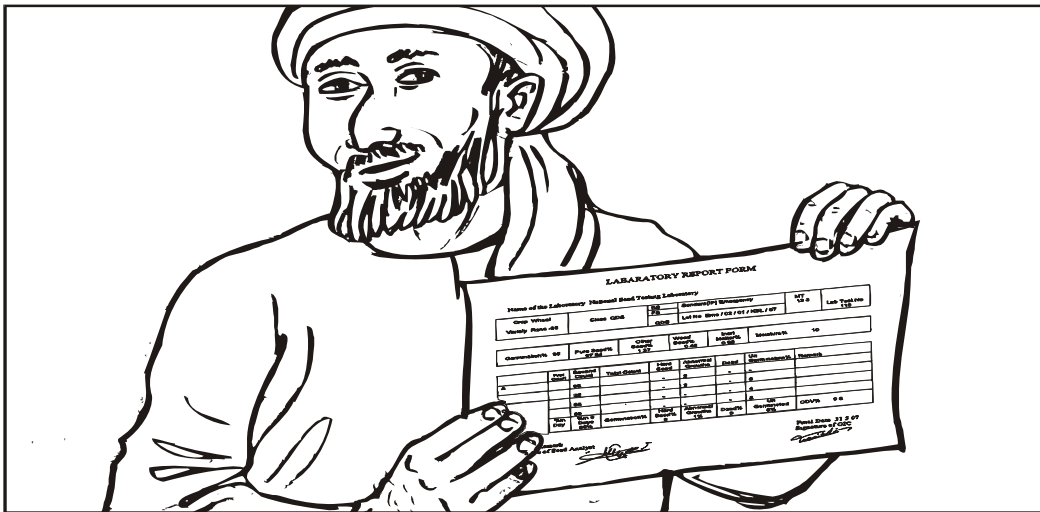
Testing the quality of your seed to ensure the product you sell is free from seed-borne diseases.



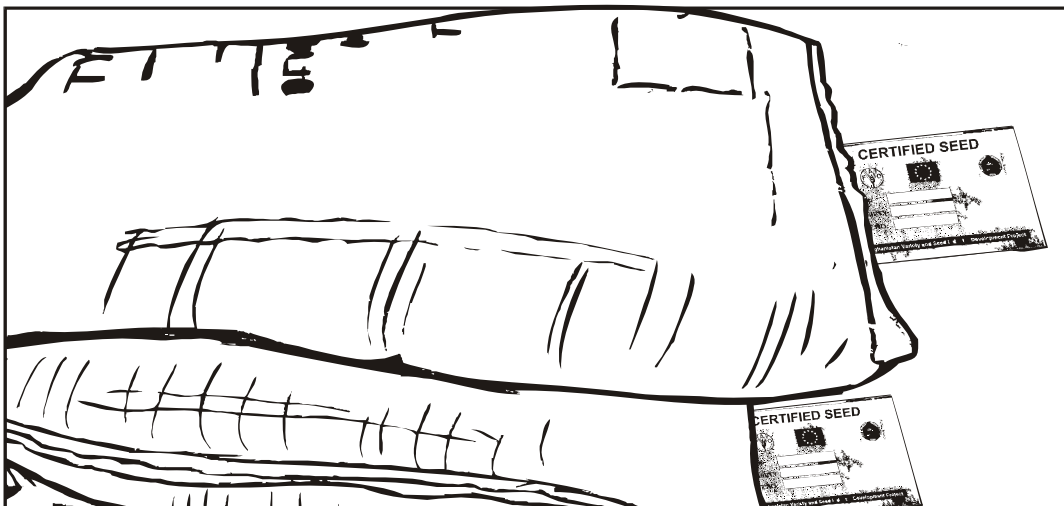
Testing the seed to make sure it will germinate and grow well in the field.



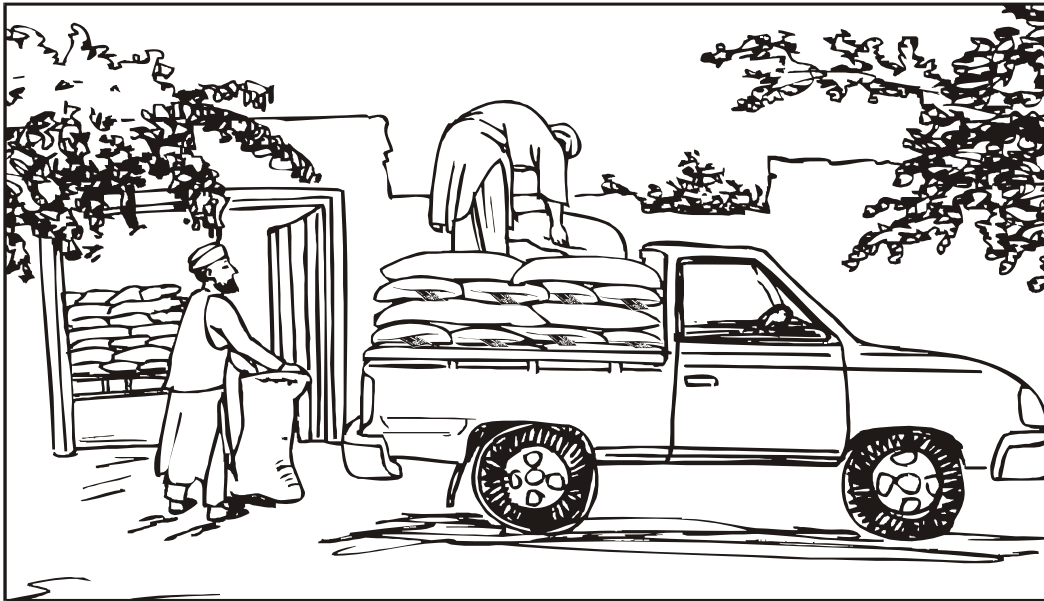
After the tests are completed, the laboratory will issue a quality certificate for each lot indicating the results of moisture content, physical purity, varietal purity and health status if required



The laboratory or agency will issue a certification tag to be attached to all seed lots that pass the quality tests



Wait for the test results and dispatch for sale only those lots that pass the laboratory tests and have certification tags.



Exercises and discussion points

1. Which quality standard do you consider most difficult to meet and why? In case your seed lot is rejected, what would you do with it?
2. Is it better to check the genetic purity of your seed in the laboratory or in the field? Explain your answer.
3. Why do you think it is important to wait for quality results from the laboratory before dispatching seed to customers?

Notes

CHAPTER 8

Promoting and selling your seed

Marketing the seed you produce

- For your enterprise to succeed, you must sell all the seed you produce each season. This requires a thorough knowledge and understanding of which crops and varieties farmers would desire and the quantity of seed they would need.
- The enterprise should obtain this information in advance and use it in making its production plan so that the enterprise produces seed only according to the prospects of real market demand.

Some essential activities that must be done to make good seed sales:

Promote your varieties and seed through field days and on-farm demonstrations.



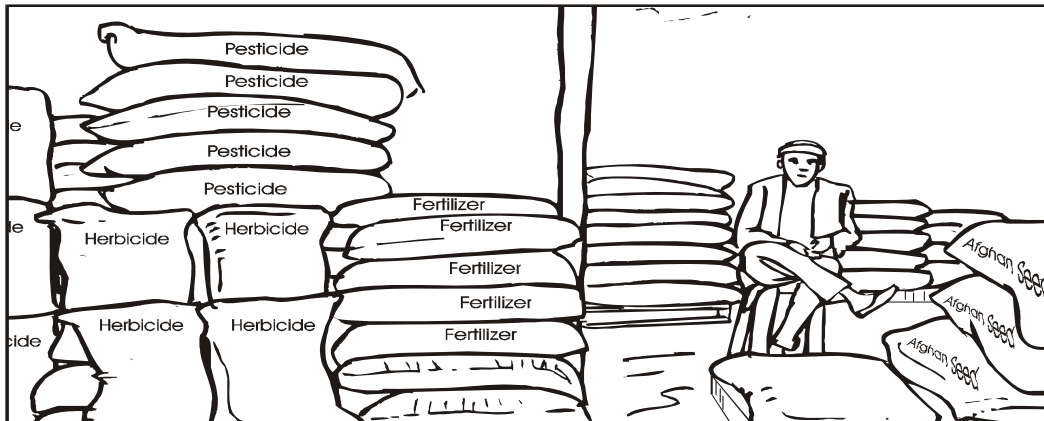
Participate and make displays (e.g. attractive posters and seed samples) at agricultural fairs, meetings or conferences. Talk to participants and distribute brochures and your business card.



Distribute your seed through sales agents located in places that farmers visit frequently such as market bazaars. Ensure that your agents know about seed production, handling and management such that they can give farmers appropriate extension advice.



Endeavour, where possible to sell your seed together with related inputs and other items that farmers would need such as fertilizer, pesticide, herbicide and hand tools. This will enable the farmers to purchase as much of their inputs from one source as possible.



Find out the prevailing market prices for grain and seed of your crop.



Deciding on the right selling price.

To sell at an appropriate price, the enterprise must know its total cost and the components of its cost structure, and understand how particular costs are incurred and how to influence the level of these costs. You can then add a reasonable profit margin to the total cost to fix the selling price. This is called the 'Cost Plus' method of pricing.

Alternatively, you can base your selling price on the affordability and willingness of the farmer to pay a certain level of price for quality seed. To use this method effectively, you need to know the prices other producers are charging for the same kind of seed. A proper price determination uses a combination of both methods mentioned. This means that you must calculate your full costs and also have a good understanding of the final market conditions for your seed.

The procurement of seed from contract growers is the most significant cost for the enterprise. You must have enough money available at the right time to buy raw seed from your growers and at the right price.

Making profit.

- To make profit, the enterprise must get more money from selling its seed than the total cost it incurs from producing and selling the seed. Carryover of unsold seed from one season to another should be avoided because the quality of such seed may fall thus reducing its value and price and making the business less profitable.
- The enterprise should aim at a certain profit margin that will ensure the business continues to survive while charging a competitive price.

Some essential activities that must be done to make profit:

Have a full store at the start of the season.



Sell your seed at a good price that farmers can afford and are willing to pay.



Have an empty store at the end of the season.



Maintain good financial records and have good knowledge about your expenses, expected income and potential profit level.



Provide good after-sale service for your customers.

Quality, price, and service are three factors that are critical to the success of any seed enterprise. The type of service you provide for your customer following the sale of seed should be an integral part of your company's marketing strategy from the start.

Proper service begins with timely delivery of quality seed at acceptable price to your customers. You must continue to care for your customers after selling seed to them by dealing with any complaints they may have, providing any needed advice and ensuring that you maintain customer loyalty.

It is important that you ask your customers to give you feedback about the performance of the seed you sold to them. Remember that properly handled service can be a foundation for growth of your business. You cannot ignore it or leave it to chance.

Exercises and discussion points

1. If a tonne of wheat seed costs a total amount of \$200 to produce, what will be your selling price if you intend to make a 15% profit margin?
2. What promotional methods would you use for the different categories of customers in your community?
3. Why do you think it is critical that you have sufficient cash available and at the right time to procure raw seed from your contract growers? How would you raise this money?
4. Why is it necessary to avoid large carryover of seed from one season to the next? How can you organize your seed business to avoid carryover of seed?

CHAPTER 9

Managing your seed enterprise

Good management is essential for any business. In general, there are two main components of good management in group enterprises. First, is competent and dedicated group of people that come together to form the enterprise. Second, and equally important, is internal organization of the group members in such a way that they can undertake the various tasks and work together efficiently. The key tests of good management are ways in which the financial affairs are run and recorded, and the capacity of the group to monitor and evaluate success of the business.

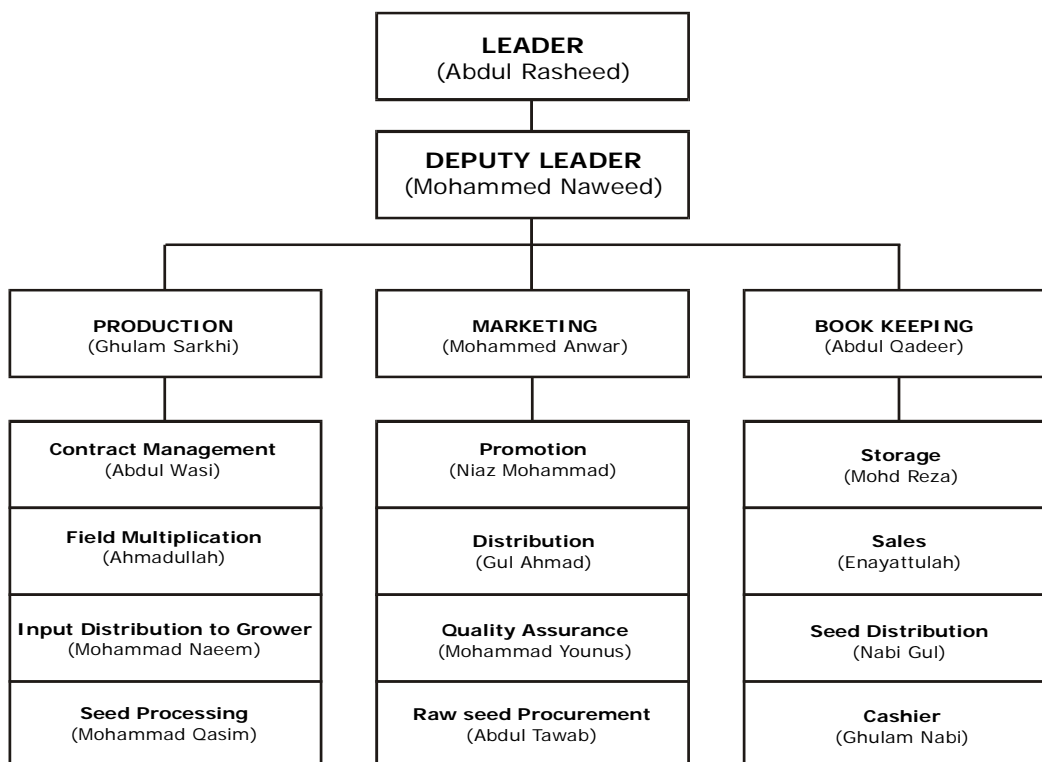
Internal organizational arrangements, leadership and teamwork

As much as possible, all essential functions and responsibilities of the enterprise should be shared among the members of the group on the basis of capability and interest. If certain essential skills are not available within the group membership, the enterprise may consider hiring and paying for persons with such skills.

Someone must be put responsible for each activity in the enterprise. These persons will carryout or supervise the necessary functions and report on them. The respective responsibilities and duties of the members must be fully understood by everyone in the enterprise. Once someone is put in charge of an activity, he should be given the authority to carry out the required functions in consultation

with other members when necessary.

As much as possible, there should be an even distribution of tasks and responsibilities in the group (see figure below) in order to avoid overburdening few members or the leader with many duties. This is even more important where members may not expect to be paid for the group tasks they perform. The nature of cooperation among the group members will be the key to success of the business. The members should cooperate with each other in sharing work, responsibility and information.



Organizational Structure of Best Afghan Seed Enterprise

An enterprise that depends only on few persons for its functioning cannot have a bright future. A proper distribution of functions among several members is important for transparency, accountability and sustainable

management of the group enterprise. This means that more members should have a good understanding or receive training in each essential activity such that these tasks can be rotated among the members over time. As more people know what is happening in the enterprise the easier it becomes to share information, exchange ideas and opinions, and make joint decisions.

The following are key tasks often found in a small seed enterprise:

- Organization of contract growers and supply of needed inputs
- Seed production and extension
- Raw seed procurement from growers and transportation
- Seed cleaning, packaging and storage
- Quality control
- Marketing and sales
- Book keeping and financial accounting

A successful seed business requires good leadership. The key role of the group leader is to promote teamwork and team spirit, enhance organizational performance and build trust, which he can do only through openness, sharing information, accepting constructive criticism, and resolving conflicts in the group.

The group leader must therefore possess certain essential qualities and skills such as:

- Influence, dignity and respect in the community and amongst the group members;
- Talent in leading others (wisdom, good judgement, and creates trust);
- Honest and trustworthy;
- Reliable and predictable;
- General knowledge and experience of the enterprise's different tasks;
- Non selfish tendency, but work for collective benefit of

the group enterprise;

- Strong, but listens to the views of others and consults them in making key decisions;
- Transparent and willing to share information with other members;
- Respectful of the enterprise's by-laws;
- Pro-active, energetic and ambitious;
- Business oriented and customer focused;
- Commitment to continued success of the enterprise;
- Presents good image of the enterprise to outsiders

The above list may seem long, but in brief, the ideal leader of an enterprise must have a combination of business management and sound personal qualities.

As for other essential tasks, it is also good practice to change the group leader after a number of years so that the enterprise does not become dependent on the direction of one person. There should be a rule or provision in the by-laws of the enterprise for this.

To design an organizational structure for a seed enterprise, the various activities or tasks are normally grouped into distinct categories on the basis of similarity in function, which are then classified as divisions of the enterprise. For example, activities under the Production Division would include contract management, seed multiplication, seed cleaning and seed storage, while promotion and sales will be put under the Marketing Division. Considering the activities outlined earlier, an organizational structure similar to that described earlier could be envisaged for a small seed enterprise.

Preparing and keeping proper business records

Running a successful seed business depends on preparing and keeping accurate and timely financial information.

What is record-keeping?

Record-keeping is a way of writing down all transactions involving:

- Money coming into your enterprise
- money going out of your enterprise
- money owed to your enterprise by customers

Why keep records?

Good records will help you do the following:

- Monitor the progress of your enterprise: You need a clear financial picture in order to monitor the progress and success your enterprise is making. Records can show whether your business is improving, which varieties are selling well, or what changes you need to introduce.
- Help you deal with your bank: You will require written records when your enterprise needs financial assistance from external sources such as banks and other lending agencies. You need to show the bank how your business is performing.
- Prepare your financial statements: Accurate and complete records enable you to identify your business assets, liabilities, income and expenses. Good records are therefore essential for the preparation of financial statements, such as the income statement (profit and loss), cash-flow projection and balance sheets.

What are the merits of good record keeping?

Complete and accurate record keeping is crucial to the success of your enterprise for a number of reasons:

- It provides you the information you need to make valid decisions.

- It helps you to recall easily the transactions you have made.
- It makes your business transactions transparent.
- It makes checking and verification easier and hence improves accountability.

Who should write and keep financial records?

Some level of literacy and expertise is required to write proper financial records. It is best that someone in your enterprise takes on the responsibility of keeping an accurate set of financial records. If nobody has such skills then the enterprise would have to hire or rely on an outside capable person to prepare the financial statements.

How should you keep your business records?

You need to find the record keeping system that works best for your enterprise and is most suitable for your business needs. You may decide to use simple exercise books, keep file folders or buy special accounting books. The following are some suggested ways in which you could keep your business records:

- File all business documents in an orderly manner and keep them in a safe place.
- Use folders or files divided into categories or sections for specific transactions.
- Put receipts in the proper categories by date so it would be easier to add them up.
- Maintain your records on a regular basis.

What record keeping system or kind of records do you need?

Your record keeping system should be simple to use, easy to understand and accurate. It should basically provide

summaries of your various business transactions, such as items you buy, seeds you sell and people that work for you. These summaries are ordinarily made in books called ledgers, which you can buy at local stationery stores. A ledger simply provides you a way of keeping organized records of all your business income and expenses.

In addition to the records you make, you must keep all relevant supporting documents in order (for example, price quotations or invoices, receipts, sales slips, and paid bills). It is important to keep these documents because they support the entries in your ledgers. You should set up and maintain four basic set of financial records:

(i) Cashbook (Petty cash records)

The cashbook is the final record of all money that comes into and goes out of your business. It should be used on a daily basis for each transaction and lists everything your business buys or sells either for cash or credit.

You should keep written evidence of all transactions you make. To complete your cashbook, you will need documents including the following:

- Bank paying-in book
- Bank statements
- Copies of your own invoices
- Your suppliers' invoices
- Receipts of all cash purchases

Your cashbook should separately show all money coming in (receipts or sales) and all money going out (payments or purchases).

Below is an example of entries in a cashbook. The business sells seed at \$300 per ton and buys other things such as fertilizer and paper and pays workers.

Date	Explanation	To/from	Money in	Money out	Balance
Day you receive or pay out money?	Money was received or spent on what?	Who paid or received money?	Cash received?	Cash disbursed?	Cash Balance?
1 January					\$10,000
1 January	100 bags DAP fert. @\$10/bag	AFC Ltd.		1,000	9,000
15 January	100 bags Urea fert. @\$10/bag	AFC Ltd.		1,000	8,000
20 January	Sold 10 ton seed @ \$300/ton	Afghanaid	3,000		11,000
5 February	Sold 20 ton seed @ \$300/ton	High school	6,000		17,000
8 February	5 reams paper @\$20/ream	City store		100	16,900
10 February	20 worker days @ \$5/person day	Workers		100	16,800
20 February	Sold 1 ton seed @\$300/ton	Khan (farmer)	300		17,100
TOTALS			9,300	2,200	17,100

The cashbook alone may provide sufficient record for many small businesses. However, keeping additional records such as a sales ledger, purchase ledger and wages book may make it easier to monitor your cash flow.

(ii) Sales ledger (e.g., seed sales ledger)

In this ledger you enter all sales whether or not the customer has actually paid for the seed that he took. Every time a customer takes seed and you issue an invoice, it is important to record it in the sales ledger. If a customer actually pays for the seed and a receipt is issued, this payment must be entered in the sales ledger with the number of the receipt, which you should stamp as "paid". The income or amount of money is then entered in the cashbook.

The sales ledger is a useful business monitoring tool that helps you to trace and reminds you about payers who have taken seed on credit and have not yet paid for it. You should periodically (for example, each week) add up the total amount of money owed to your business. A reminder should be sent to those customers that have exceeded the time limit for payment. All those customers who owe you money should remain on the sales ledger until their debts have been cleared. The sales ledger also helps you to keep track of your fast paying and loyal customers. To support your sales ledger, you need to retain copies of your invoices and receipts. These must be filed orderly and kept in a safe place.

A sales ledger should record the following:

Date of invoice	Name of buyer	Description of sale	Invoice number	Amount (\$)	Date invoice paid
20 Jan 07	Afghanaid	10 ton seed @ \$300/ton		3,000	20 Jan 2007
5 Feb 07	High school	20 ton seed @\$ 300/ton		6,000	5 Feb 2007
20 Feb 07	Mohd.khan (farmer)	1 ton seed @ \$300/ton		300	20 Feb 2007
27 Feb 07	Idrissa Ali (farmer)	2 ton seed @ \$300/ton		600	
TOTAL				9,900	

(iii) Purchase ledger (e.g., seed purchase ledger)

The purchase ledger is the mirror image of the sales ledger. In it, you record all payments to be made against the invoices sent to you by your suppliers, whether or not you have paid for them.

When you pay a supplier's bill, the payment is entered in the purchase ledger, the supplier's invoice is marked as "paid" and the payment is entered in the cashbook.

As with the sales ledger, the purchase ledger reminds you about those suppliers you owe money and how much you owe at any one time. Any supplier you owe should remain on the purchase ledger until payment is made. Each time a payment is made, this payment should be noted in the "date invoice paid" column. The purchase ledger also gives you a record of your most regular suppliers and how much you have spent with them.

A purchase ledger should record the following:

Date invoice received	Name of supplier	Description of purchase	Invoice number	Amount (\$)	Date invoice paid
1 Jan 07	AFC Ltd 100 bags	DAP fert. @ \$10/bag		1,000	1 Jan 07
15 Jan 07	AFC Ltd	100 bags Urea fert. @ \$10/bag		1,000	15 Jan 07
8 Feb 07	City store 15 reams	Paper @ \$20/ream		300	
TOTAL				2,300	

(iv) Wages book (if you employ workers)

If your enterprise employs workers, you will need to keep a record in the wages book of all wage and salary payments made to them including any allowances if necessary. Keeping a detailed record of payments made to your workers will help you to easily answer any financial queries they may bring forward.

The wages book should list all workers, the number of days they work, how much you pay per person per day and the total amount paid to each worker in a given period. This kind of information will be useful in knowing how much you spend on labour in relation to your needs and hence will help you in planning labour use in the future.

A wages book should summarize the following:

	Period: 1-10 February				
	Name of worker	Job	Days worked	Pay per person day (\$)	Total pay (\$)
1	Abdul Qadeer	Book keeping	10	5	50
2	Mohd. Younus	Quality Assurance	10	5	50
	TOTAL		20	5	100

Other records worth keeping

Depending on the extent you want to organize transactions in your enterprise, you may wish to keep other records. The following are additional records that many seed enterprises keep:

- **Stock or inventory record**

The Inventory record or ledger registers the type of seed, quantity in stock and its cash value. This information is one of the most useful records for checking and verification, since you can easily see every change that has been made to your inventory. You can see the date, the type of

movement that has occurred, the store receipt or issue number, the quantity of seed that came in or went out, and the total balance that has remained in the store and what is its monetary value. A store receipt or issue voucher is used to support the entry in the inventory ledger and is to be retained for the purposes of checking and verification.

BIN CARD				
Crop: _____				
Variety: _____ Bag Size (kg): _____				
Date	Receipt or Issue Voucher number	Received (Bag)	Issued (Bag)	Balance (Bag)
15-6-07	001	100	-	100
20-6-07	002	800	-	900
22-6-07	005	-	500	400
30-6-07	003	1000	-	1400
1-7-07	006	-	200	1200

▪ Fixed Asset Register

It is good practice to keep a record of fixed assets acquired by the enterprise. This register should record the following:

Description	Item number	Date purchased	Purchase value	Remarks
Tractor	001	1 Jan	10,300	New
Thresher	002	1 Jan	200	Used
Seed Drill	003	1 Jan	500	New
Seed Cleaner	004	1 Jan	80,000	New
Transport Van	005	1 Jan	10,000	Used

Motor Vehicle Logbooks

A motor vehicle logbook should identify business and private trips including the distance (kilometers) traveled and destination. For the purposes of transportation, details about the goods (e.g., number of bags of a particular seed or fertilizer carried) should be entered into the logbook. So too will be the quantity (liters) of fuel or lubricant purchased. An appropriately kept logbook is a good way of accurately determining the business proportion of the overall vehicle expense incurred.

Date	Location		Purpose	Km			Load	Fuel		Signature
	From	To		Start	End	Total		Litre	Total cost (Afs)	
15-7-07	A	B	Sales mission	15,000	15,200	200	50 bags cleaned wheat seed	100	3,500	
16-7-07	C	D	Sales mission	15,200	15,600	400	20 bags cleaned wheat seed	0	0	
17-7-07	D	A	Raw seed transport	15,600	16,200	600	40 bags raw wheat seed	20	700	

Managing your financial resources

Effective management of your financial resources depends on:

- How you acquire and use your financial resources?
- How you protect your financial contribution in the business from various kinds of risks?
- How you evaluate new investment opportunities?
- How you follow-up changes in the financial environment including policy changes

A key financial function in your enterprise is to prepare financial statements such as:

- Profit & loss account (income statement)
- Balance sheet (opening and closing balance sheets to show the levels and changes in your assets and liabilities)

Why make financial statements?

Financial statements provide indicators for assessing the performance of your enterprise including the following:

- **Profitability**

This is a measure of how efficient your enterprise is in using its resources to generate net profit or net income.

- **Liquidity**

The ability of your enterprise to meet its financial obligations when they come without disrupting normal business. For example, you need enough working capital or money to buy inputs and inventory after you have settled all other short-term obligations.

- **Solvency**

This is the ability of your enterprise to cover its financial obligations if all assets of the enterprise were sold.

Uses of your cash flow

The cash you obtain from seed operations may be used for several purposes including:

- Paying debts you owe
- Paying taxes due
- Keeping as profit
- Distributing dividend to the enterprise members
- Saving for re-investment

Why hold cash in your enterprise?

The following are some reasons why you should hold some minimal amount of cash in your seed enterprise:

- to pay for ongoing transactions including any debt due
- to meet unexpected disbursements

What are good cash flow management practices?

- Speed up your cash inflows whenever possible
- Delaying paying cash obligations until they are due and necessary
- Invest any surplus cash to earn some rate of return.

- When necessary, borrow cash on the best possible terms.
- Maintain an optimal level of cash that is neither too much or too little.
- Keep a flexible workforce by engaging temporary workers instead full-time staff as necessary.
- Maintain a flexible purchasing practice such as renting certain items instead of buying them when necessary or ordering items during out-of-season when prices are low
- Liquidate inventory if it is not moving instead of keeping it and incurring storage costs or the risk of deterioration in quality

Performance monitoring and evaluation

The primary purpose of preparing projections for income, expenditure and cash flow is to use these on a regular basis as tools in managing your business. You use them to measure if achievements made by your enterprise are according to planned expectations. In this way you will be able to assess on a regular basis whether you are moving in the right direction or not.

For your business to run well, you need to look and plan ahead and regularly monitor key performance indicators such as the volume of unsold seed stock, the level of sales, the pattern or regularity of sales, the quality status of your seed, the magnitude of fixed costs, the amount of cash customers owe you, and the magnitude of profit or net margin.

You need to check whether what you are achieving is in line with your planned targets. You must be able to explain any deviations from your planned performance targets and be in a position to take corrective action if necessary. The following are potential problems that may arise and corrective responses that could be taken:

PROBLEM	CORRECTIVE ACTION
Net margin falling too low	Review any discounts you may be offering customers.
Demand rising for a particular variety	Devote more land and resources to that variety
Cash flow may not meet costs.	Chase customers with high debts
Proportion of fixed costs rising.	Check if certain fixed cost items are needed.

To take appropriate action, you need to have access to the right kind of information that is accurate and available on time. Regular monitoring and evaluation can help you in identifying the strengths and weaknesses of your enterprise. In evaluating success, you must be able to clearly show that your enterprise has been making improvements with time. For example, a steady growth in volume of sales and margins, and improvement in seed quality can be clear indicators of business success.

Every business should formulate a work plan before the start of each cropping season. This plan will be used as a guide in regular monitoring.

Sample plan

ACTIVITY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Land preparation									■	■		
Sowing										■	■	■
Harvesting and threshing						■	■	■				
Field inspection				■	■	■	■					
Seed procurement from growers						■	■	■				
Processing and storage							■	■	■	■		
Seed testing and certification								■	■	■		
Field days					■	■	■					
Seed marketing				■	■	■	■	■	■	■	■	
Training and planning	■	■	■									

Exercises and discussion points

1. Make a sketch of the organizational structure of your seed enterprise and specify the functions the different members perform within the organizational structure. Do you think this structure is suitable for your enterprise? Would you prefer another structure? If so, which one and why?
2. Do you think it will be a good idea to periodically change the group leader of your enterprise? Give reasons for your answer.
3. Specify which business record you will refer to verify the following:
 - all money that comes into and goes out of your business
 - the quantity of seed in store on a particular date
 - the customers that owe you money for seed they have taken on credit
 - the suppliers that you owe money at a particular time
 - the amount of private goods transported and the distance traveled
 - the number of tractors you have and their purchase price
4. Design a year work plan for your enterprise for the most important crop. What would you do during the period when your enterprise is least busy?

Notes

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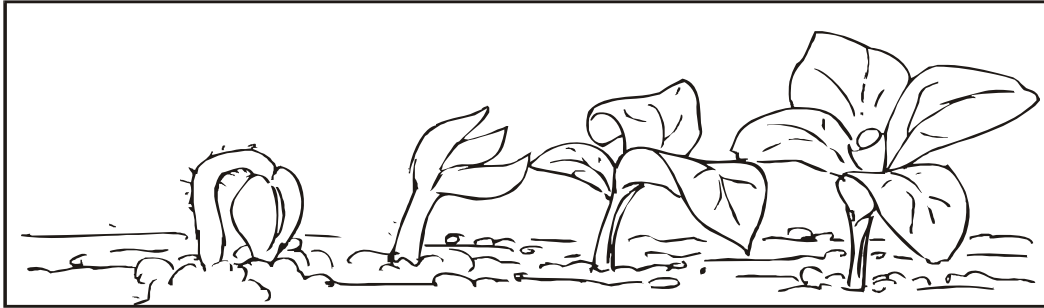
CHAPTER 10

Looking to the future

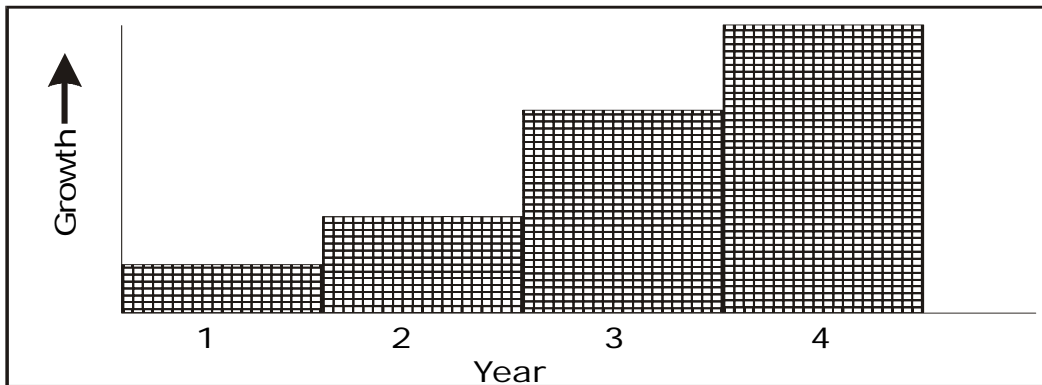
In looking to the future, you need to ask yourself some critical questions such as: “Where would I like my seed enterprise to be in three or five years from now?” and “What do I want to be doing by that time?” Attempting to answer these questions will help you to look ahead to the future and see how your short-term action plans fit into your longer term view.



When you start a new seed enterprise, you would want to see it survive and grow. Remember that your enterprise will take time to develop and grow. It will go through stages of development similar to the seed that the farmer plants in the ground. He must prepare the soil and make sure the conditions are right before he plants the seed. When he plants the seed, he doesn't expect it to produce a crop the next day. Instead he gives it water and nutrients (such as fertilizer) at the right times. He watches it and looks after it carefully, and the seed in its own time will grow steadily into the crop it is meant to be. Then, and only then, will the farmer harvest his crop and get benefit from it.



The growth of your seed enterprise follows a similar pattern. You have to exercise patience while your enterprise goes through the planting, watering and fertilizing stages until the time comes when you'll be able to harvest a good crop after all the hard work you've put into it. You need patience and cannot rush this gradual process of business development.



Let us look at the following key stages in the growth of a seed enterprise.

STAGE 1: Start-up

What are the key characteristics of this stage?

At this stage, you have thought about and started your enterprise. It is now registered and exists legally as a private enterprise. You have selected your growers and

they have begun seed production on their farms. You have not yet sold any seed, and for your cash needs you will therefore depend on money contributed by members, loans given by banks, or grants provided by aid agencies.

What do you need to do at this stage?

Decide on your organizational structure.

- Find professional advisors.
- Do comprehensive business planning.
- Identify your first potential customers and establish a customer base or niche market.
- Make your presence felt in the market place through good promotional methods.

What will be your main challenge?

To conserve your cash flow and not waste the little cash you have. Be realistic in what you do and keep checking to see that your business is on the right track.

STAGE 2: Survival

What are the key characteristics of the survival stage?

Your business has made it through the first few years. Your revenue is increasing steadily and your customer base is growing. Profits are yet small but there are new opportunities to explore.

What do you need to do during the survival stage?

- Build on the success you have already made.
- Seek a larger market share for your seed.
- Use appropriate marketing strategies to reach your customers because to survive you need revenue; in order to get revenue, you need customers; and in order

- to have customers purchase your seed, you have to first reach them through your marketing efforts.
- Maximize revenues by collecting payments in a timely and efficient manner such that cash flow becomes more favorable.

What will be your main challenge?

One of the primary reasons why enterprises fail may be due to cash flow problems when future revenues cannot offset expected expenditures. The question arises how you can collect outstanding payments in quicker and more effective ways? Make options available. For example, bigger and more reliable customers can give you cheques or transfer funds into your bank account, while smaller customers pay cash.

STAGE 3: Growth

What are the key characteristics of the growth stage?

Your enterprise has now become established and is doing well and has a place in the market with some loyal customers. Your seed sales are growing. There are opportunities for new sources of money such as joint ventures, banks, and new partners or members.

What do you need to do during the growth stage?

- Diversify into new crops so that your existing business can expand into new markets and customer types.
- Establish new distribution channels as you move into new markets.
- Effective management is required at this stage, so you may need a new business plan.
- Hire new staff and train them as your business grows.
- Set up better accounting and management systems.
- Run your enterprise in a more formal way in order to deal with increasing sales volume and customers.

What will be your main challenge?

Watch out for new competitors, stay focused and look for new opportunities. The needs of your customers may change. You need to anticipate this possibility and adapt to it in time to avoid being taken by surprise and driven out of business as a result. You will require better business practices and skilled staff to compete in an established market and improve your productivity level.

How can you maintain successful growth of your enterprise?

A successful enterprise is one that maintains steady seed sales and positive cash flow. But, you need to move forward to reach new customers and new markets. To maintain success, you must strengthen your marketing position for opportunities of expansion. Use marketing tools such as diversification (new products), competitive pricing, expanded channels of distribution, and targeted promotional campaigns.

What methods or strategies should you use to expand your business?

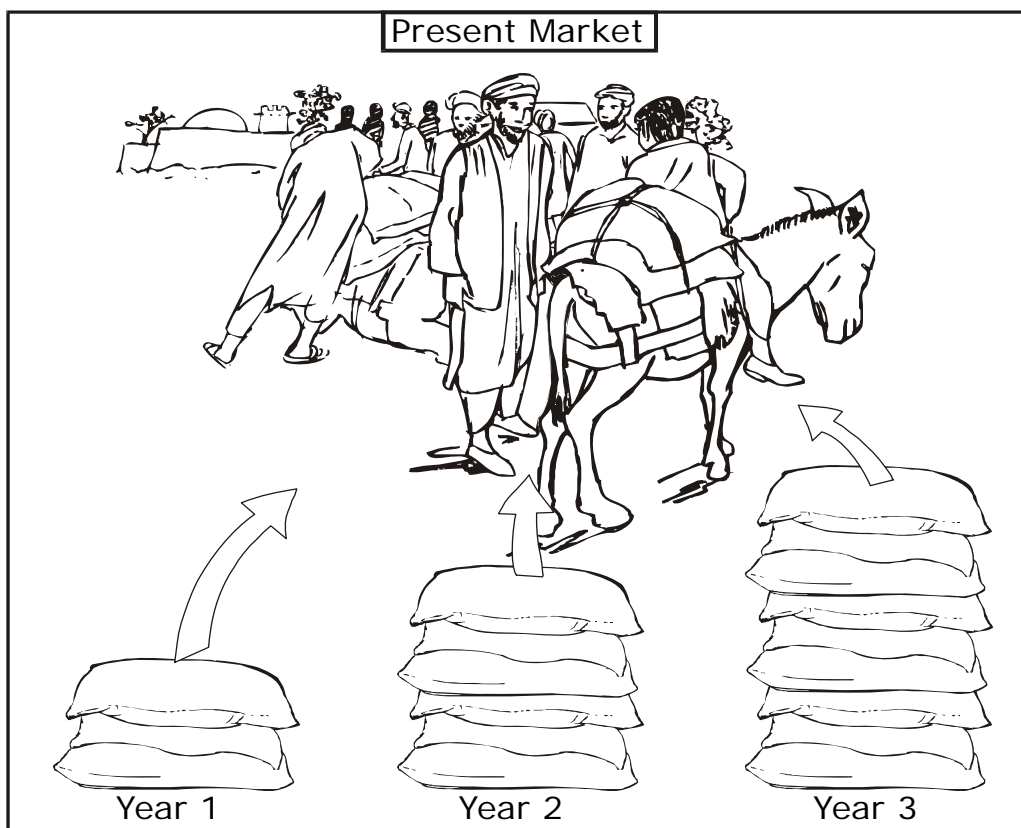
Business expansion primarily means exposing your business to many more customers. The key to successful growth is to choose the expansion method that best fits the strengths and weaknesses of your group and the limitations of existing resources including cash. Four ways in which you can expand your seed business are summarized below:

	PRESENT MARKET OF FARMERS	NEW MARKET OF FARMERS
SEED OF PRESENT CROP	1. Market Penetration	2. Market Development
SEED OF NEW CROP OR ANY RELATED PRODUCT	3. Product Development	4. Diversification

1. MARKET PENETRATION

With this method, you are looking to increase sales within your present market. Your objective is to sell more, so you find ways in which you can get your current customers (farmers) to buy your seed more frequently. You can also penetrate the market by attracting customers away from your competitors. Methods you could use to increase market penetration will include:

- Promoting new end-uses of your present varieties (e.g; value added food processing).
- Increase the availability of varieties or seed (e.g; better delivery systems).
- Make your seed more price/quality competitive.



2. MARKET DEVELOPMENT

Now you want to sell seed of your present crop in new markets. The aim of new market development is to reach new customers. This means that you have to go beyond your present village or location to look for the new customers. Another way may be to try a new marketing method. For example, if you were just selling in your local village bazaar, you may want to send your seed to dealers in surrounding villages.



Another method you may consider in your attempt to reach new customers is market segmentation. This method will help you to target your seed at specific group of buyers within your new market area.

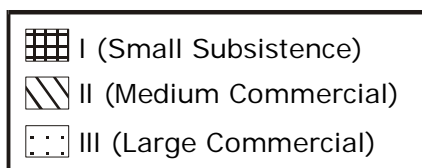
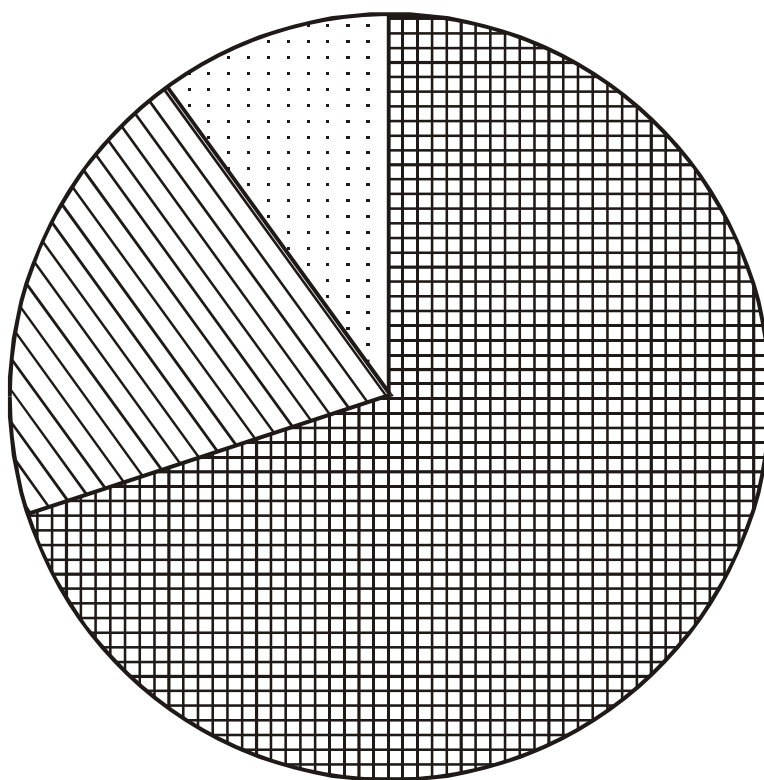
With market segmentation, you divide your seed market into distinct groups of farmers (buyers) who might, for example, require seed of specific varieties or certain methods of delivery directed to them. To do so, you need to know which perceptions, preferences and characteristics of buyer behavior or choice differ across the farmer groups. For example, consider the following market segments for wheat seed in a certain community of farmers made up of three segments.



Segment 1
(Small Subsistence)

Segment 2
(Medium Commercial)

Segment 3
(Large Commercial)

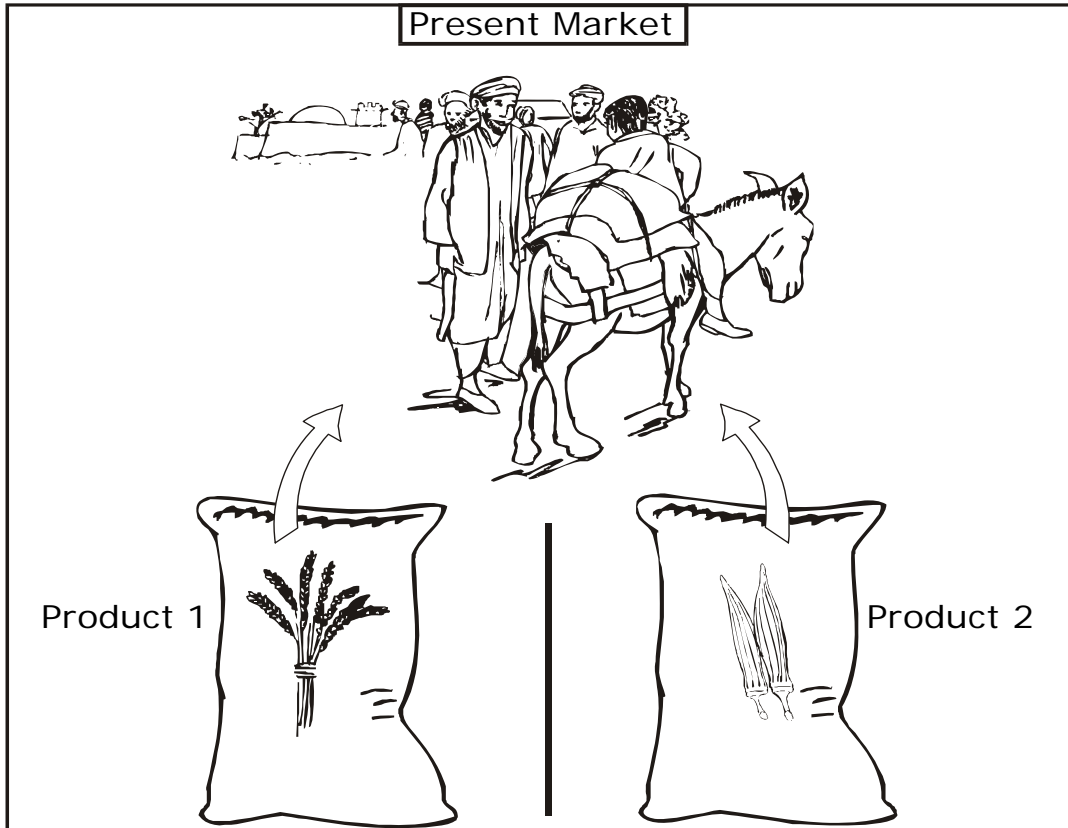


Characteristics	Segment I	Segment II	Segment III
Main benefits sought	- cheap seed - source nearby - credit for seed and other inputs	- responsible price - seed anywhere - inputs available for cash purchase	- price not important - seed anywhere - want only seed, has other inputs
Purchasing power	Weak	Reasonable	Good

Methods 1 and 2 (market penetration and market development) are the quickest ways to expand your business because all you will be doing is to encourage more farmers to buy seed of a crop you are already familiar with and have been selling. The next method (product development) may mean more risk for your business.

3. PRODUCT DEVELOPMENT

Using this method, your business will grow by offering seed of a new crop or another related product such as agri-chemicals. There is a risk here that your present market may not want your new product but still prefer what they have been used to.



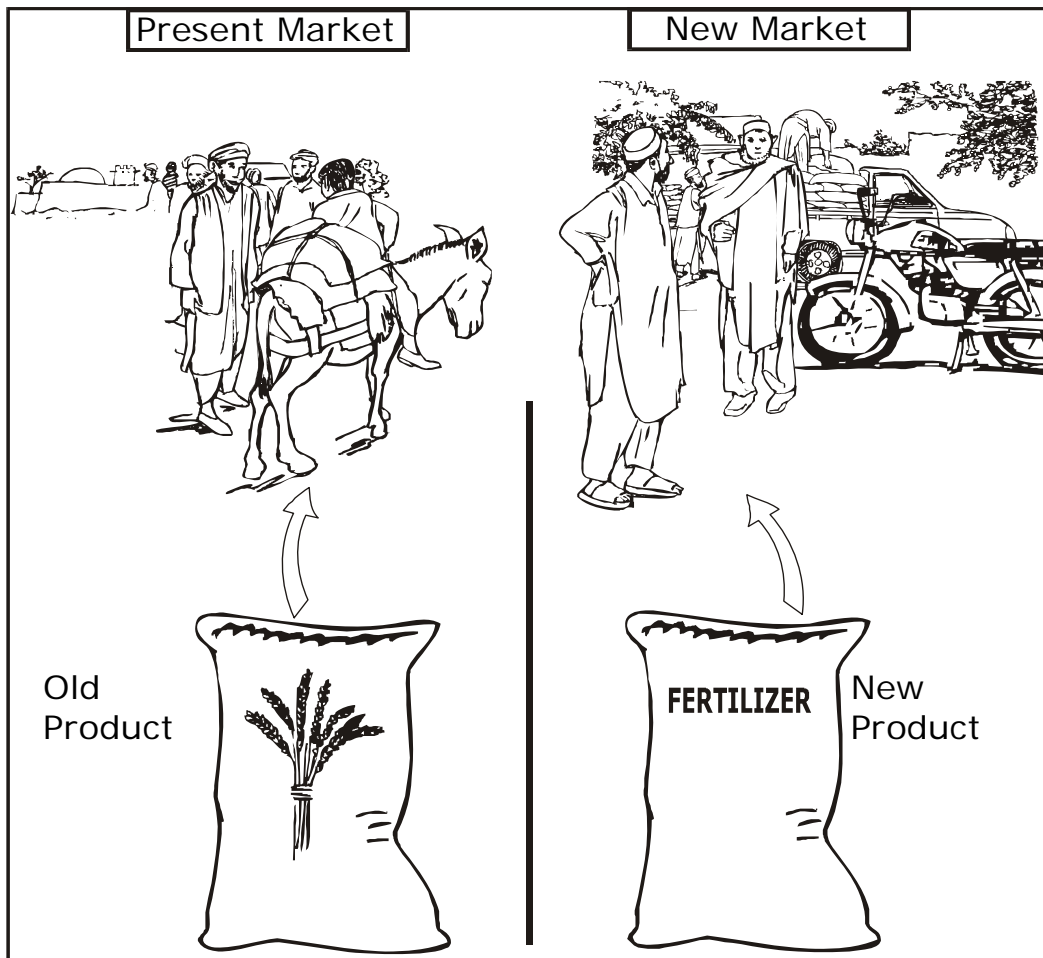
The fourth method (diversification) will be associated with the greatest risk

4. DIVERSIFICATION

Using this method you will be moving your business in a totally different direction. The risk will be greatest, since

you will not only be dealing with a new crop or product, but new markets as well. Therefore, your knowledge and experience in dealing with the new crop, product and markets may be at an early stage, thus creating a higher degree of uncertainty.

In conclusion, it will be better at the early stages of your enterprise to try the first two methods of market penetration and development. As your experience grows and you become more confident, you can then look upon the other expansion opportunities involving product development and diversification.



Join Forces for Survival and Growth

There is strength in numbers and it will be a good idea for your enterprise to join forces with other thriving seed enterprises in your area. One way of doing this is forming a seed producers' association. Seed enterprises form associations to help themselves survive and grow, to share common interests, to network with each other, and to attract customers. Seed Producers' Associations can also provide their members with certain services including business education and training opportunities through workshops, conferences and trade shows.

An important way in which producers' associations can serve their business members is advocacy. Effective advocacy can help remove barriers in situations where inappropriate laws and regulations make it difficult for seed enterprises to survive and prosper.



Associations that advocate effectively do the following:

- Express members' concerns in a unified voice that quickly attracts the attention of policymakers.
- Maintain close working relationships with government authorities.

- Communicate effectively with policymakers so as to influence laws and policy proposals in the interest of their members

Collective action can hold the key to business survival, growth and prosperity. Individual enterprises can rely on the advocacy power of their associations for improvement in the business climate, access to relevant information, and protection against external forces that may act as barriers to business development.

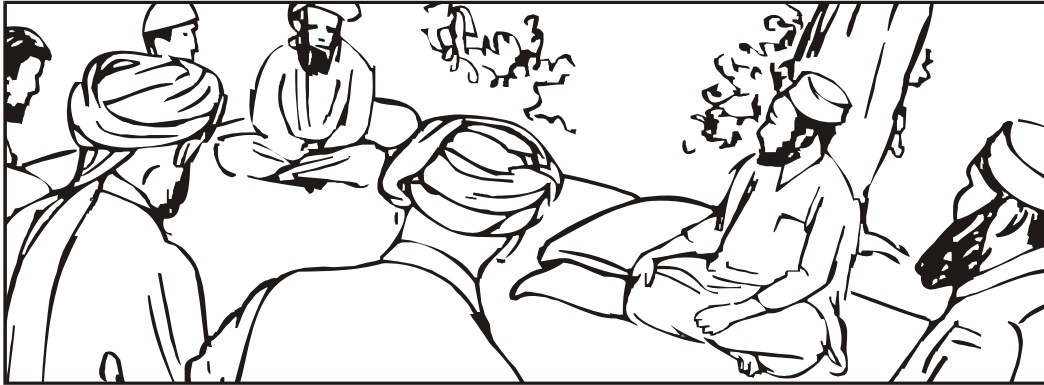
Steps in Forming a Seed Producers' Association

Seed associations can exist at different levels: regional, national and international levels. For example, seed associations representing different regions of a country could all be members of one national seed association, which in turn could belong to a broader international association such as the Central Asia Seed Association.

The following are suggested steps that could be followed in forming a seed producers' association at the regional level in a country, beginning with the sharing of ideas in a small group, motivating more interest and expanding membership until a formal organization is formed that is guided by legally binding rules and regulations.

Step 1: Share ideas in informal initial meeting

To begin with, convene a preliminary meeting to share the idea of forming a seed producers' association with a small group of key interested producers. At this meeting, have open and frank discussions on the need and advantages for an association, and give everyone the chance to express their views. If enough interest exists, then arrange for a second meeting and invite representatives from all seed enterprises in your region.



Step 2: Select provisional committee for preparing by-laws and guidelines

This next meeting should be more structured and well organized such that all persons present are encouraged to participate actively. It would be useful to have an experienced outside person such as an extension agent or agency officer to chair and guide discussions at this meeting. The main outcome of the meeting should be the election of a provisional management or steering committee of about 7 committed persons, who will be given the task of developing by-laws and guidelines for the proposed association on the basis of consensus. The committee would organize subsequent meetings amongst themselves to prepare draft terms for discussion at an organizing meeting. The committee would use the existing by-laws of the various existing enterprises as a basis.

Step 3: Hold an organizing meeting to finalize the by-laws

Stimulate attendance at this organizing meeting by combining it with an attractive educational programme such as field day. At the organizing meeting, discuss, amend and finalize the proposed by-laws and guidelines, and agree on membership fees.



Step 4: Register the association formally

As in the case of individual seed enterprises, the seed association should also be formally registered with the relevant national authorities once the by-laws have been agreed upon. As soon as all registration formalities are completed, the new association should consider organizing its inaugural meeting.

Step 5: Organize an inaugural meeting

At the inaugural meeting, the provisional management committee will present a report on all the activities it had carried out and the members will resign their provisional positions at this stage. The inaugural meeting will then approve and accept the draft by-laws and elect its first management or executive committee members as specified in the provisions of the by-laws.

Step 6: Plan activities for first year

The Association's activities in its first year would include

effective communication through a newsletter and press releases, increased membership drive and awareness creation, periodic management or executive committee meetings, and an annual general meeting.

With time, the seed associations will shape the future of the seed industry as all stakeholders including seed producers, dealers, farmers and policy makers become associated in one way or another with these associations both at the regional and national level.

Exercises and discussion points

1. Do you think your company would survive and do well in the long-term if it sells seed at the same price to all categories of customers? Explain your answer and show which pricing strategy you think would work best in your community.
2. How many years do you think your enterprise would take to go through each of the three stages: (i) start-up, (ii) survival and (iii) growth? Explain and give reasons for your answer.
3. Would your enterprise like to join forces with other producers in your region to form an association? What do you think would be the advantages and disadvantages of belonging to such an association?

Notes

Summary and conclusions

A thriving agriculture needs quality seeds of good crop varieties and these made available to farmers through successful seed enterprises. The success of enterprises in producing and marketing quality seed to farmers and making money depends on certain basic principles including the following:

- Bringing together disciplined hardworking enterprise members with talent and good skills.
- Making good business plans before starting seed enterprises.
- Selecting those crops and varieties that farmers desire and for which they are willing to buy quality seed.
- Running seed enterprises through proper planning, careful preparation and good organization.
- Understanding and using cost-effective methods so as to sell seed at competitive prices and generating reasonable profit.
- Following strict quality assurance procedures in producing the best seed possible.
- Promoting varieties and seed vigorously to farmers and maintaining good after-sales service.
- Using effective organizational arrangements, leadership and teamwork, as well as keeping good business records.
- Looking to the future with optimism and exercising patience while the business grows through the critical phases leading to full maturity.
- Joining forces with other enterprise groups to gain strength in numbers and better bargaining power.

The best enterprises will eventually survive and grow and will shape the future seed industry and agriculture in the country.

Glossary

Afs

The Afghan currency called Afghani.

Asset

Anything of value owned by a business.

Balance sheet

A summary table of assets and liabilities of a business at a specific point in time, usually the last day of the financial year. In the balance sheet, the total value of assets must equal the total value of liabilities.

Break-even analysis

An analysis of the relationship between total cost and total revenue, such that break-even takes place when total cost equals total revenue.

Breeder Seed

The seed of new varieties produced by research stations. From its cultivation comes foundation or basic seed, which is generally the first generation made available for multiplication by the commercial sector.

Capital

Investments in items such as machinery, equipment and buildings (capital goods) and in education and training (human capital), which are used to contribute to productive activities. Capital also includes money secured by the business as loan.

Cash flow

Movement of funds through the business in the form of receipts and payments over a defined period.

Certification

A system of maintaining quality of seed according to official standards specified by an agency set up for this purpose. The agency makes several inspections to ensure these standards are met.

Certified seed

The first generation of seed from an official multiplication process, which is made available to farmers for normal grain production.

Contract grower

A farmer who grows seed with formal agreement and on commission for a larger organization.

Creditor

The party to whom a debt is owed. In the case of a loan, the lender is the creditor.

Debtor

The party who owes a debt to the business. In the case of a loan, the borrower is the debtor.

Demand

The need or desire for a good or service, which the customer can afford and is willing to pay for.

Depreciation

The amount of money kept aside each year as a fixed cost to represent the loss in value of a fixed asset with the passage of time.

Disburse

To pay out money from a fund in settlement of a transaction.

Distribution channel or mechanism

The route or means used to distribute a good from the producer to the consumer of that good.

Economies of scale

Factors which cause the average (or unit) cost of producing a commodity to fall as output of the commodity rises.

Enterprise

One or more easily identifiable parts of a business under common ownership or control, for which there are specific potential returns.

Enterprise diversification

A situation in which a business holds a combination of investments or enterprises as risk reducing strategy.

FAO

Food and Agriculture Organization of the United Nations.

Gross Margin

Value of an enterprise's output less its variable costs.

Hectare (ha)

An area measurement equivalent to 10, 000 square meters.

Improved variety

Variety bred by breeders by incorporating superior genetic characteristics leading to high yield potential and agronomic attributes such as resistance to biotic and

abiotic stresses. Seed of such a variety is commonly referred to as improved seed.

Inventory

The quantity of goods or material on hand (e.g., stock of seed in store)

ISTA

International Seed Testing Association.

Jerib

An area measurement equivalent to 2,000 square meters or 0.2 of a hectare.

Liability

Total value of claims on the assets of a business by the various parties who supply funds to it.

Liquidate

To do away with assets by converting them into cash

Liquidity

The ease with which an asset can be converted into money. It is therefore a measure of the ability of an enterprise to meet its financial obligations as they come due without disrupting normal business.

Lot (Seed Lot)

A uniform batch of certified seed of a particular variety and crop from which a sample is drawn for certification. The maximum lot size for cereals is 30 tonnes as specified by ISTA rules. For greater accuracy, the maximum lot size for wheat in Afghanistan is currently 5 tonnes.

Marketing margin

The difference between the value of an equivalent unit quantity of good at one stage and another in the distribution chain.

Net Worth

Value of assets available to the owner of the business after all other claims against these assets have been met.

NGOs

Non-Governmental Organizations. These are usually not for profit making (charitable) organizations by statute.

Open pollinated varieties

These are varieties produced as a result of natural pollination as opposed to hybrid varieties, which are a result of controlled pollination.

Output

The value of goods and services produced by an enterprise.

Overhead costs

Indirect costs such as depreciation, rent, supervision salaries and other administrative costs, which cannot be associated directly with specific units of final output.

Private sector

Commercial sector made up of privately owned enterprises of varying sizes, which may not have close relations with public sector operations.

Privatization

A process of promoting private sector participation in an economy. It involves the introduction of market forces to facilitate free trade and the conversion of government enterprises into private companies.

Profit

Surplus remaining in the business after all costs have been met (i.e., total sales revenue minus total costs). If there is a deficit, this is called a loss.

Profit and Loss Account

A record of financial transactions and the resulting enterprise profit or loss for the financial year. It includes an opening valuation of stock, the costs and revenue for the same period and the closing valuation of stocks at the end of the financial year.

Public sector

State-owned, non-commercial institutions and enterprises.

Risk

That part of uncertainty that could be measured.

Roguing

The process of removing by hand plants that do not appear healthy or sufficiently characteristic of the variety being grown for seed.

Sensitivity Analysis

An analytical technique to test systematically how output or earning capacity of an enterprise would be affected by specific changes in some key variables.

Salvage value

Also called residual or terminal value. This is the value remaining in an asset at the end of a project or at the end of its economic life.

Solvency

This is the ability of your enterprise to cover its financial obligations if all assets of the enterprise were sold.

Uncertainty

The state of not knowing what the exact outcome of an event would be

Variable Cost

Costs which can be readily allocated to a specific enterprise and vary in approximately direct proportion to changes in the scale of that enterprise.

Working capital

Working capital or current asset is an item of value, which is held to be converted to cash within a short time, usually within a year. It is also money held in an enterprise for the purchase of inputs and inventory after all current liabilities have been paid. Inventory items held in anticipation of future sales (for example, seed in store) can be classified as working capital.

Yield potential

The theoretical maximum yield which a variety is genetically capable of giving, as usually determined under optimum conditions in a research station.

