

REPORT: HONEY BUSH TEA

CHAPTER ONE INTRODUCTION

1.1 Background

World markets have become open-minded, globalisation is increasing and international competition is rising, and the need for substantiated qualitative and quantitative information increases. This applies especially for those products for which the market is either booming already or for which market potentials are high. Such products are basically found in the food and pharmaceutical area, as these sectors still grow much faster than related markets such as industrial chemical areas *etc.* Tea, for example, has become an ever more popular beverage in the Western world and especially health teas that have come to fame with recent scientific findings on their benefits as having medicinal properties. These are increasingly publicised in the media and heavily promoted in magazines devoted to specific target groups.

In the Western Cape, the growing popularity towards natural products like honeybush tea is because of their potential to economic development, in terms of job creation, income generation, export earnings, value adding, counteracting demand in the northern hemisphere, *etc.* With regard to honeybush, although an ancient product, it is only recently that it went to commercialisation and appeared on the market shelves, and hence treated as a new comer (Wesgro, 2001). Therefore, production of honeybush since it is a new crop carries large risks at this moment. This emphasise the need for research and extension efforts that will reduce the risks inherent with the adoption and commercialisation of it as a new crop.

However, production and post-harvest trials by a few institutions and specialists are still underway as even a few hectares that are planted, have not been in production long enough for the results to be finalised at this stage. These trials are producing scientifically based results that can begin to round out our knowledge of how performance varies under varying environmental conditions, cultural and management practices. However, this knowledge needs to be complemented by a more systematic

understanding of production costs and returns studies, and assessments of market trends.

With this information altogether we would have a more total package of information to inform the decision-making of small and large-scale operators. Market related issues and production costs and return information are among the top issues identified by the industry. These issues are particularly critical for new or specialty crops, because unlike other well-established commodities, information is limited at its best. Hence, the South African Honeybush Tea Association requested the Department of Agriculture to conduct a study on the economic analysis of honeybush tea.

The study will give a brief overview of the black tea market focusing on both demand and supply issues. The reason being that although honeybush is a health tea, it still faces competition from other teas that serve a similar purpose and hence trends particularly in the black tea market are of importance. As new products are being introduced and more competition arises, profit margins will be affected. Thus, there is increasing need to study the economic efficiency of honeybush. For this purpose, a number of farm management tools such as gross and net margins are used in this study.

An effort will also be made to compare different species of honeybush and farming practices (i.e. small and commercial scales). However, it should be noted that the study is not meant to be comprehensive, but should be taken as a contribution or a background to the analysis of the entrepreneur who has the opportunity and or want to invest in the honeybush industry.

1.2 Product Description and Benefits

All honeybush teas are derived from one plant, *Cyclopia* spp. It is the region of origin that mainly determines the variety. “Heuningtee, Bergtee, Boertee, Bossiestee, Bushtea” are some of the many names the tea is called. The indigenous shrub, belonging to the Cape fynbos biome, grows in the coastal districts of the Western and Eastern Cape Provinces, from Darling to Port Elizabeth, being bounded on the north by the Cederberg, Koue Bokkeveld, Klein Swartberg, Groot Swartberg and Kouga

mountain ranges. These are the only places where honeybush grows (www.montegotea.com).

For marketing and statistical purposes, the processing method after harvesting plays a very important role as it distinguishes the tea according to different categories which are discussed in forth coming subsection.

1.2.1 Botanical description of honeybush

Honeybush (*Cyclopia* spp) is an indigenous plant to South Africa, and is well known for its pleasant taste and flavour. It is expected to have approximately 24 species that are endemic to the fynbos region of South Africa. From this, only *Cyclopia intermedia* (“bergtee”), *Cyclopia subternata* (“vleitee”) have found limited commercial applications. But it is known that the *Cyclopia maculata*, *Cyclopia genistoides* and *Cyclopia sessiliflora* (“Heidelbergtee”) species have been used for home consumption. Except from the wild, species such as *Cyclopia intermedia* and *Cyclopia subternata* have plantations on both small and commercial scales while *Cyclopia genistoides* is currently available on commercial scale only. Other species, including *Cyclopia meyeriana*, *Cyclopia pubescens*, *Cyclopia dregeana* and *Cyclopia buxifolia*, are currently being evaluated for future commercialisation (www.montegotea.com).

Honeybush tea plants have woody stems, a relatively low ratio of leaves to stems and hard-shelled seeds that germinate poorly if not scarified prior to germination. Leaf shape and size differ within the species, but are mostly thin, needle-like to elongated, broadish leaves. During the flowering period the bushes are easily recognized in the field as they are covered with distinctive, deep-yellow flowers, which have a characteristic sweet honey scent, from which the tea acquires its name.

According to traditional methods the tea is harvested during the flowering period. *Cyclopia intermedia* and *Cyclopia subternata* flower in September/October while *Cyclopia sessiliflora* flowers in May/June. Bushes of the lower yielding varieties *Cyclopia intermedia* are observed to be sustainable when harvested every two years. A year break in *Cyclopia intermedia* is observed to give enough time for the plant to regenerate after harvesting. It is also observed that after a fire, the bushes of *Cyclopia*

intermedia show more growth, have more flowers and often reach one to one and half meters in height (www.healthwisefood.com).

1.2.2 Harmonised System description of tea

Although called red teas, honeybush like rooibos is classified under black tea. Tea is normally classified based on the processing, leaf size and grade. Fermentation is the major process and creates two major classifications, black and green tea. Black tea is further classified into CTC (cut, tear and curl) and Orthodox tea (www.valuenotes.biz/research/teatoc.asp). In other words the red teas including rooibos and honeybush (called black teas in English) are fermented for a few hours while the oolong teas are fermented for a shorter time (see classification below).

Unfermented Tea	Green tea
Partially fermented tea	Pauchong tea
	Oolong tea
Fermented tea	Black tea

With regard to statistics, there are three basic types of black tea. These include, ready-to-brew tea that is packaged for retail sale in containers of 3kg or less, black tea that can be sold as bulk and is unprocessed or blended which can then be processed in the country concerned. Lastly, is instant tea that is used mainly for vending machines or confections. As a result, the study will mainly relate to these types of black tea as also classified in the Harmonised System (HS).

1.2.3 Benefits

Honeybush shares some similar characteristics with rooibos, but differs very in taste and aroma as observed to be more aromatic. It is an herbal infusion and many health properties are associated with its regular consumption as the tea and hence comparable to other health teas. Its potential rely on the following benefits:

- The plant has antioxidants that are known to be potent free radical scavengers. Free radicals are the very unstable compounds that attack DNA, proteins and fatty acids, leading to health problems such as cancer and heart disease.
- Honeybush and Rooibos teas are scientifically proven anti-mutagenics (process whereby the genetic material of a cell is damaged and normally associated with the early stages of cancer as well as the general ageing process). Specifically, these indigenous plants are rich in phyto-estrogens which have been positively linked to a reduction in the risk of developing hormone-related diseases such as breast, prostate and uterine cancer. Phyto-estrogens also help to regulate the menstrual cycle, alleviate symptoms of menopause, prevent osteoporosis, reduce the risk of heart disease, and protect against premature ageing.
- The tea is also low in tannin and is caffeine free, which are significant factors for people who have to avoid stimulants. It is therefore especially valuable for children and patients with digestive and heart problems where stimulants and tannins should be avoided.
- Honeybush has soothing and relaxing effects and have been found to counter headaches, irritability, tension and insomnia and depression.
- It has effective anti-spasmodics and therefore good for people who suffer from stomach cramps. Other stomach ailments such as stomach ulcers, nausea, heartburn and constipation have been found to respond positively to Honeybush.
- Honeybush has significant anti-viral properties and help to build up the body's auto-immune system. Allergic conditions such as hay fever, asthma and eczema respond well to treatment with Honeybush and Rooibos (www.capehoneybushtea.co.za).

1.3 Methodology

The study aims to outline the black tea and eventually honeybush market with emphasis on supply and demand side at both international and domestic market. Secondly, the study determines the costs of production based on the actual and current operations of honeybush. These will be achieved through using various sources of information.

Firstly, the desktop approach is followed particularly for market information where World Wide Web is explored for relevant information. In addition, reviewing available

literature, publications and studies are also used for market intelligence. The technical information for enterprise budget analysis that is presented in this report is obtained by means of interviews with individual farmers and agricultural related institutions involved in honeybush research like ARC-Nietvoorbij and ASNAPP. This data is then quantified and processed in Combud, acronym for Computerised Budgets, to enable economic assessment. Price estimates of chemical inputs were obtained from local suppliers.

The information on the budgets is predicted on a convenient unit of production, which is a hectare for the purpose of this study. The financial model used in this study is based on actual honeybush tea practices in various regions, i.e. Haarlem for information on small-scale and in Albertinia and Riversdale on commercial operations. The end result of this model is the calculation of the unit gross margin and net margin for the selected enterprise for a typical steady-state year. These are discussed in details under economic analysis in Chapter 3.

CHAPTER TWO

DEMAND ANALYSIS

Given the fact that tea is the second most consumed drink in the world after water, one might be tempted to think that future prospects of the world tea market look good. People drink tea for a number of reasons. On one hand, drinking is a basic need for human body that has long been associated with pleasure. One does not drink only to input H₂O (water) in the body cells, but also expects a variety of pleasing tastes and feelings. On the other, consumers are now demanding even more as they require that a beverage must not only taste good, but also do good. In other words consumers, especially in the developed world, expect healthy, functional beverages.

2.1. Consumption by Country

The top tea producing countries such as India, China and the like are also the top consumers. In fact, Datamonitor in 2003 predicted that the Indian tea consumption will outstrip Britain's by 2004. The UK is one of the biggest consumers although not in the group of producers. In the year 2000, Ireland took the first place and was estimated at approximately 4.5kg in per capita consumption, followed by Britain at 3.8kg. Diverging from the European countries, Russia took the third position with per capita consumption of 3.5kg (see Figure 1). In 2001, although consumption took a slide, Ireland was still leading with 3kg, UK (2.4kg) and France (0.2kg). Regarding the German market, there were no changes as consumption remained static and estimated at 0.2kg or 19,760 tons in 2000.

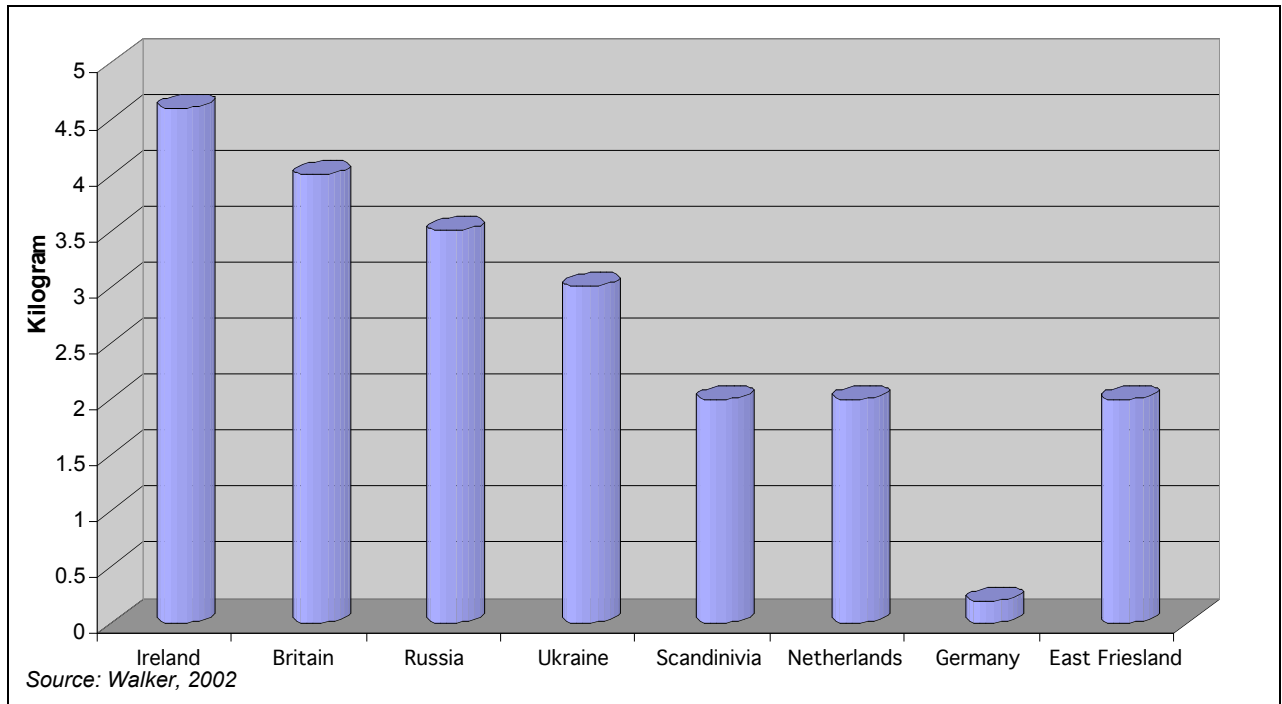


Figure 1 Per capita tea consumption in Europe, 2000

Although not shown in Figure 1, Austria is also among the countries that pose a glooming picture with consumption of quality tea estimated to double in the last 10 years. Similarly, Poland has also a growing consumption and is estimated between 5 and 10% each year. Another positive picture is observed in Turkey with some 2.3 kilograms per capita drunk each year (Datamonitor, 2003).

2.1.1 Market sales by country

Despite the traditional image that Britain holds as one of the world's largest consumers of tea, the country's tea drinking habit is waning. Britain is in fact still the largest tea market in Western Europe, representing 86.9% in overall volume terms and 92.6% of volume sales of black tea. Although in 2000, sales of tea fell by 0.1% and by 2005, total sales are expected to fall from a total consumption of 127,700 tons in 2000 to 117,100 tons. The market has seen a decline in sales of mainstream black tea bags, a slight increase in consumption of green, organic, and fair-trade teas and a growing interest in the fruit and herb segment with honeybush tea benefiting especially in the later segment.

In France, sales of tea grew in the year 2000 by 7.7% and by 2005 are predicted to increase from 14 million litres to 21 million litres, an increase of 8.4% since 2001. Also in Italy, growth in 2000 was 1.8% and total volume is expected to grow from 3,065 tons that year to 3,325.6 tons in 2005, an overall increase of 1.6% since 2001. In Hungary, sales of tea grew by 3% in 2000 to 2,758.6 kilos and are forecast to reach 2,908.9 kilos by 2005, up by 1.1% on figures for 2001. Sales of tea in the Ukraine grew by 4.7% in 2000 and total volume is forecast to rise from 13,400 tons in 2000 to 16,500 tons in 2005 (Pettigrew, 2002). Likewise, in Russia, a fall in sales in 1999 has been reversed and total sales for 2001 amounted to 165,000 tons up by 10% on the 1999 figure.

There have also been shifts in the position of individual European companies in the brand league table. In 1998, Unilever’s Brooke Bond took the lead from Tetley and now tops the list with 27.6% of market share. The other three main brands are Premier International Foods, R. Twinning, and Taylors of Harrogate (Pettigrew, 2002). In countries such as the USA one most popular hot drink used to be coffee, but those days are gone as the tea industry is undergoing a dramatic period of change from that of the 1990s. This can be seen in Table 1 below.

Table 1 Estimated wholesale value of the United States tea industry

Market segments	1990	2002
Traditional Market (supermarket, drug stores & mass)	\$0.87 billion	\$1.80 billion
R-T-D Market (increment only)	0.20	1.85
Foodservice Segment	0.50	0.80
Specialty Segment	0.27	0.58
Total Sales	\$1.84 billion	\$5.03 billion

Source: Simrany, 2002

In 2003, the US tea industry still presented a promising image as tea consumption continued to grow in both volume and value terms. US tea retail volume sales grew by an estimated 1.3% in 2003, and by 10.3% between 1998 and 2003, to 32,794 tonnes. In 2003, current value sales gains exceeded those in volume with increase estimated at 4.2% from 2002, and by 28.3% from 1998.

2.2 Consumption per Product Category and Opportunities

The consumer trend towards health and convenience is underlined by the ongoing rise of herbal products that led to new terminologies and or segments such as nutraceuticals, enriched, energised etc. Consumers appear to be turning to more flavoursome or healthy alternatives consumption of which increased by almost 50 per cent between 1997 and 2002. These trends are observed in various industries that use herbal products in different applications and in different forms and these will be highlighted in this section.

2.2.1 Instant teas

In 1997, British consumers bought 127 million kilograms of normal teabags, but by 2002, consumption had decreased to 114 million. But coffee, perhaps the most natural alternative to tea, is not filling the gap either as instant coffee sales are falling, and even sales of ground coffee fell in 2002. Nevertheless, Britain is not the only country where hot beverage consumption is undergoing something of a revolution.

Instant tea sales all over the world appear to be in decline according to Datamonitor. One exception, however, is decaffeinated tea sales which fell even faster than regulars. According to Datamonitor, 2003 *"it's more about image, as a stereotypical decaf drinker is perceived as a recovering caffeine addict, while a stereotypical flavoured tea drinker is perceived as 'stable', 'modern' and 'with it"*. Convenience, which is one of the assumed trends behind instant tea consumption, is also playing a less important role in this category.

Also in Japan for example, where instant tea has long been popular, sales dropped severely by over 6 per cent a year between 1997 and 2002 (Datamonitor, 2003). However, consumers may have shown some resistance to instant teas in the past, mainly because of their inferior taste and aroma. Marketers believe that Instant Rooibos and Honeybush products could change all this by capturing the enigmatic taste and flavour so characteristic of these two South African brews (Snyman, 2000). In other words, this means an opportunity for honeybush to be used in blending as it can give beverages a unique taste and flavour.

2.2.2 Soft drinks

According to Euromonitor's report in 2002 the world market for soft drinks, May 2001, experienced an explosive growth especially in functional drinks. The functional category recorded an annual average growth rate of about 10% between 1995 and 2000. This is believed to be spurred by spots nutrition and media influence. Although the terminology is therefore not yet established, varying according to the sources of information. Some include enriched drinks, nutraceuticals drinks, herbal drinks, sports and energy drinks, whereas the others can only focus on the last two categories.

Within the soft drinks market, functional drinks show the highest growth even though they account for 3% of the total soft drinks volume. This tendency is expected to speed up in future putting total forecasts for 2004 at 14 billion litres of functional drinks. The evolution of functional drinks varies from one region to another. The Asia Pacific Region including Japan, is the biggest market size, but records the smallest progression. The US market is still expanding at a rate above 10% per annum, whereas the European market is booming, with 15% growth between 1998 and 1999, although from a small volume basis. In world market share per category, enriched drinks come to the first position in most regions of the world, except in Japan, where nutraceuticals drinks dominate.

➤ Enriched drinks	30%
➤ Nutraceuticals drinks	21%
➤ Energy drinks	15%
➤ Herbal dinks	10%
➤ Sports drinks	9%
➤ Other functional drinks	12%

Despite the above terminology and the fact honeybush tea being a pleasant warm drink, it also has the features to be competitive in the ice tea market. This is one tea based drink that is experiencing an increasing popularity already. In 2001, the UK alone sold 14 million litres despite the poor summer weather they had during that period (Datamonitor, 2003). Datamonitor also stressed that even if ice tea in Europe is

experiencing a tremendous increase in consumption, it is unlikely to reach the dizzy heights of the US, where tea is almost always drunk over ice.

Regarding the ready-to-drink (RTD) honeybush, it is not yet available in the market, which portrays a big opportunity that still awaits honeybush both in the domestic and global arena. Even its rival Rooibos iced tea has not yet made any meaningful impact on the international soft drink market, but demand is expected to surge along with the growing popularity of other iced teas and soft drinks in Europe, the US and Canada especially.

2.2.3 Speciality teas

There has been a tremendous upsurge in interest on the part of operators, hoteliers, entrepreneurs, and consumers for specialty tea. This interest is strongest in the Pacific Northwest of America, but there is much evidence that it is spreading to the rest of the U.S. as well. The trend to specialty teas is following on the curtails of a similar expansion in the coffee industry. Today, specialty coffee accounts for a third of total coffee sales and an even larger percentage of the profits. Consumer awareness of specialty tea is receiving a big boost from the exposure it is getting in coffee houses as well as free standing tea salons, retailers, and catalogue distributors.

The move to specialty teas is triggered in part by the lure of high profits, but is also in response to perceived renewed consumer interest in the entire tea category. Interest in specialty teas will also benefit from renewed marketing support on the part of producing countries interested in increasing the revenues and profits that they derive from this segment. A similar positive picture is also portrayed in some European countries such as Switzerland where sales of specialty teas have been growing over the past 12 years or so, and total sales in 2001-2002 were up approximately 30% compared to the year 2000. The same sort of increase is evident in Spain's specialty tea sales (www.teaandcoffee.net).

2.2.4 Herbal teas

Health awareness among consumers is underlined by the ongoing rise of herbal teas, and to a lesser extent, fruit infusions, both of which have been marketed from a health angle. Between 1994 and 1998, herbal teas were the most dynamic sub-sector in both volume and value terms in countries such as Italy, Spain, and the UK. In the UK alone, herbal tea sales soared by more than 16% between 1997 and 1998. The United States and Germany are two of the largest importers of herbal tea products, therefore holding large potential for South African indigenous products such as honeybush and its counterpart, rooibos.

During 1997, herbal teas represented around \$320 million of all US tea sales, with functional teas comprising \$80 million of herbal tea sales. In 1998, the US imported over 5 000 metric tons of plants and plant parts for use in herbal teas, at an estimated value of around \$22 million. This reflects an increase of 78% in volume and 156% in value from 1994 levels.

The herbal teas six largest import countries in terms of value are China, Chile, Taiwan, Mexico, Spain, and Germany. In 1998, China cashed in close to \$7 400 000 from the US herbal tea market, compared to \$3 136 000 by Chile. In terms of import volumes, China was also the largest, followed by Mexico, Chile, Germany and then India (Snyman, 2000).

This is more prevalent for green teas, as marketers observed that the market demand is calling for the production of unfermented or semi-fermented herbal teas. This also presents a huge opportunity for honeybush as the green formats are seen to yield dry green herbal teas in which maximum levels of the original naturally occurring antioxidants are retained. Future prospects look good in countries such as Japan also where consumers are returning to the more traditional green teas, not least because of the growing body of evidence about the health benefits of the drink.

2.2.5 Nutraceuticals and pharmaceuticals

Heightened awareness of the link between diet and health, as well as the interest in self-promotion of health, particularly among an ageing population, will also fuel growth in the nutraceuticals and pharmaceuticals. Scientific discoveries of substances with disease-fighting properties, particularly in the case of major life-threatening conditions that incur high health costs, have also led to the use as ingredients in functional foods. In countries such as the United States, an increase in the involvement of multinational companies in natural ingredients has been observed. Most of the large pharmaceutical companies have already entered the supplement business or are closely reviewing the market. For example, Warner Lambert, American Home Products, Bayer and SmithKline Beecham are all introducing herbal products and this add respectability to this previously marginalised market (Chung, 2000).

There is also a trend towards expansion of multinational chemical companies into the market sector now known as 'nutraceuticals', a subsection of the nutrition and food supplement industry. Nutraceuticals comprise of three principal areas, which are plant derived products, food and feed additives and dairy supplements. For example companies like DuPont diversified into a life science division and has acquired Proteins Technologies International to develop its soy proteins technologies. Also, Henkel Nutrition and Health Group in Germany are offering anti-oxidants and Hoffmann La Roche introducing a range of omega-3 fatty acids. As a result the European Market for nutraceuticals is projected to increase by 52% within the next three years (Chung, 2000).

Regarding honeybush, this implies huge potential and because of its antioxidants, it could be also used in the feed sector as an additive, although this still needs to be substantiated by research. The ARC-Rooderport started research on this issue, but discontinued due to lack of support, as natural products lack popularity, as they are not backed by huge sums of money to persuade the public compared to their rivals.

2.2.6 Alternative medicines

Worldwide, the trend towards herbal medicines and alternative treatment therapies is being combined with conventional medicine in the form of an integrated medical approach. According to the World Health Organisation, herbalism worldwide is three to four times more commonly practiced than conventional medicine.

In this industry, the US market is considered to be in an evolutionary phase and relatively immature compared to the European market for natural products. Europe has a long history of research and processing of natural products, and has much tighter regulations and established quality control procedures. Generally, the European market is as well regulated as the drug industry and many of the compounds sold in the US as dietary supplements.

In Europe, the major therapeutic categories for natural products in order of their magnitude are cardiovascular (27%), respiratory (15%), digestive (14%), tonics (14%) and hypotonics and sedatives account for approximately (10%). In the US, the reverse is true with sedatives, relaxants and other mood and memory enhancing compounds representing the largest category, and the cardiovascular treatments at the lower end of the usage pattern (Chung, 2000).

In both the US and Europe there has been a significant increase in the use of natural plant extracts as replacements for prescription pharmaceuticals. The major examples are the use of non-pharmaceutical products for the treatments of menopause in women and there is a growing market for their use in treatment and prevention of prostate cancer in men.

In the world, Germans are the leaders in scientific herbal evaluation under Commission E while in the US standard testing for approval is done by USFDA and has approved only a few botanicals and formulations. In Germany and France, alternative medicines are sold as prescription drugs in the pharmacies and are covered by health insurance. This is the single most factor affecting the use of these products in both countries. In Germany, about 80 percent of physicians regularly prescribe natural medications compared to fewer than 10 percent in the US.

In addition, the Europeans have a longer history of the use of natural products with medicinal properties for the treatment of dermatological compositions with Chamomile being among the top three selling preparation to this usage (Chung, 2000). Therefore honeybush, like rooibos, has unprecedented market opportunities in skin care products and hence in the cosmetic industry.

2.2.7 Organic and Fair Trade

In Europe, there is a growing demand for organic products. Total sales of organic food in Europe were estimated at €10 billion in 2002. The average growth rate annually is estimated between 5-15%. The Germany alone amounted to €3 billion of total sales in 2002, the Netherlands (€380 million) and UK (€1,45 billion) (www.sippo.ch)

There is also a growing demand for fair trade products, although still a very small proportion of international trade like organic products. The fair trade market accounts for US\$ 400 million in retail sales each year in Europe and the USA, or 0.01% of global trade. In Europe sales of fair trade products through alternative channels and supermarkets is calculated to be at least \$228 million. The fair trade product with the highest market share is banana in Switzerland which has achieved 15%, but elsewhere the market share for fair trade products such as tea and coffee is at most 2.7%. An increasing number of products are being traded on the basis of fair trade relationships and some producers that learned about export under the tutelage of fair trade partners are now able to enter conventional export markets (Tallontire, 2001).

Since these two systems, organic and fair trade complement one another, fair trade organisations have become an important distribution channel for organic products in Europe, particularly in Germany, Switzerland and the Netherlands, but also in a number of other markets. As one of the traditionally fairly traded products, the market for organic teas is growing strongly and Fair Trade organisations are pioneering work to develop environmentally-sensitive production and cultivation methods. Honeybush from Haarlem has already received the fair trade status which is an added advantage and is believed to be a start to other lucrative markets.

“If it has a fair trade status, it’s a bonus, and if also organic, it’s a double bonus”.

2.3 General Trends and Future Outlook

The trends and patterns discussed in the previous paragraphs and reasons for growth vary slightly around the world. There are definite trends that account for this new wave of success and are expected to do so in the next 5-10 years.

2.3.1 Macro demand forces

Although a series of external influences have affected demand for tea positively in the last few years, there are also consumer trends which counteract the growing demand for tea, and natural products in general. These include the following:

- Pursuit of a healthy lifestyle and acknowledgment of a greater responsibility for the quality of one's own health.
- Improved knowledge about nutrition and better dissemination of this information to the mass market.
- Greater reliance on natural homeopathic remedies to prevent disease as opposed to invasive procedures to treat disease.
- Continuing appeal of natural products. This is more prevalent in South Africa where there is a strong movement towards natural products with the word 'natural' being the buzzword in today's conversations.
- Concern for the environment prompts buying decisions compatible with that concern.
- Preference for quality products offering true value.
- Desire for products that go beyond satisfying basic needs of satiating hunger and thirst.
- Increasing sense of adventure and appreciation of foreign customs and cuisine.

The macro-demand forces have been in place for many years and several major ones are responsible for the creation of a big new industry, *healthy foods*. Prospects for soft drinks are positive as they stand to benefit from the growing trend towards healthy living, especially among women. There is room to grow sales through innovation, new products, and awareness. This trend, by nature, is long term and will probably

accelerate as more knowledge surfaces about the role beverages play in maintaining health. There are no doubts that these factors will affect the honeybush industry positively (www.teaandcoffee.com).

2.3.2 Micro demand factors

- Demand for convenience will continue to drive the market for RTD teas.
- Relative ease of entering this market and success of other start-up companies such as Snapple, Arizona, Lipton, and Mystic will continue to attract other companies and contribute to continued growth of the segment.
- Compatibility of tea with a great many flavours and spices will trigger many new entries including the development of sub-categories.
- RTD tea represents only a tiny percentage of overall consumer consumption of beverages, especially soft drinks with which the category is most closely compared. With increased marketing effort, RTD tea is likely to pick up significant share from soft drinks consumers, particularly with that segment concerned with health issues.
- As the market for foods consumed away from home continues to grow, RTD tea will continue to benefit from this trend.
- While the entire RTD tea category is still in its infancy, there is much room for growth for higher quality specialty brands as opposed to value based products. Evidence for this assumption is seen in the premium prices that consumers are willing to spend on branded water products. Of course, this necessitates that the branded products are supported by consumer marketing activities (www.teaandcoffee.com).

These predictions appear to paint a rosy picture for the tea industry and hence for honeybush over the next 5 -10 years. The forces in place are time-proven and significant, and should continue to positively affect growth for the future. However, as the saying goes, the only things guaranteed in life are taxes and death. Consequently, nothing should be taken for granted and the honeybush leaves will miss this boat unless the industry aggressively pursues the growth opportunities before it. On the basis of the growth realised over the last few years, it is safe to predict that honeybush will be one hot water the tea industry will encounter and use to make the world's favourite brews.

In the domestic market, future prospects also look good, although consumer awareness and or education will worth a while to strengthen this. Also, expectations are to see honeybush follow the swift growth pattern of rooibos. The reason is simple "You drink and you feel" (www.babyteas.com). In other words, the flavour and the feeling make the bottom line and are the main attributes that will make honeybush to be always sought after.

2.4 Prices

Taking into account the greater diversity in the quality of tea, prices are very variable and the price of tea is not determined by a quoted world market price as it is mainly sold through auctions. The principal auction markets are in Calcutta (India), Cochin (India), Colombo (Sri Lanka) Chittagong erreur (India), Chittagong se trouve au (Bangladesh), Mombasa (Kenya), and Jakarta (Indonesia), Limbe Cameroon. The sales therefore take place directly between sellers and purchasers or via traders. Table 2 reveals that prices of tea sold at all the international auctions registered an increase in \$ terms except at Jakarta in the last two years (Tea Board of India, 2003).

Table 2 World auctions (January to November)

Country	2002 (USD)	+/- (%)	2003 (USD)	+/- (%)
North India	1.30	(+) 0.04	1.34	(+) 3.08
South India	0.86	(+) 0.03	0.89	(+) 3.49
All India	1.16	(+) 0.06	1.22	(+) 5.17
Colombo (Sri Lanka)	1.54	(+) 0.01	1.55	(+) 0.65
Chittagong (Bangladesh)	1.01	(+) 0.16	1.17	(+) 15.84
Jakarta (Indonesia)	1.01	(-) 0.06	0.95	(+) 5.53
Mombassa (Kenya)	1.49	(+) 0.05	1.54	(+) 3.36
Limbe (Malawi)	0.91	(+) 0.02	0.93	(+) 2.20

Source: Tea Board of India, 2003

In 2003, India alone represented about 30% of world production of tea and should therefore be in a position of power when it comes to setting the price of tea. However, this is not necessary the case. Even though the quantity and the quality of Indian harvests have an influence on prices, this impact is minimal. Of major impact are economic relations between North and South and the power of the multinational companies. As far as honeybush is concerned, it is also produced in small quantities

that will hardly have any influence in tea prices in the medium term. However, import and export parity prices will be calculated since it is an exportable and or tradable product.

2.4.1 Import- and export parity prices

Although honeybush that is sold does not go through auctions like normal teas. However, the demand and supply forces play their role in price determination. Therefore world prices are of importance to consider since they determine the band within which domestic prices in South Africa could vary, depending on supply and demand levels. In a period where supply exceeds demand, tea prices will tend to move towards export parity, which might not even be the case for honeybush as always in short supply and hence prices are expected to move towards import parity. Therefore the calculated import- and export parity prices act as a ceiling and a floor price for domestic prices and hence final values should be taken as a point of reference when compared to local net prices.

The import parity price is normally higher than the export parity price. In Table 3, when some marketing costs are added, a processor in the Western Cape can import tea at a price of R8236.63 per ton. Given *ceteris paribus* assumption such as comparable quality and availability, the economically rational processor will be willing to pay a local farmer equal or less than this calculated price. Also, if other costs are from the warehouse to the processing point are to be subtracted, this will bring the price at the warehouse down to R8208.63 per ton. On the other hand, if a local farmer has to pay for tea that is stored at the warehouse he/she can only expect to receive a price of R8143.63per ton.

Table 3 Estimated import parity of honeybush

ITEM	HONEYBUSH
International Fob Price (\$/t) (+)	1 200.00
Ocean Freight Rates) (\$/t) (+)	23.00
Insurance (0.3% of Fob price) (+)	3.6
CIF (\$/t) (=)	1226.60
R/\$ Exchange Rate (average 06/2004)	6.49

(C.I.F.) (R/t)	7 960.63
Docking costs (R/t) (+)	51.00
Discharging costs(R/t) (+)	72
Free on rail at Cape Town (R/t) (=)	8083.63
Transport costs from harbour to Mosselbay (R/t) (+)	135.00
Financing cost (R/t) (+)	18.0
Price at Processor (R/t) (=)	8236.63
Transport costs from warehouse to processor (R) (-)	28.00
Warehouse price (R/t) (=)	8208.63
Storage (R) (-)	65.00
Warehouse gate price (R/t) (=)	8143.63

Source: Calculations based on Sagis, 2004

Note:

- the processor is assumed to be in Mosselbay and harbour in Cape Town.
- Price of US\$ 1.20/kg is the average calculated from all tea auctions listed in Table 2 and is also used in the calculation.
- Exchange rate of R6.49 is a 16-day average for June obtained from www.x-rates.com.

Conversely, when an export parity price is calculated as shown in Table 4, all marketing costs are subtracted. These therefore result into a large difference between the import and export parity prices. If all marketing costs are subtracted, the price that the farmer can expect at the warehouse gate is R7472.3 per ton of tea and is much lower compared to the import parity price. However, this price would still be attractive to farmers as it can generate profits that are comparable with those of other competing teas like rooibos.

Table 4 Estimated export parity price of honeybush

Item		Honeybush
CIF London (\$/t)		1 200.00
Exchange rate (R/\$) =		6.49
Honeybush (fob) London (R/t)		7788.00
SA fob price: Cape Town (90% of fob price) (R/t)*		7009.20
Docking (\$) (-)		65.20
Loading cost (\$) (-)		85.90
Price at quay (R) (=)		7160.30
Transport from warehouse to harbour(R) (-)		135.00
Storage (R) (-)		75.00
Financing (R) (-)		102.38
EXPORT REALISATION (R/t)		7472.3

Source: Calculations based on Sagis, 2004

2.4.2 Influencing factors to calculations

Moreover, higher transportation costs that make a significant difference between import and export parity prices will result in low volumes to be available for international trade, because they are at the disadvantage of the exporter. However, the export parity price confronting a particular exporter of any product can be increased i.e. a premium can be earned. This can be achieved through strategic marketing, which involve activities that convince buyers that the exporter's product is superior (e.g. more in consistent quality, no chemicals used, healthy *etc*) compared to other exporters.

Another potential influencing factor in these prices is an exchange rate, as a weaker rand against the dollar would raise South African prices in rands. Freight rates also influence the calculation. If at import parity, then higher freight rates could raise the SA exfarm price, similarly, if at export parity, it could lower the SA exfarm price.

CHAPTER THREE

SUPPLY ANALYSIS

World tea production in the last decade has grown at an annual rate of 1.81% per annum and consumption has kept pace at a slightly higher growth rate of 2.05% per annum. After India, the second largest producer is China but mainly produce green tea, while India produces mainly black tea. World tea exports have grown by almost 2% over the last decade. Sri Lanka is the largest exporter followed by Kenya, China and India. World imports grew yearly at 1.2% over the last decade. The largest importers are the UK, the United States, Japan and Arab countries such as United Emirates and Iraq (ITC, 2002).

3.1 World Production

World tea production reached 2.9 million tons in the year 2000 meaning a slight increase over 1999, but an overall stagnation as compared to peak production of 1998 (see Figure 2). Approximately 56% of this is consumed in the producing countries while the remainder of about 1.1 million tons are available for exportation (Tee Gschwendner, 2001).

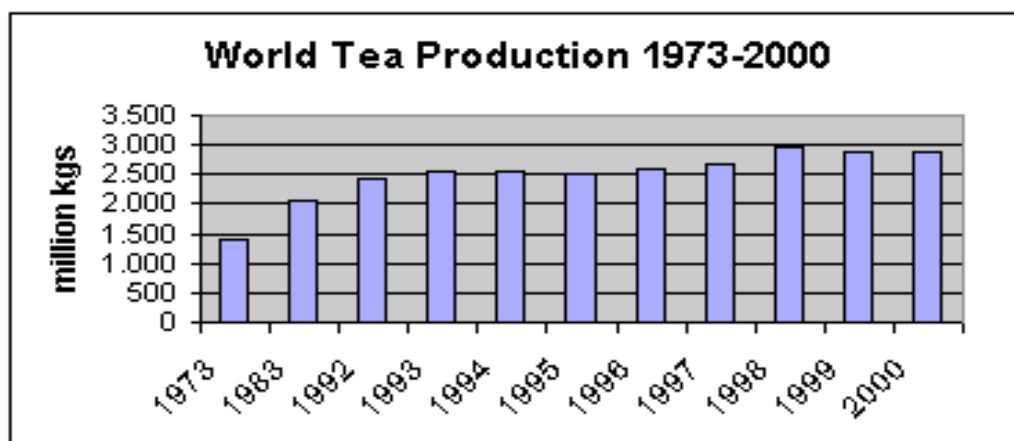


Figure 2 World Tea Production 1973-2000 based on Walker, 2002

Today tea is cultivated in approximately 36 countries and in three major categories i.e. green (unfermented), black (fermented) and oolong (partially fermented) as explained in

Section 1.2.2. Although not popular because of too low volumes to be of economic importance, but one could add a fourth category which would be white tea.

The most important tea producing countries are India, China, Kenya (normally referred to by origin, Africa) and Sri Lanka. However, tea is also cultivated in minor quantities in countries and regions such as Argentina, Brazil, Iran, Turkey, Vietnam, Korea, Malaysia, Thailand, Australia, New Guinea, Mexico, USA, Corsica, the Azores and Tuscany (Tee Gschwendner, 2001).

Tea production is an important economic factor in some countries. These include India with the highest production followed by China. However, India stands in the fourth position regarding tea exports; having Sri Lanka, Africa and China in the first three ranks respectively (See figure 3). Countries like Sri Lanka continues to rely heavily on the export market because domestic consumption uses only roughly 10% of production.

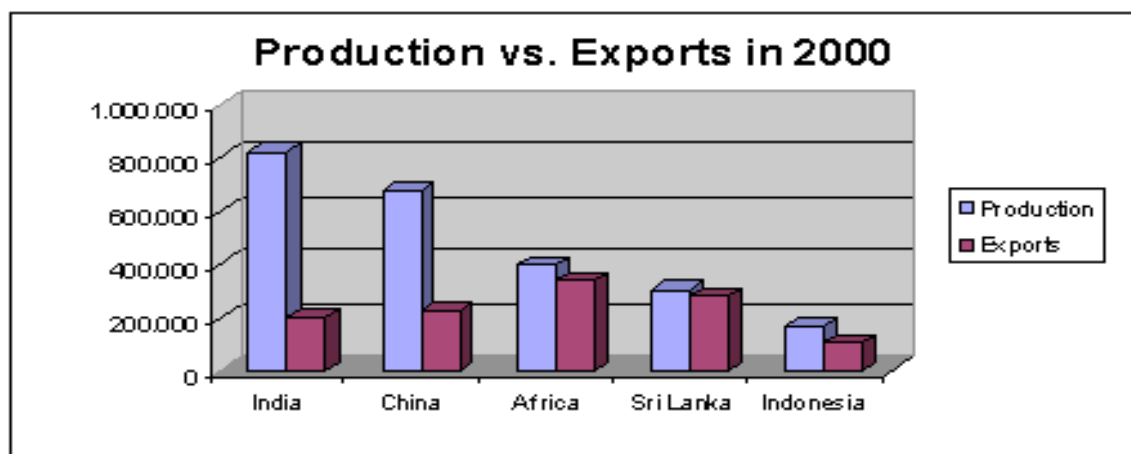


Figure 3 Production vs Exports, based on Walker, 2002

3.1.1 Tea major producing regions

During the year 2002 and 2003, tea crop in major producing countries increased by 36.5 million kilograms due to improvement in production of tea in India, Bangladesh, Kenya, Malawi, Tanzania and Uganda. However, production of tea in countries such as Sri Lanka, Indonesia and Zimbabwe experienced a decline in 2003 (see Table 5).

Table 5 Tea major producing countries during 2003 (million kilograms)

Country	January to	2002	2003	+ / -
India	November	778.5	809.9	(+) 31.4
Bangladesh	October	44.2	46.4	(+) 2.2
Sri Lanka	November	281.1	279.0	(-) 2.1
Indonesia	June	66.9	63.1	(-) 3.8
Kenya	October	231.4	233.1	(+) 1.7
Malawi	October	32.5	36.6	(+) 4.1
Tanzania	September	18.2	20.7	(+) 2.5
Uganda	September	23.4	24.7	(+) 1.3
Zimbabwe	September	15.8	15.0	(-) 0.8
Total	--	1492.0	1528.5	(+) 36.5

Source: Tea Board of India, 2003

India

India is the world's largest producer of tea, which is estimated to account for 30% of world production. In the year 2000, the country produced about 800,000 metric kilograms of tea, less than 25% of which was exported (www.stjamesteas.co.uk). India produces three tea specialities i.e. Darjeeling, Assam and Nilgiri. The Indian tea industry is highly mechanised and industrialised due to labour costs, which are above those of other competing countries like China. All categories of tea are produced: green, oolong, black and white. The focus of production, however, is clearly on black teas. Recently a shift towards organic farming has been noticed (Walker 2002).

China

China is one country that has enormous varieties of tea grown. A total of 138 distinct green teas with more than 12,500 subgroups are listed in the encyclopedia of Chinese teas (Rosen, 1998). Black, green and oolong teas are produced, but more than 80% of tea produced is green tea (Zittlau, 1997). The four most common Chinese teas exported world-wide are Jasmine Tea, Gunpowder, Lung Ching (Dragonwell) and Chun Mee (know as 'Precious Eyebrows') (www.stashtea.com).

Africa

In 2000, Africa was the third largest producer with Kenya as the most important producer. Total tea production was estimated in the region of 360,000 tons of which Kenya produced about 236,000 tons. As the most recent of the tea producing countries, African countries have been able to build on the experience of other producers. As a result, Africa is now a major force in world tea, producing teas of high quality and good bright colour which are used for blending all over the world. As a result, tea is also produced in countries such as Malawi, Uganda, Tanzania Zimbabwe, Rwanda and South Africa. Tea from these African countries is estimated at 25% of world exports amounting to some 250,000 tonnes (www.teacouncil.uk).

Sri Lanka (Ceylon)

In Sri Lanka, tea production dates back from the 1860s when the first tea seedlings were introduced by Scotsman James Taylor. Ever since, tea has become the major economic factor. Sri Lanka is the 3rd biggest tea producer with a market share of 9%. Sri Lanka has over 220,000 hectares under tea cultivation yielding about 240,000 tonnes of "made" The home of Ceylon Tea. Production in 2000 was just over 300,000 tons (approximately 10% of world production), but fell in the last two years to 281.1 and 279.0 respectively (www.stjamesteas.co.uk).

Sri Lanka's tea is still well known and sold under the country's colonial name Ceylon. Three categories of Ceylon tea can be distinguished according to the altitude of the area where it is cultivated:

- Highgrows: growing from 1300 to 2500 meters
- Mediums: growing between 650 and 1300 meters
- Lowgrows: growing at less than 650 meters

Indonesia

Indonesia, with a production of approximately 165,000 tons of tea a year is also among the largest producers of tea in the world, and contributes about 100,000 tons to world's exports, just under 10%. In this country, most plantations have focused on mass production and as a result, Indonesian tea is mostly used for blending. The main advantage that Indonesia has over other countries is its year round production.

3.2 World Exports

According to Table 6 tea exports in major producing and exporting countries registered a decline of 37.9 M.Kgs due to decline in export from India, Bangladesh, Sri Lanka, Kenya and Argentina (Tea Board of India, 2003). However, most African countries with the exception of Zimbabwe experienced an increase in exports.

Table 6 Major producing countries exports during 2003 (million kilograms)

Country	January to	2002	2003	(+) or (-)
India	November	184.7	143.7	(-) 41.0
Bangladesh	June	5.7	4.1	(-) 1.6
Sri Lanka	October	246.4	246.4	-
China	September	185.8	197.6	(+) 11.8
Kenya	September	209.3	199.6	(-) 9.7
Malawi	June	26.7	29.5	(+) 2.8
Tanzania	September	15.1	15.8	(+) 0.7
Uganda	August	19.5	20.4	(+) 0.9
Zimbabwe	September	14.3	12.7	(-) 1.6
Argentina	July	38.1	37.9	(-) 0.2
Total	--	945.6	907.7	(-) 37.9

Source: Tea Board of India, 2003

3.3 Domestic Supply Analysis

For a number of years, honeybush have been harvested from the wilderness. This wild harvesting for use as an herbal tea has traditionally been an important source of income to a number of people. As a result, the industry is estimated to comprised of 30 wild harvesters that supply the market with tea that has been granted organic status as it is from wilderness. Because it has been harvested from the wild, the natural population of

honeybush species has, however, diminished over the years, affecting the income of the harvesters.

Through intervention of various stakeholders, commercial cultivation of honeybush has been encouraged. At present, there are approximately 20 producers and two communities, which supply seven processors. There are also about 15 marketers that facilitate the marketing process. The cultivation in the communities is estimated at approximately 15 hectares of dry land. Production per hectare is estimated at between 2 and five tons for sprouting species like *Cyclopia intermedia* and *Cyclopia genistoides* and could be up to 10 tons for higher yielding species such as *Cyclopia subternata* (www.capehoneybushtea.co.za).

Even the commercial plantings that are available at present are still perceived to be totally inadequate to represent a meaningful industry. Therefore more hectares devoted to honeybush cultivation are crucial from both nature conservation and the establishment of the industry especially for efficient development of the international market. The product therefore is a cash crop except the re-sprouting species and can be ready to be harvested within a year and hence supply can be increased over a short period of time. But, if the situation remains as it is at the moment, this could jeopardise export opportunities in markets such as Germany, the United Kingdom and Japan where demand is prevalent for this product.

Another critical factor is rainfall, as production is carried in dryland, which is cost saving but yield compromising. Rainfall is crucial in honeybush production, as it strongly affects yield and quality and hence pricing and or optimum margins in both domestic and international markets. Another critical factor is the absence of official standards for taste and flavour, physical properties and micro-organism counts especially for the international market. In the last eight years though, the industry has seen an improvement in the quality of tea and the establishment of export standards, construction of large processing and packaging facilities (Wesgro, 1999).

However, the competitive advantage of the product lies on its uniqueness to the Western Cape, the only area where it is found in its natural habitat. Also, being natural, organic and the health benefits associated with it can be added to its advantage

(Wesgro, 1999). Its competitive advantage will also be strengthened by the fact that the international market is forcing companies to differentiate and hence new products are being introduced. Therefore being a new product, honeybush stands a chance to have wide applications and to be accepted in a number of industries. It is envisaged that people often make assumptions that it will be easily accepted as its counterpart rooibos which has been in the market for some time, however, this will still require comprehensive promotion at both local and international market.

3.3.1 Exports

International demand for honeybush has shown an increasing trend in the last five years. Between 1999 and 2003, sales of honeybush increased from 50 to 160 tons, although local supply is far to even market demand for this product (see Figure 4). The industry has a huge potential of earning foreign exchange as approximately all tea that is produced is for the export market, as the local market consumes only a small amount. However, the local market is also envisaged to be increasing steadily.

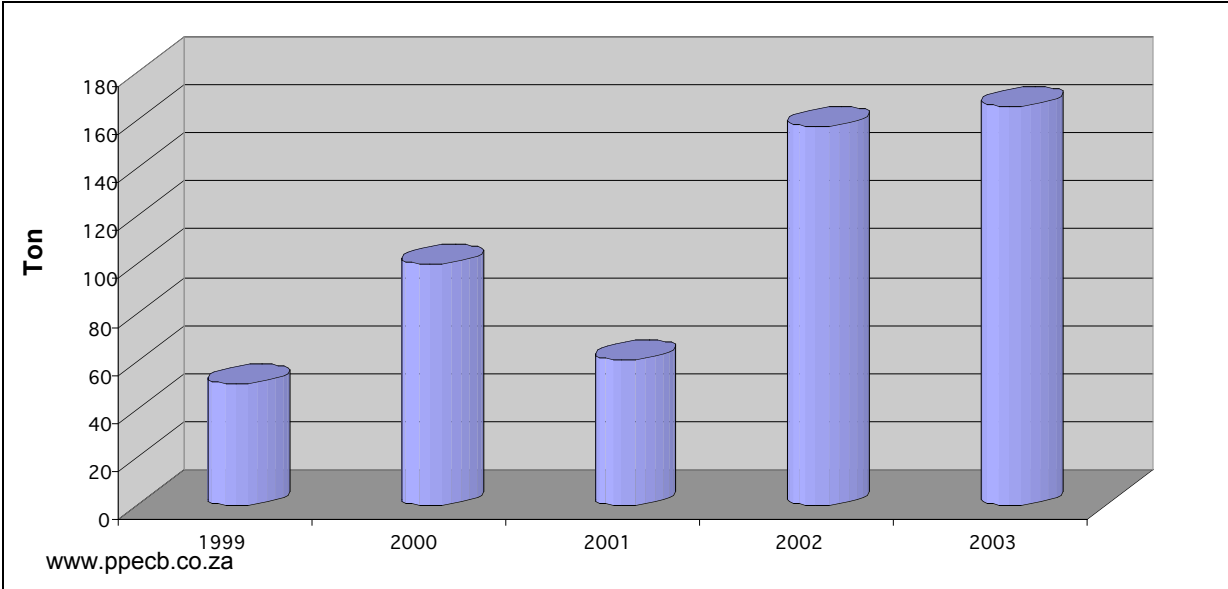


Figure 4 Honeybush passed for exports 1999-2003

The largest export customers of rooibos, are also observed to be the existing and possible future customers for honeybush tea and these include UK, Japan, Germany and Switzerland where health drinks are particularly sought after. The growing export

figures and a steady increase in local consumption has sparked off a widespread interest in the commercial growing and processing of honeybush tea. As a result, production of honeybush is forecasted to increase in the few coming years with growth estimated at about 20% per annum on average.

However, production forecast is difficult to conclude due to climatic constraints that seem to be a threat to the whole agricultural industry. Highly depending on natural factors at different times of year, some months record positive growth while the others poor growth as outlined in Figure 5.

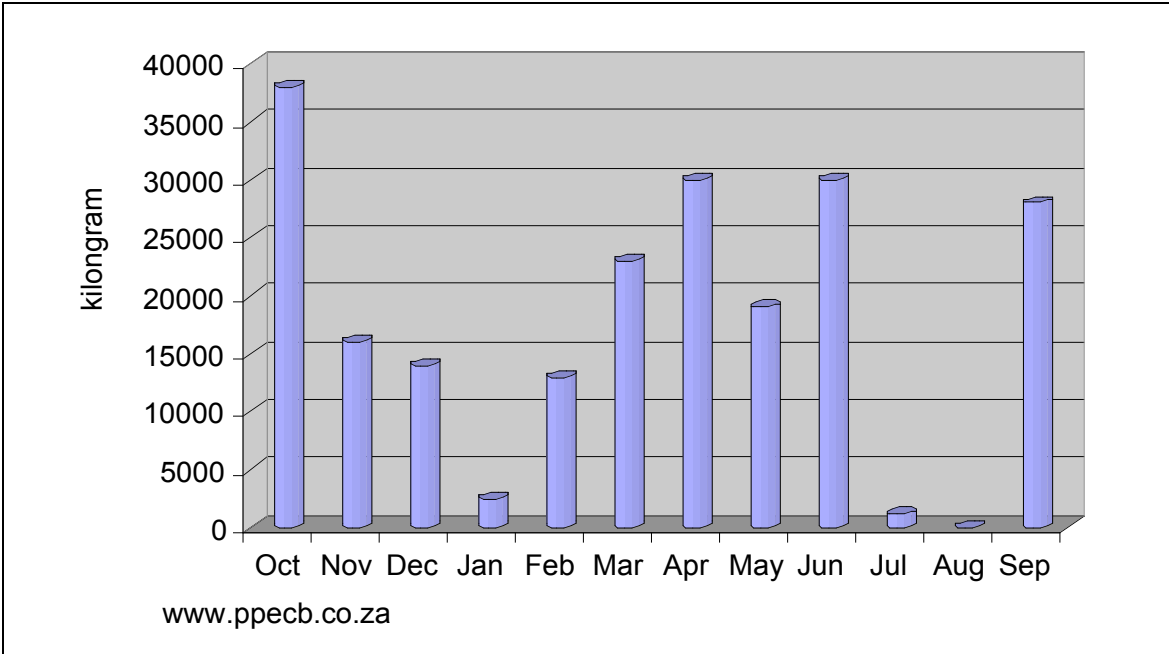


Figure 5 Honeybush monthly exports from October 2002 to September 2003

3.4 Economic Analysis

The process of analysing a farm business has been traditionally divided into two parts (MAFF, 1980). General analysis based primarily upon financial accounts and other appropriate records and a more detailed analysis of the individual enterprises on the farm in the form of gross margins for each enterprise. Gross margins provide a useful tool in terms of farm budgeting and estimating the likely returns or losses of a particular crop.

In recent years, with the increasing economic pressure on agriculture, there has been a greater use of cost accounting techniques which result in net margin or profit per enterprise. In cost accounting or complete enterprise costing, not only are the outputs and variable costs allocated to individual enterprises, as for gross margins, but the fixed costs are also allocated. This results in a net profit per enterprise and, with all costs allocated, enables the calculation of costs per ton produced on the farm and break-even budgets. The strength of such techniques is that they help to identify all costs involved in a particular enterprise (Firth, 2002).

Despite their apparent simplicity, however, the full cost approach is fraught with difficulties. Awkward and sometimes arbitrary decisions have to be made concerning the allocation of overhead expenses between enterprises (Barnard and Nix, 1979). But the net margins are used in this study, as they are assumed to give full coverage of an enterprise concerned.

3.4.1 Enterprise budget analysis

The information presented in Table 7 was obtained through informal interviews with commercial and small-scale farmers involved in honeybush production. Unlike the other studies, an attempt to give a closer to a real situation of honeybush production is made, as most of the information in the budgets is a reflection of actual production. The advantage being the experience and the period since honeybush farmers have been engaged in production. However, it is not common to conduct economic analysis without any assumptions.

Therefore the base scenario, i.e. yields, costs breakdown presented in Table 7 is taken from the enterprise budgets that are part of the appendices. The gross income varies according to the yield and price while the yield could be manipulated according to size of production. However, discussions with various producers and researchers led to the following assumptions:

- One hectare is available and is used as a unit of analysis in this study
- Productive life expectancy of the plant is projected to be five years, but could be longer depending on a species. However, calculations in this study are for year

one (establishment) up to year three. This is based on assumption that the yield is lower in year one and starts increasing in year two and in full capacity and constant from year three to year five. Thus, budgets for other years will not be of any significant difference. Also, costs are higher in year one, decrease in year two and stable from year three onwards.

- Assumed to yield between 0 and 7 tons per hectare depending on the year, area and species. For subternata, if grown under conducive conditions, more yield could be expected. Also, in certain production areas, no output could be expected in the first year of establishment. This could also depend on the species used as this is highly expected of intermedia although not discussed in this study.
- The current market price that farmers receive is R2.50 per kg of dry honeybush depending on the area, as Haarlem small scale producers are assumed to receive a price of R2.00 per kg
- Costs are considered at current prices
- Mortality rate of plants is assumed at 25%, 30% and 40% depending on the species and area
- Market related interest rates assumed are not less than prime plus two
- Marketing and distribution costs are for the account of secondary intermediaries