December 2006

OPERATIONAL AND EFFICIENCY IMPROVEMENTS

in the

SENWESKO FEED-MILLING PLANT

at

VILJOENSKROON

H.F. Badenhorst

Declaration of own work:

This project, the contents, technical data, strategies, progress reports and implementation of actions are a combination of various development programs under my own initiative. The total project is my own work and various people and specialists in the feed industry were consulted to compile a holistic report on the developments and expected outcome of this study. This study and the subsequent evaluation will form the basis for future studies directed at evaluation of turn-around strategies applicable to the feed milling industry.

A special thanks to my study guide, **Jacques van Wyk,** for the continual inspiration and encouragement during the compilation of this study.

The content of this study is confidential.

H.F.Badenhorst (Barries)

ACKNOWLEDGEMENTS:

A special note needs to be made for the insight and contributions made to this project by Chris van Niekerk. Chris is currently the Managing Director for Senwesko feeds. He was previously the Managing Director of Epol a division of Rainbow. He served as a director at Afma and on various other committees related to the animal feed industry. Chris shares his technical know-how unreserved through his passion for the feed industry. His experience and understanding of the feed industry linking operational issues with financial management of the business is revolutionary and bears fruit in all the operations where he creates a vision for a market leader.

Thank you Chris.

CONTENTS

1. EXECUTIVE SUMMARY

Senwesko (Pty) Ltd is a feedmilling company in Viljoenskroon in Northern Free State. The company was purchased by two of the biggest poultry farming groups' owners in South Africa, Country Bird and Chubby Chicks. John Fourie and Kevin James saw the potential of the feedmill, strategically situated, and the potential in capacity to produce animal feed that would supply in the future expansion needs of their groups. The company is in a process of development and various legal contracts with respect to expanding to more milling facilities are currently being concluded.

This project describes the current development in the Viljoenskroon feedmill requiring improvements in quality of product, through-put and future expansions. The initial developments include the appointment of a management team and the subsequent restructure of the feedmill. A turn-around strategy was developed and implemented through the various disciplines in the company. Capacity and design studies were conducted and a proposal for a capital investment of R6,4 mil was requested from the shareholders. The capital investment was suggested to achieve volume expansion of 34 000 tons per month, a cost reduction below R150 per ton feed produced and a quality of feed produced to increase above 90% in delivered quality on the farms.

The strategy to develop Senwesko feeds from an ill-fated business to a profitable and sustainable market leader in animal feeds are described in the business plan which includes an operational strategy, marketing plan and establishing standards for various aspects of feedmilling are discussed. Some of the critical issues are described in the product scheduling and optimization model. These highlight the objectives of the market plan and prioritize the capital expenditure. In essence the success of the Viljoenskroon feedmill is founded in the majority of the production being allocated to tied business. New business need to be developed, however the guidelines are defined in a pellet to mask ratio of and ideal of 70% to

30%. The range in diverse product range is of concern since the feedmill produce efficiently on longer and continuous runs of product.

The basis for the operational strategy and efficiency improvements are reflected in the 3 year financial projections. The recommendations and indications from the initial investigation should leave the shareholders with a favourable return on investment. Future investments in capacity expansion, technology upgrade and expansion to other feedmills nationally can be considered as a secure investment.

2. INTRODUCTION

This project describes the process followed to improve the efficiencies and operational issues in the Senwesko feedmill in Viljoenskroon in Northern Free State. The project describes the development of the process in terms of operational and efficiency parameters. This allows for the definition of an objective and a business principle.

Earlier in 2006 Senwesko feeds were facing financial difficulties as predicted in the financial statements and continuous losses in the market share due to delivery, service and quality of the product. The company was bought as a running concern once the two shareholders evaluated the potential of the company in distress.

The owners of Country Bird and Chubby Chicks could secure around 65% of the feed mill's business however they required a turn-around strategy to be implemented by a selected group under guidance of a new managing director. This turn-around strategy has to be implemented in the various aspects of the business by the management team in order to ensure the longer term sustainability of the business, generate acceptable levels of ROI to the shareholders and turn the company into a profitable organization.
The strategy involved creating order in the company, establish a workable structure, allow clear communication at all levels on the expected objectives and to lift the level of motivation amongst the employees.

This study will show how the operational efficiencies are improved in the Viljoenskroon Feed Mill. This is achieved by defining the starting points as described in the financial statements, plant volumes and quality draw backs. The combined efficiency improvements in the various disciplines of the business are used in a defined structure and orchestrated to achieve the results in market, financial and efficiency benefits.

Part of the turn-around strategy involves capital expenditure. The justification and validation of this investment in the upgrading of the Viljoenskroon facility is estimated at R6,4 mil during the first year of a 3 year upgrading process. The investment and subsequent operational implementation are both part of a business plan as well as business strategy that will be implemented in future investments in Viljoenskroon and other national facilities. The main objectives are to ensure a return to the shareholders through volume increase to around 40 000 tons per month as well as cost reduction to below R126 per ton feed produced. The projections for the next 3 financial years shows a resultant increase in PBIT as a result of the operational and marketing activities.

Many of the theories, strategies and experiences adopted by the author originate from similar developments in other related industries such as Epol feedmills situated nationally. The experience of colleagues and mentors were called upon and these principles are explained in the text. The understanding of the principles for this sector of the industry is necessary to continue with a single strategy through-out the improvement process. These principles are explored during the functional analysis in areas such as, finance, procurement, formulation, maintenance, production and marketing.

During the initial phases of the process the important aspects of structure and organization communication are addressed. Operational aspects of the improvements are obtained through motivating and informing current staff on technical issues. The issues include plant and equipment as well as the basic understanding of why certain quality measures are targeted resulting in improved value to the customer.

The capital investment in the plant is aimed at the standardization, reliability and quality aspects of the product and through-put. Estimates are modelled to recommend the optimal ratio between various products and machine capacities. Capital investment is conservative since the efficiencies and application of processes are in many instances inadequate. These inefficiencies are addressed primarily. Additional capital might be required however this will be motivated separate to the initial upgrading programme.

The plant model and subsequent financial reporting and performances are evaluated over the initial period and recommendations are made on the findings with respect to marketing, product mix and operational controls and efficiencies.

3. THE INDUSTRY

The Senwesko feeds (Pty) Ltd originates from a transaction where Country Bird and Chubby Chick's owners bought the feed division from Senwes during 2005. Senwesko Feeds started to operate as and individual company from May 2006. The market for animal feeds originated from Sentraalwes founded 97 years ago, Sentraalwes played a leading role in the South African agricultural industry. The business has grown steadily and diversified, and on 10 April 1997 the old co-operative business form made way for a new public company, Senwes. Senwes conducted extensive activities in sectors such as the grain industry, supply of farming inputs, the mechanization market and financing services focused on agriculture; with the presence in the Free State, North West, Northern Cape and Gauteng Provinces.

Senwesko feeds are supplying animal feed for poultry, dairy cows, beef, pigs and game.

The concept of tied business at Senwesko is bas on being dedicated to the shareholders' poultry business. This allows for stability in the production and marketing forecasts and includes the planned expansions for the poultry businesses at Country Bird, Chubby Chicks and related expansions.

The market expansion is aimed at geographical grouped areas associated with available technical support and back up. The market strategy is not only aimed at pricing structure but allows for a combination of best value supplier strategy with technical back-up and support from Senwesko on feed quality, animal production and feed conversion rates.

National growth is illustrated in the section under marketing and predicts that an addition 40 000 tons per month is available in this section of the market. The major expansion is in line with expansions in the poultry farming and optimism in the dairy and beef sectors. A major opportunity is available in a basket product including pre-mixes and concentrates. The Senwesko assets allows for relative economic exoansion into pre-mix facilities. The pre-mixes should be able to generate at least 10 tons of pre-mix per month. Product development prospects are currently under investigation. Buildings, structures and property are available and paid for. The development of a central laboratory team and knowledgeable management are the first milestone in this process.

Market share originates from a going concern and the attached financial statements illustrates the trend in the margins that was achieved historically. The history and existing market share allows Senwesko to continue with business, however raw material procurement policy and efficiencies in the operations are the first hurdles requiring assessment and improvements.

During the selling of the feed division the staff experienced a prolonged period of uncertainty however with the current drive and achievement of objectives the motivation of management and employees are positive and a spirit of achievement is shared amongst members.

PRODUCTS:

Bulk

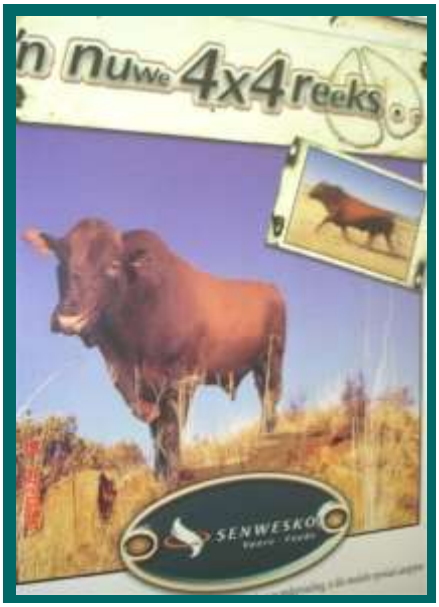
Pellets

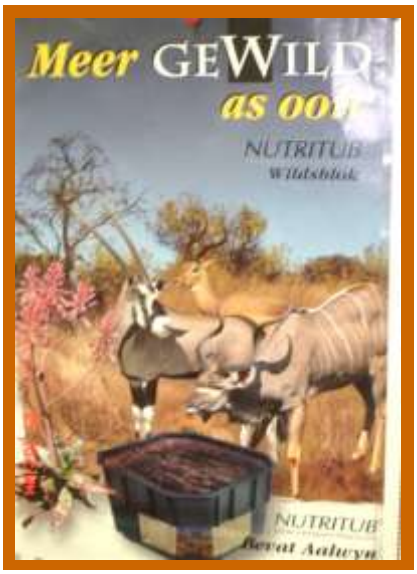
Bags

Bags

Mash

Lick Blocks





4. FINANCIAL STATEMENTS

4.1 Previous 3 year Balance Sheet

	2004	2005	2006
ASSETS			
Non-current assets	23,389,028	18,132,603	18,432,267
Property, plant and equipment	14,628,090	15,313,916	13,092,422
Investment in joint venture	6,442,203	2,818,687	2,709,464
Deferred tax asset	2,318,735		2,630,380
Current assets	83,152,295	53,964,512	92,104,812
Inventory	41,232,583	18,814,403	22,498,535
Trade and other receivables	41,907,512	35,101,255	61,954,781
Cash	12,200	48,854	7,651,495
Total assets	106,541,323	72,097,115	110,537,079
EQUITY			
Capital	29,492,645	28,021,222	31,034,210
Share capital	500	500	100
Share premium	24,999,600	24,999,600	4,999,920
Accumulated profit	4,492,545	3,021,122	26,034,190
LIABILITIES			
Non current liabilities	1,193,148	1,502,467	21,061,323
Long-term borrowings	1,193,148	1,502,467	21,061,323
Current liabilities	75,855,530	42,573,426	58,441,546
Short-term borrowings	47,578,456	13,194,914	1,616,091
Trade and other payables	26,487,485	29,378,512	46,309,010
Provisions	1,789,589		6,694,953
Current tax liability			3,821,492
Total liabilities	77,048,678	44,075,893	79,502,869
Total equity and liabilities	106,541,323	72,097,115	110,537,079

4.2 Previous 3 year Income statement

	2004		2005		2006	
	TONS		TONS		TONS	
	193,175		173,540		274,603	
	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton
Sales	361,926,242	1,874	318,749,556	1,837	468,061,826	1,705
Cost of Sales	277,764,156	1,438	250,405,414	1,443	343,832,328	1,252
	84,162,086	436	68,344,142	394	124,229,498	452
Transport	20,289,872	105	16,348,027	94	26,250,106	96
Gross Profit	63,872,214	331	51,996,115	300	97,979,392	357
Production cost	31,623,269	163.7	29,974,297	172.7	39,614,448	144.3
Fixed	15,377,992		15,563,365	89.7	19,326,578	70.4
Variable	16,245,277	84.1	14,410,932	83.0	20,287,870	73.9
Other fixed cost	25,508,183	132.0	25,881,836	149.1	32,900,758	119.8
Admin	9,940,841	51.5	9,027,448	52.0	15,501,926	56.5
Advertising	2,604,544		2,189,507	12.6	1,745,903	6.4
Bad debt			541,751	3.1	1,077,316	3.9
Laboratory	1,119,469	5.8	1,074,991	6.2	1,336,088	4.9
Purchasing	756,229	3.9	1,028,365	5.9	1,046,699	3.8
Sales cost	6,379,510	33.0	7,563,436	43.6	7,655,812	27.9
Technical	2,616,335	13.5	2,741,351	15.8	2,641,993	9.6
Technology	2,091,255	10.8	1,714,987	9.9	1,895,021	6.9
Total Operating cost	57,131,452	295.7	55,856,133	321.9	72,515,206	264.1
Operating profit	6,740,762	34.9	-3,860,018	-22.2	25,464,186	92.7
Income Consultations	2,524,709	13.1	2,369,869	13.7	2,516,160	9.2
PBIT	9,265,471	48.0	-1,490,149	-8.6	27,980,346	101.9
Interest	2,888,587	15.0	1,953,455	11.3	1,298,723	4.7
Nett profit before tax	6,376,884	33.0	-3,443,604	-19.8	26,681,623	97.2

4.3 Current 6 Month Income statement

	Month 1		Month 2		Month 3		Month 4		Month 5		Month 6	
	TONS 19,183		TONS 21,000		TONS 22,000		TONS 23,000		TONS 24,000		TONS 25,000	
	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton
Sales	39,916,556	2,081	43,697,424	2,081	46,693,818	2,122	48,829,000	2,123	50,952,000	2,123	53,175,000	2,127
Cost of Sales	32,897,121	1,715	36,013,113	1,715	38,105,303	1,732	39,836,000	1,732	41,568,000	1,732	43,325,000	1,733
	7,019,435	366	7,684,311	366	8,588,515	390	8,993,000	391	9,384,000	391	9,850,000	394
Transport	1,822,385	95	1,995,000	95	2,090,000	95	2,185,000	95	2,280,000	95	2,375,000	95
Gross Profit	5,197,050	271	5,689,311	271	6,498,515	295	6,808,000	296	7,104,000	296	7,475,000	299
Production cost	2,237,590	116.6	2,324,977	110.7	2,373,072	107.9	2,421,166	105.3	2,469,260	102.9	2,517,355	100.7
Fixed	1,314,997	68.6	1,314,997	62.6	1,314,997	59.8	1,314,997	57.2	1,314,997	54.8	1,314,997	52.6
Contract Labour	178,879	9.3	178,879	8.5	178,879	8.1	178,879	7.8	178,879	7.5	178,879	7.2
Depreciation	192,708	10.0	192,708	9.2	192,708	8.8	192,708	8.4	192,708	8.0	192,708	7.7
Weighbridge	19,172	1.0	19,172	0.9	19,172	0.9	19,172	0.8	19,172	0.8	19,172	0.8
Salaries	621,602	32.4	621,602	29.6	621,602	28.3	621,602	27.0	621,602	25.9	621,602	24.9
Site services	281,173	14.7	281,173	13.4	281,173	12.8	281,173	12.2	281,173	11.7	281,173	11.2
Stationary	6,275	0.3	6,275	0.3	6,275	0.3	6,275	0.3	6,275	0.3	6,275	0.3
Telephone	15,188	0.8	15,188	0.7	15,188	0.7	15,188	0.7	15,188	0.6	15,188	0.6
Variable	922,593	48.1	1,009,980	48.1	1,058,075	48.1	1,106,169	48.1	1,154,263	48.1	1,202,358	48.1
Consumables	7,865	0.4	8,610	0.4	9,020	0.4	9,430	0.4	9,840	0.4	10,250	0.4
Electricity	130,005	6.8	142,319	6.8	149,096	6.8	155,873	6.8	162,650	6.8	169,427	6.8
Forklift	47,813	2.5	52,342	2.5	54,834	2.5	57,327	2.5	59,819	2.5	62,312	2.5
Maintenance	118,247	6.2	129,447	6.2	135,611	6.2	141,776	6.2	147,940	6.2	154,104	6.2
Overtime	189,446	9.9	207,390	9.9	217,266	9.9	227,142	9.9	237,017	9.9	246,893	9.9
Packaging Material	223,743	11.7	244,936	11.7	256,599	11.7	268,263	11.7	279,927	11.7	291,590	11.7
Steam	177,262	9.2	194,052	9.2	203,293	9.2	212,533	9.2	221,774	9.2	231,014	9.2
Vehicle cost	17,943	0.9	19,643	0.9	20,578	0.9	21,513	0.9	22,449	0.9	23,384	0.9
Water	10,269	0.5	11,242	0.5	11,777	0.5	12,312	0.5	12,848	0.5	13,383	0.5
Other fixed cost	1,756,722	91.6	1,760,356	83.8	1,762,356	80.1	1,764,356	76.7	1,766,356	73.6	1,768,356	70.7
Admin	637,335	33.2	637,335	30.3	637,335	29.0	637,335	27.7	637,335	26.6	637,335	25.5
Advertising	100,000	5.2	100,000	4.8	100,000	4.5	100,000	4.3	100,000	4.2	100,000	4.0
Bad debt	38,366	2.0	42,000	2.0	44,000	2.0	46,000	2.0	48,000	2.0	50,000	2.0
Laboratory	125,000	6.5	125,000	6.0	125,000	5.7	125,000	5.4	125,000	5.2	125,000	5.0
Purchasing	68,199	3.6	68,199	3.2	68,199	3.1	68,199	3.0	68,199	2.8	68,199	2.7
Sales cost	412,822	21.5	412,822	19.7	412,822	18.8	412,822	17.9	412,822	17.2	412,822	16.5
Technical	225,000	11.7	225,000	10.7	225,000	10.2	225,000	9.8	225,000	9.4	225,000	9.0
Technology	150,000	7.8	150,000	7.1	150,000	6.8	150,000	6.5	150,000	6.3	150,000	6.0
Total Operating cost	3,994,312	208.2	4,085,333	194.5	4,135,428	188.0	4,185,522	182.0	4,235,616	176.5	4,285,711	171.4
Operating profit	1,202,738	62.7	1,603,978	76.4	2,363,088	107.4	2,622,478	114.0	2,868,384	119.5	3,189,289	127.6
Income Consultations	132,804	6.9	132,804	6.3	132,804	6.0	132,804	5.8	132,804	5.5	132,804	5.3
PBIT	1,335,542	69.6	1,736,782	82.7	2,495,892	113.4	2,755,282	119.8	3,001,188	125.0	3,322,093	132.9
Interest	154783	8.1	154783	7.4	154783	7.0	154783	0.0	154783	6.4	154783	6.2
Nett profit before tax	1,180,759	61.6	1,581,999	75.3	2,341,109	106.4	2,600,499	113.1	2,846,405	118.6	3,167,310	126.7

4.4 Current month and next 3 year monthly Income Statements

	CURRENT		YEAR 1		YEAR 2		YEAR 3	
	TONS 19,183		TONS 30,000		TONS 34,000		TONS 40,000	
	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton
Sales	39,916,556	2,081	66,800,100	2,227	76,414,320	2,247	90,731,600	2,268
Cost of Sales	32,897,121	1,715	54,022,500	1,801	61,808,600	1,818	73,402,000	1,835
	7,019,435	366	12,777,600	426	14,605,720	430	17,329,600	433
Transport	1,822,385	95	2,878,500	96	3,294,600	97	3,914,000	98
Gross Profit	5,197,050	271	9,899,100	330	11,311,120	333	13,415,600	335
Production cost	2,187,590	114.0	2,805,854	93.5	3,049,142	89.7	3,391,672	84.8
Fixed	1,264,997	65.9	1,363,025	45.4	1,413,936	41.6	1,467,900	36.7
Contract Labour	178,879	9.3	189,611	6.3	200,988	5.9	213,047	5.3
Depreciation	142,708	7.4	192,708	6.4	192,708	5.7	192,708	4.8
Weighbridge	19,172	1.0	19,172	0.6	19,172	0.6	19,172	0.5
Salaries	621,602	32.4	658,898	22.0	698,432	20.5	740,337	18.5
Site services	281,173	14.7	281,173	9.4	281,173	8.3	281,173	7.0
Stationary	6,275	0.3	6,275	0.2	6,275	0.2	6,275	0.2
Telephone	15,188	0.8	15,188	0.5	15,188	0.4	15,188	0.4
Variable	922,593	48.1	1,442,829	48.1	1,635,206	48.1	1,923,772	48.1
Consumables	7,865	0.4	12,300	0.4	13,940	0.4	16,400	0.4
Electricity	130,005	6.8	203,313	6.8	230,421	6.8	271,084	6.8
Forklift	47,813	2.5	74,774	2.5	84,744	2.5	99,699	2.5
Maintenance	118,247	6.2	184,925	6.2	209,581	6.2	246,566	6.2
Overtime	189,446	9.9	296,272	9.9	335,775	9.9	395,029	9.9
Packaging Material	223,743	11.7	349,908	11.7	396,563	11.7	466,544	11.7
Steam	177,262	9.2	277,217	9.2	314,180	9.2	369,623	9.2
Vehicle cost	17,943	0.9	28,061	0.9	31,802	0.9	37,414	0.9
Water	10,269	0.5	16,060	0.5	18,201	0.5	21,413	0.5
Other fixed cost	1,756,722	91.6	1,889,356	63.0	1,961,156	57.7	2,009,356	50.2
Admin	637,335	33.2	637,335	21.2	637,335	18.7	637,335	15.9
Advertising	100,000	5.2	110,000	3.7	125,000	3.7	135,000	3.4
Bad debt	38,366	2.0	75,000	2.5	91,800	2.7	120,000	3.0
Laboratory	125,000	6.5	125,000	4.2	125,000	3.7	125,000	3.1
Purchasing	68,199	3.6	114,199	3.8	114,199	3.4	114,199	2.9
Sales cost	412,822	21.5	452,822	15.1	492,822	14.5	502,822	12.6
Technical	225,000	11.7	225,000	7.5	225,000	6.6	225,000	5.6
Technology	150,000	7.8	150,000	5.0	150,000	4.4	150,000	3.8
Total Operating cost	3,944,312	205.6	4,695,210	156.5	5,010,298	147.4	5,401,028	135.0
Operating profit	1,252,738	65.3	5,203,890	173.5	6,300,822	185.3	8,014,572	200.4
Income Consultations	132,804	6.9	132,804	4.4	132,804	3.9	132,804	3.3
						0.0		
PBIT	1,385,542	72.2	5,336,694	177.9	6,433,626	189.2	8,147,376	203.7
Interest	154783	8.1	214783	7.2	214783	6.3	214783	5.4
Nett profit before tax	1,230,759	64.2	5,121,911	170.7	6,218,843	182.9	7,932,593	198.3

4.5 Current and next 3 year predicted yearly Income Statements

	CURRENT		YEAR 1		YEAR 2		YEAR 3	
	TONS 284,183		TONS 360,000		TONS 408,000		TONS 480,000	
	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton	Rand	R/Ton
Sales	591,336,425	2,081	801,720,000	2,227	916,776,000	2,247	1,088,640,000	2,268
Cost of Sales	487,348,305	1,715	648,360,000	1,801	741,744,000	1,818	880,800,000	1,835
	103,988,120	366	153,360,000	426	175,032,000	429	207,840,000	433
Transport	26,997,385	95	34,560,000	96	39,576,000	97	47,040,000	98
Gross Profit	76,990,735	271	118,800,000	330	135,456,000	332	160,800,000	335
Production cost	28,847,547	101.5	33,361,580	92.7	36,239,883	88.8	40,700,065	84.8
Fixed	15,179,964	53.4	16,356,300	45.4	16,967,232	41.6	17,614,800	36.7
Contract Labour	2,146,548	7.6	2,275,332	6.3	2,411,856	5.9	2,556,564	5.3
Depreciation	1,712,496	6.0	2,312,496	6.4	2,312,496	5.7	2,312,496	4.8
Weighbridge	230,064	0.8	230,064	0.6	230,064	0.6	230,064	0.5
Salaries	7,459,224	26.2	7,906,776	22.0	8,381,184	20.5	8,884,044	18.5
Site services	3,374,076	11.9	3,374,076	9.4	3,374,076	8.3	3,374,076	7.0
Stationary	75,300	0.3	75,300	0.2	75,300	0.2	75,300	0.2
Telephone	182,256	0.6	182,256	0.5	182,256	0.4	182,256	0.4
Variable	13,667,583	48.1	17,005,280	47.2	19,272,651	47.2	23,085,265	48.1
Consumables	116,515	0.4	147,599	0.4	167,279	0.4	196,799	0.4
Electricity	1,925,935	6.8	2,439,754	6.8	2,765,054	6.8	3,253,005	6.8
Forklift	708,317	2.5	897,288	2.5	1,016,927	2.5	1,196,384	2.5
Maintenance	1,751,748	6.2	2,219,096	6.2	2,514,976	6.2	2,958,795	6.2
Overtime	2,806,513	9.9	3,555,260	9.9	4,029,295	9.9	4,740,347	9.9
Packaging Material	3,314,599	11.7	4,198,899	11.7	4,758,752	11.7	5,598,532	11.7
Steam	2,626,015	9.2	3,326,608	9.2	3,770,156	9.2	4,435,477	9.2
Vehicle cost	265,813	0.9	28,061	0.9	31,802	0.9	448,973	0.9
Water	152,128	0.5	192,714	0.5	218,410	0.5	256,953	0.5
Other fixed cost	21,188,638	74.6	22,672,272	63.0	23,533,872	57.7	24,112,272	50.2
Admin	7,648,020	26.9	7,648,020	21.2	7,648,020	18.7	7,648,020	15.9
Advertising	1,200,000	4.2	1,320,000	3.7	1,500,000	3.7	1,620,000	3.4
Bad debt	568,366	2.0	900,000	2.5	1,101,600	2.7	1,440,000	3.0
Laboratory	1,500,000	5.3	1,500,000	4.2	1,500,000	3.7	1,500,000	3.1
Purchasing	818,388	2.9	1,370,388	3.8	1,370,388	3.4	1,370,388	2.9
Sales cost	4,953,864	17.4	5,433,864	15.1	5,913,864	14.5	6,033,864	12.6
Technical	2,700,000	9.5	2,700,000	7.5	2,700,000	6.6	2,700,000	5.6
Technology	1,800,000	6.3	1,800,000	5.0	1,800,000	4.4	1,800,000	3.8
Total Operating cost	50,036,185	176.1	56,033,852	155.6	59,773,755	146.5	64,812,337	135.0
Operating profit	26,954,549	94.8	62,766,148	174.4	75,682,245	185.5	95,987,663	200.0
Income Consultations	1,593,648	5.6	1,593,648	4.4	1,593,648	3.9	1,593,648	3.3
PBIT	28,548,197	100.5	64,359,796	178.8	77,275,893	189.4	97,581,311	203.3
Interest	1,857,396	6.5	2,577,396	7.2	2,577,396	6.3	2,577,396	5.4
Nett profit before tax	26,690,801	93.9	61,782,400	171.6	74,698,497	183.1	95,003,915	197.9

4.6 Current and predicted Balance Sheet

	6 MONTHS	YEAR 1	YEAR 2	YEAR3
ASSETS				
Non-current assets	20,945,639	18,633,142	16,320,646	14,008,150
Property, plant and equipment	18,236,174	15,923,678	13,611,182	11,298,686
Investment in joint venture	2,709,464	2,709,464	2,709,464	2,709,464
Current assets	118,135,495	150,095,736	198,400,371	229,859,724
Inventory	28,594,500	35,659,800	40,793,676	48,445,320
Trade and other receivables	81,889,500	102,872,154	95,185,244	113,039,080
Cash	7,651,495	11,563,782	62,421,451	68,375,324
Total assets	139,081,134	168,728,878	214,721,017	243,867,874
EQUITY				
Capital	51,052,291	63,725,011	98,816,610	111,732,707
Share capital	100	100	100	100
Share premium	4,999,920	4,999,920	4,999,920	4,999,920
Loan shareholders	6,000,000	6,000,000	6,000,000	6,000,000
Accumulated profit	40,052,271	52,724,991	87,816,590	100,732,687
LIABILITIES				
Non current liabilities	21,061,323	21,061,323	21,061,323	21,061,323
Long-term borrowings	21,061,323	21,061,323	21,061,323	21,061,323
Current liabilities	69,299,294	83,942,544	94,843,084	111,073,844
Short-term borrowings	1,616,091	1,616,091	1,616,091	1,616,091
Trade and other payables	60,988,250	75,631,500	86,532,040	102,762,800
Provisions	6,694,953	6,694,953	6,694,953	6,694,953
Total liabilities	90,360,617	105,003,867	115,904,407	132,135,167
Total equity and liabilities	141,412,908	168,728,878	214,721,017	243,867,874

Notes on the financial statements:

- The margins used currently and in the predictions are lower than the historic margins and are more realistic and market related.
- The return on the investment with a conservative approach on the volume achievement illustrates a payback of less than one year on the investment of R6,4 mil.
- The Investment is included in the balance sheet under equity as R6,0 mil.
- The cash flow is positive from the onset and continues to grow.
- The expected 30 000 tons predicted in the 6th month shows a return of above R5,0 mil and indicates a return in the first year higher than the original total asset purchase value.

5. DEFINE OBJECTIVE

- Reduce operational cost to R126 per ton.
- Ensure return on investment for R6,400,000 in year one.
- Develop market and create capacity for shareholders volume capacities.
- Increase market and volume production to 40 000 tons per month over 2 years.
- Increase volume and market to 30 000 tons in one year.
- Increase quality to above 90 % acceptance level.
- Identify skill shortages and training requirements for employees.

6. BUSINESS PRINCIPLE:

The expected return on investment is generally accepted as a 22% return on investment. At 22% return on an investment of R30,000,000 the return should be around R6,400,000. The operation should be able to produce 40,000 tons of product per month at peak efficiency. This translates to a total of almost 500,000 tons of product per annumn. At the expected return should be R13.2 per ton. The industry average on margins is around R200 per ton.

The cost to produce = Cost of raw Material + Cost of Transport + Cost of Production.

Generally the first two parts are seen to be a static portion of the business. The difference in approach is that the cost of raw material has two components with various degrees of potential. These are established by setting a standard cost for marker related raw material prices and a re-formulation cost during the quarterly price structure. Transport, and raw material price gains against standard pricing as well as reformulating cost are all components with additional potential for profit in a quarterly pricing structure.

For the purpose of this project the latter 3 components will not be part of the developments for the operational efficiencies of the plants. These 3 components are used to set measurable objectives to motivate the procurements, technical and logistics departments to generate additional profits in their respective profit centres.

Therefore the profit in the bottom line depends on Profit (Margin; Raw material costs; Re-formulation; Transportation)- Production costs.

7. FUNCTIONAL ANALYSIS

To manage a Feed Mill operation successfully the following four departments need to function efficiently and needs to be controlled properly.

1. Administration / Financials
2. Raw Material Procurement
3. Feed Formulation
4. Production

My Analysis so far is that the control and efficiency's are poor in some cases non-existent at Senwesko Feeds. No formal procedure manual could be found. The draft of a procedure manual will have to be prioritized. The manning and management structure are not suited for the operation. The restructuring will be in two phases, phase 1 (top level) will be implemented soon with phase 2 to follow at a later stage. A new and optimized structure of phase 1 has been designed and the implementation will need the assistance of the Human Resources Department of Chubby Chick. The new structure is optimized for the operation and not to accommodate the employee's, it now needs to be populated with the right people from within and the employee's not suited for the positions available will be redundant. The vacant positions will then have to be recruited from outside. (See attached organogram charts).

With my limited discussions with Country Bird it is clear that the basic principals of an integrated business are not applied. The principal with two share holders are more difficult to manage but still the same. The principal of a market related price and not a fixed margin are clear and supported by everybody. The principal of determining a market related price need to be understood, this is a price that Senwesko Feeds are selling feed into the open market and not the lowest quote from the opposition as they may have hidden agendas. No farmer or business will buy feed from us if we are not market related.

In an integrated business it is financially important that all volumes of feed be bought internally. The average gross margin in the feed milling industry is R400 per ton of feed inclusive of raw material profit. This imply that the share holders give R400 to their opposition with every ton of feed bought from them hence losing it as profit in their own operation, this is substantial even if they have to split the profit. This is without taking into consideration that you strengthen their position in the market.

The argument that you need to have opposition feed as a measure does not carry weight with me. We don't need feed from the opposition to tell us if we have a problem with the feed, the animals will show us. KPI's must be set and the feed should be designed to supply the bird with nutrients to achieve this at the lowest cost per kg of meat per cents of feed cost. If these KPI's are not met an investigation will tell whether it is feed or other factors.

The above points are important to optimize profits for the shareholders and needs the support of the shareholders for implementation.

The situation with the North West Mill needs to be resolved as soon as possible. The current situation makes it very difficult to optimize and manage the business. My proposal will soon.

Herewith my findings so far at the Senwesko Feeds Mill.

Administration

- Office hours for employees are different and there are 3 groups:

  Group 1 Start: 07H30; Lunch: 0.5 hours; Close: 16H00
  Group 2 Start: 08H00; Lunch: 1 hours; Close:17H00
  Group 3 Start: 08H00; Lunch: 0.5 hours; Close: 16H30

  As seen in the above, it is impossible to control. Working hours in the office have been standardized.

- There is no control on cell phone expenses, the contracts are on the Company's name and no authorization on expenses in place. An example is a cell phone on contract that has been locked in the safe sins the employee has resigned 12 months ago and being paid for by the company every month. This incident has cost the company R975.00 per month for the past 12 months. This has been rectified and all cell phone contracts' on Senwesko Feeds name has been cancelled. Employee's who qualify for cell phone allowances will take out a contract in their personal capacity.

- No authorization levels exist for day to day expenses and department heads authorize any amounts. This has been changed and a temporary rule is in place until proper levels has been determined. All expenses are now authorized by the Managing Director.

- The car subsidy is not standardized and varies between employees. He claims for kilometres travelled are impossible to control and are open for abuse. A new policy on re-imbursement for company kilometres travelled will have to be implemented. I am currently busy formulating the new policy. The implementation of the new policy might be difficult as it can change the conditions of employment of the employee. The assistance of Dr. Callie Van Der Merwe of Chubby Chick will be needed with the implementation.

- The fees paid to Senwes for services are absorbent and no control exists. These charges are R679 614.00 per month. This includes R86.00 per employee per month for the clinic, R192 087.00 per month for gardens, roads and sewerage. R9 561.00 for rental of the telephone switchboard. R487.00 per month for fax rental. R8.94 for every time a vehicle is weighed on the weighbridge. These costs will have to be investigated and changes made to the way we operate. Clarity on property and equipment ownership needs to be resolved as soon as possible. This need to be prioritized.

- Security is non-existent at the entrance and I question the fees we pay for the service. This is a tremendous problem with more than one company occupying the same property.

- The attendance clock system are out of order for an unknown period and time keeping and over time are done manually and are open for abuse. The system will have to be repaired as soon as possible.

Raw Material Procurement

- The procurement of raw material is the most important function of a feed milling business as this contributes 80% of the total cost. You get this wrong, you are out of business.

- The procurement department in Senwesko Feeds is not managed and operated in a way to enable Senwesko Feeds to be competitive in the market. This can be seen in a current raw material price comparison of Senwesko Feeds against the market. I want to emphasize our bad position against the market and it is just short of impossible to improve a situation like this in an upward market like we are in now. The cover we have is also to short and cannot continue. This is a call for urgent and drastic action.

- To be competitive in the market with such high raw material prices, margin hence profit is sacrificed to get volumes and the company cannot show a profit.

- Decision making and controls can not be left to one individual. It is important to remember "it doesn't matter how clever no one is as clever as all of us together".

- A proper procurement strategy needs to be drafted and implemented with the necessary procedures.

- A procurement committee needs to be established and monthly meetings need to be scheduled to analyze the markets and strategy's discussed with clear mandates to the Procurement Department. The input of outside specialists is vital in these meetings. A draft strategy has been compiled and will soon be finalized. This strategy includes the amount of forward cover as this is vital to enable you to price your feed forward for a period. It could be disastrous to price your feed forward without cover of raw materials.

- The raw material procurement department needs to be structured as a profit centre with its own profit target. Raw materials need to be procured at below market prices and transferred to the factories at market related prices.

Feed Formulation

- The optimization of feed formulation is very important to optimize profits without jeopardizing animal growth. A small mistake in the formulation can result in big losses to the company.

- I did not spend a lot of time analyzing this department as there is more pressing issue to attend to.

Production

- The production plats are in a poor state and the lack of good and planned maintenance is very obvious but more so in the Senwesko Feed Mill.

- The design of the Senwesko Feed Mill is problematic and urgent attention will be given to this. A proposal with costs to change this will be submitted to the board in the near future.

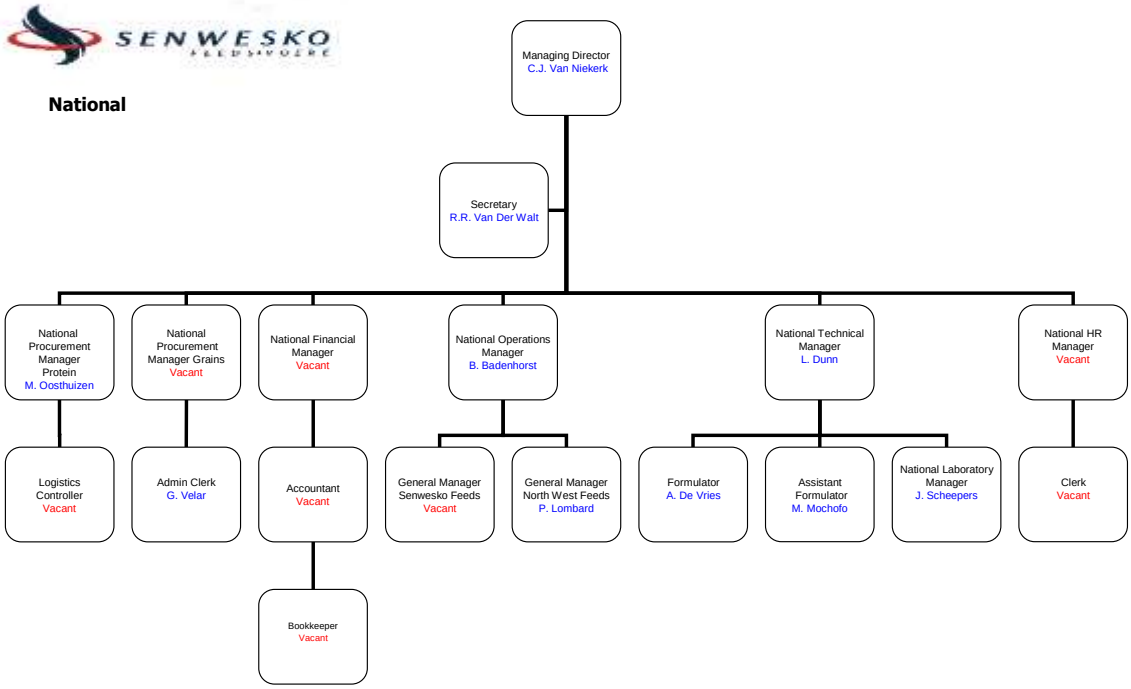
- Standardization of products also needs attention.

- Efficiency's in the factories will be attended to soon and the appointment of a National Operation's Manager to assist in this is important.

- The truck tractors in the delivery fleet belong to the contractor and the tankers belong to Senwesko Feeds. We are responsible for the maintenance, cost and insurance on the tankers. This is a very risky situation as you have no control over cost and the treatment of your assets. This need to be investigated and consideration must be given in selling the tankers to the contractor with the next tender process when the current contract expires.

8. STRUCTURE AND ORGANOGRAMS

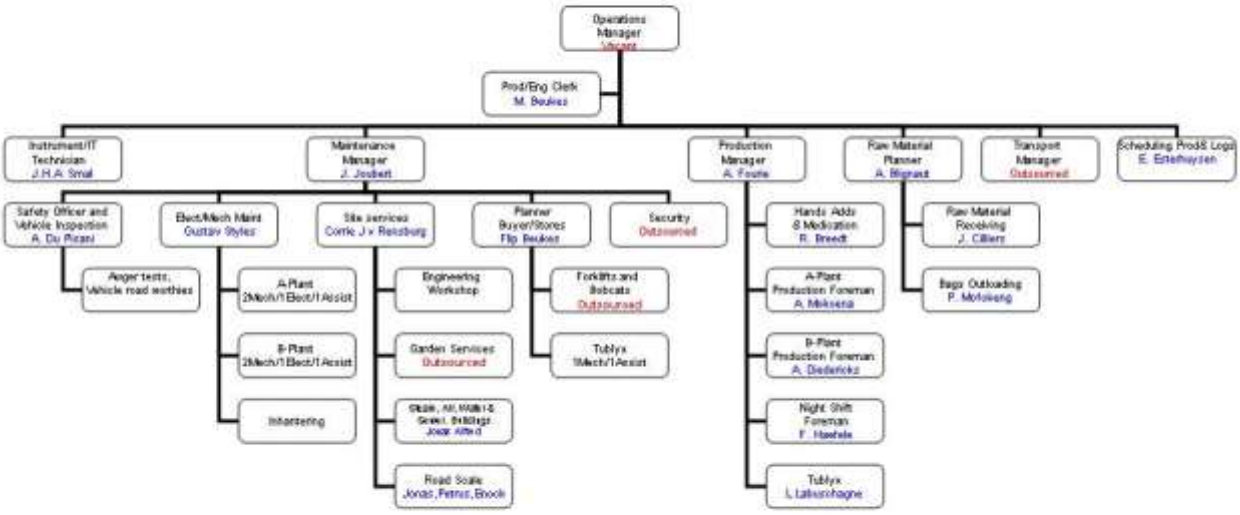
National



APPROVED BY: .....

DATE: .....

Operations

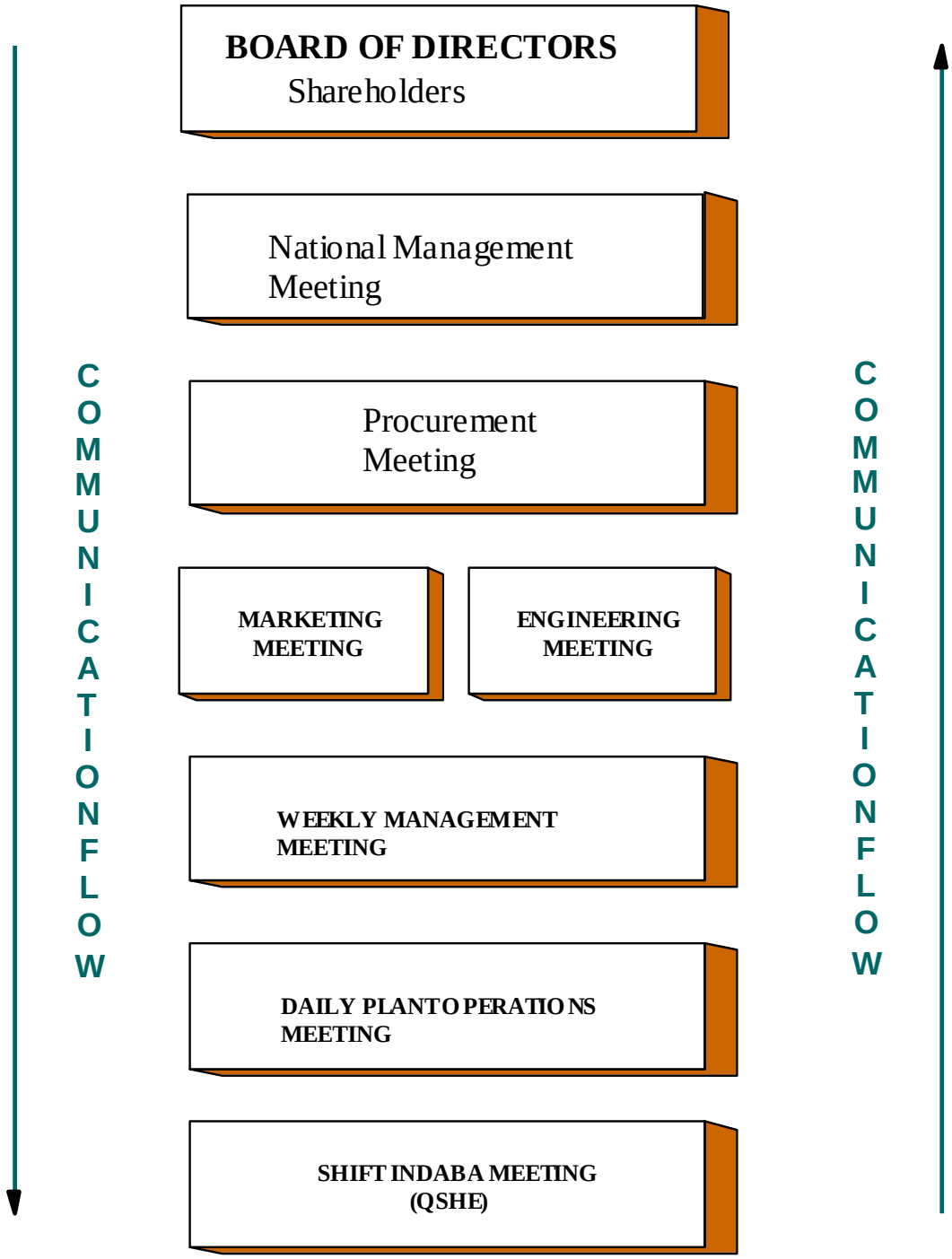


APPROVED BY: .....

DATE: .....

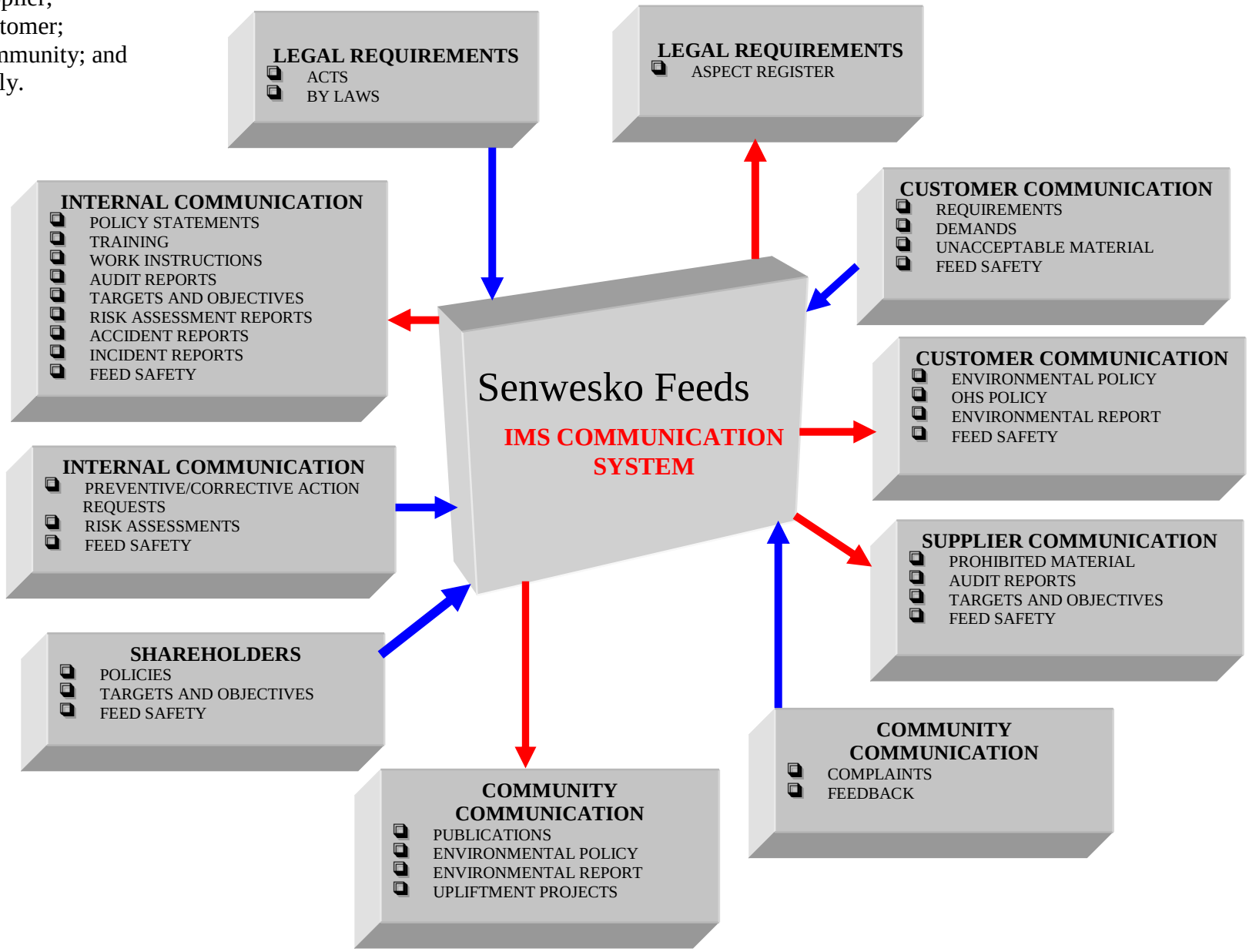
9. COMMUNICATION

Communication is regarded as a very important aspect in the management of the Senwesko feedmill. This is formalized through an integrated management system. The diagram illustrates the communication flow and the various levels of interaction.



The figure below describes the communication system of IMS aspects to:

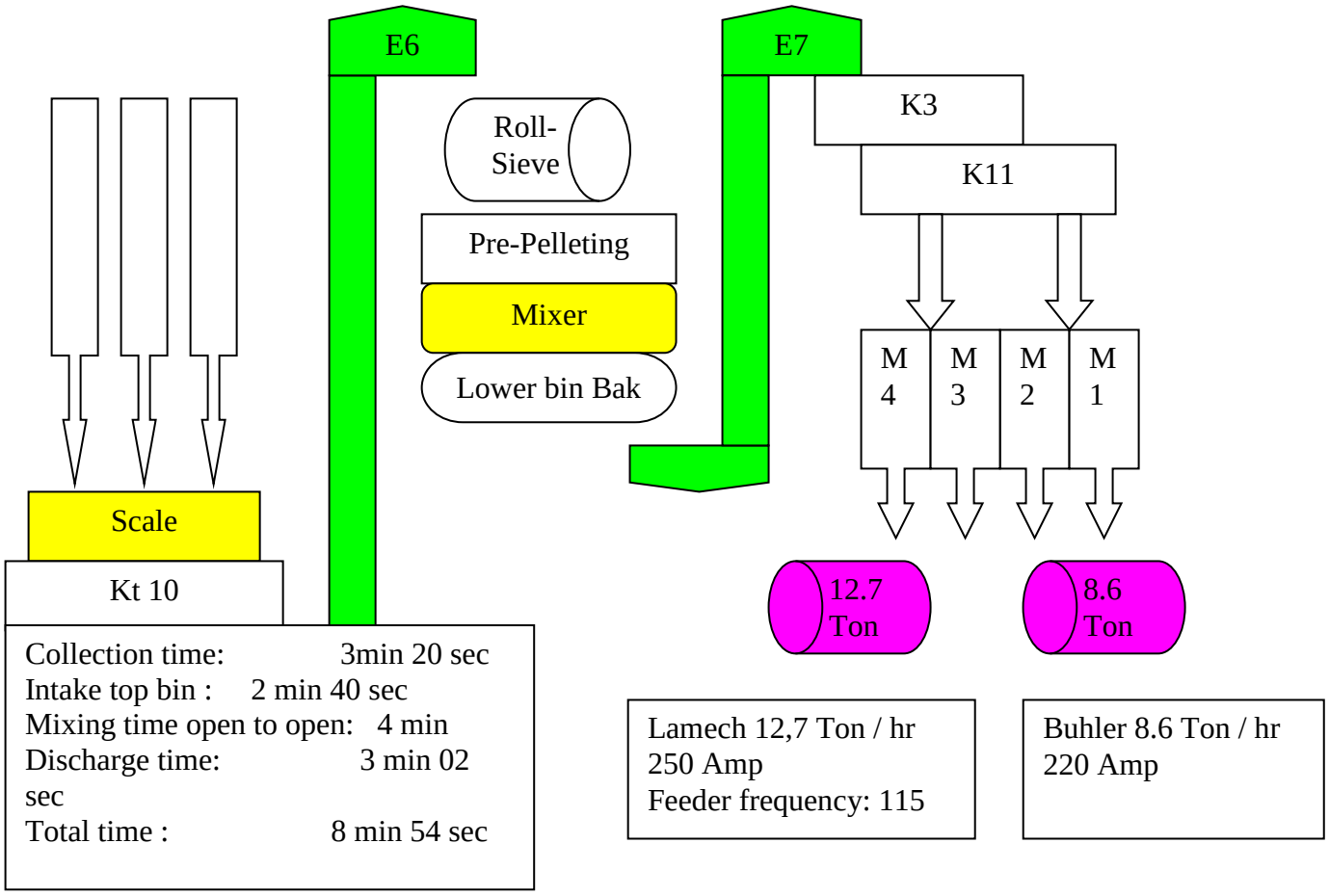
- The supplier;
- The customer;
- The community; and
- Internally.



10. OPERATIONAL ISSUES:

10.1 Machine capacities

A-Plant:



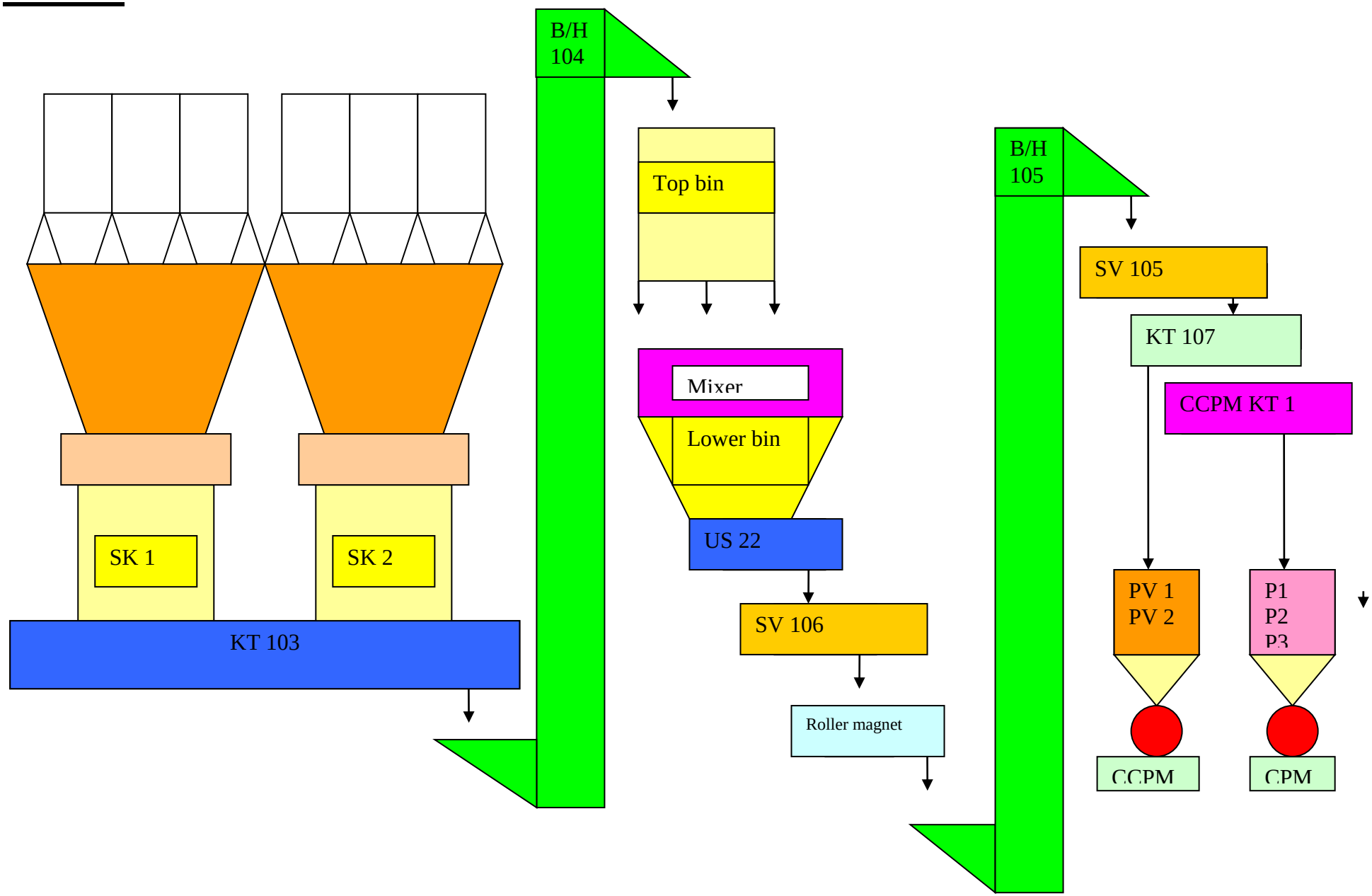
Collection time: 3min 20 sec
Intake top bin : 2 min 40 sec
Mixing time open to open: 4 min
Discharge time: 3 min 02 sec
Total time : 8 min 54 sec

Lamech 12,7 Ton / hr
250 Amp
Feeder frequency: 115

Buhler 8.6 Ton / hr
220 Amp

21,3 Ton / hour

B-Plant


B/H
104
Top bin
Mixer
Lower bin
US 22
SV 106
Roller magnet
SK 1
SK 2
KT 103
B/H
105
SV 105
KT 107
CCPM KT 1
PV 1
PV 2
P1
P2
P3
CCPM
CPM

B-Plant:

Product scaling - 1min. - 50 sec.

Intake to top bin - 5min. - 02 sec.

Mixer:open to open - 5min.

Discharge time - 5min.

Total time(1 – 4) - 14min. – 25 sec.

Poultry. 12 batches / 24 T/hr

Ruminants. 6 batches / 12 T/hr

Pelleter:CPM

Motor 300 Amps

Feeder speed 57 Hz

35.8 Kg in 10 sec.

12 T/hr

10.2 Capital planning and projections

A plant	Original Estimate	Status	Actual used as requested in capital	New Estimate on capital
Buhler reinstall	R 1,500,000.00	Parallel install CPM		
CPM; 315kW; 820 Die; 16-18ton/hr;Double conditioner:Feeder Cooler Crumbler		Meet pelleting capacity in market mix		R 4,800,000.00
Cyclone				R 160,000.00
Structure Design and Draw		Committed R14,000 for drawings		R 14,000.00
Structure				R 250,000.00
Electrical				R 120,000.00
La mac die	R 37,000.00	Maintenance Completed		
Product elevator direction		Maintenance Completed		
Sieves		Maintenance Completed		
Outloading scale	R 75,000.00	Tanker cells, New contract with Unitrans		
Reposition outloading bins				
Structure designs and drawings				R 14,000.00
Structure				R 400,000.00
Product cycle to 3 min programming	R 40,000.00	Completed		
Scale sizes, limestone	R 80,000.00	Maintenance adjusted		
Outloading re-arrange	R 1,200,000.00	Tanker cells, New contract with Unitrans		
Steam installation	R 120,000.00	LaMac and Buhler	R 80,000.00	R 80,000.00
Pre-pelleting capacity	R 120,000.00	New CPM		
	R 3,172,000.00			**R 5,838,000.00**
B Plant				
Lucern blower single blow line		Maintenance Completed		
Adroit programming 3 min cycle	R 40,000.00	Maintenance Completed		
Scale sizes Salt and MCP	R 160,000.00	Maintenance Completed		
Outloading bins scale	R 75,000.00	Tanker cells, New contract with Unitrans		
CPM Die	R 55,000.00	Maintenance Completed		
Screw feeder 105		Maintenance Completed		
2 Tons in 3 Ton mixer		Formulation		
500kg independent line	R 400,000.00	Planned		
Cotton scale deflector		Maintenance Completed		
Maize hammer mill. Housing and beaters	R 20,000.00	Maintenance Completed		
Steam installation	R 120,000.00	CPM completed	R 70,000.00	R 70,000.00
Pre-pelleting capacity	R 120,000.00	Planned on new scheduling		
	R 990,000.00			**R 70,000.00**
Tubs				
Connect bins	R 80,000.00	Planned for maintenance		
Standby pipes		Maintenance Completed		
Lagging and heating	R 140,000.00	Planned		
Quality of CMS VS Road cms		Quality check		
Tub price		R18,00 to R13,00 completed		
Stabilize Mixer/Scale (750kg)		Replaced load cell		
Flow meter on mixer		Planned		
	R 220,000.00			**R 0.00**
Medicine store				
Re arrange, scales, shelves counters etc	R 1,200,000.00	Quoted		R 1,200,000.00
Devide and basic structures		Committed R80,000 from scrap account		
	R 1,200,000.00			**R 1,200,000.00**
Compressor				
600cfm	R 600,000.00	Installed	R 360,000.00	R 360,000.00
Compressor house build	R 37,000.00	Almost complete	R 37,000.00	R 37,000.00
	R 600,000.00			**R 397,000.00**
Raw Material intake				
Extend scale to manage interlinks	R 75,000.00	Cell on tankers		
Flow of traffic		Manage		
Intake capacity				R 200,000.00
	R 75,000.00			**R 200,000.00**
New Developments Viljoenskroon				
MaCains mass storage floor concrete		990m squared		R 150,000.00
Access control				R 80,000.00
7 Ton Boiler refurbish				R 250,000.00
Game fence		550m, one side of 4 sides only		R 25,000.00
Lapa and facilities				R 200,000.00
				R 705,000.00
Nutri feeds Bloemfontein				
Move weigh bridge				R 800,000.00
Install Outloading bins				R 600,000.00
Conveyor systems				R 1,200,000.00
Set of 10 ton batching bins				R 600,000.00
Plant layout and 10-12 ton/hr pelleting capacity		PTN Based		R 2,400,000.00
Upgrade hammer mills				R 200,000.00
Electrical Steam supply				R 300,000.00
Steam lines				R 240,000.00
Electrical supply				R 150,000.00
Roof modifications				R 200,000.00
				R 6,690,000.00

10.3 Basic concepts and understanding

10.3.1. Good manufacturing procedures

The manufacturing process need to be adapted to compensate for the following procedures and requirements. Many of these issues are not addressed some have been addressed partially. However the prevailing objective is for the plant to continuously strive towards achieving these standards

Food safety hazards & HACCP

Effective measures have been put in place to eliminate, minimize or control food safety hazards.

Feed handling areas and surfaces are kept clean and free from unnecessary materials, goods or items that do not form an integral part of the operation and that will have a negative effect on the general hygiene of the operations.

Specific food safety hazards in the feed handling process were identified and analysed during the HACCP study. Control measures have been put in place to eliminate, control or minimize them.

The following hazards in general pertain to the feed handling processes and every effort has been made to prevent them from contaminating feed:

Contamination by foreign objects, such as glass, metal, string, wire, poisonous seeds, harmful fumes, etc. are prevented from contaminating the system by processing feed in a totally closed system. Where intakes are present care is taken to minimize the risks.

Contamination by micro-organisms and their toxins in quantities indicating gross contamination or lack of sanitation. Hygiene barriers has been put in place to limit contamination of feed by micro-organisms, such as hand washing, separate food handling areas, protective clothing, access control, cleaning, cleanable equipment & utensils surfaces, etc. Ablutions are made available as well as separate canteen facilities. Soap running water and signage are made available in the applicable areas

Contamination with excess quantities of heavy metals, pesticides.

Prevention of excessively infested feed stuffs with parasites. Sampling and tests are conducted at the intake of raw material combined with a visual inspection. Planned cleaning schedules for pesticides control are conducted.

e.g. All glass and glass items should be eliminated from production units whenever possible. The condition of any items constructed from hard transparent plastic must be carefully monitored.

A register of all items made of glass within the production areas storage area, personnel facilities and equipment washing areas shall be compiled. This is to be reviewed regularly to ensure that the list is complete.

The Glass Policy and its procedures must be effectively communicated to every employee. All contractors working on site should be made aware of the policy.

In the event of any breakage or damage a "Glass Incident Log" should be completed which record all actions taken since the breakage was first identified. All employees must be required to report immediately to management any broken or damaged glass however trivial it may seem.

All equipment, product and the area within a 10-meter radius of the breakage should be cordoned off for search for fragments of glass and thorough cleaning.

All containers used in the processing operation must be clearly identified by a colour coding system.

Areas must be demarcated as per the colour code system to ensure that no equipment from one area can be taken to another.

No animals other than guide dogs will be allowed onto the premises.

HACCP is a way for the food industry (feed industry) to control and prevent problems and ensure safe food (feed) by controlling the production process from beginning to end, rather than detecting problems at the end of the line. HACCP is widely recognized by scientific authorities and international organizations and is used extensively in the food industry to produce products in compliance with health and safety requirements.

We made use of the 7 HACCP principles specified by Codex Alimentarius and therefore used this model to analyse our feed handling processes to determine at what points food safety hazards might exist that could affect the safety of our products. The points that were found to have a significant impact on the safety of the consumer, has been called critical control points (CCPs). These CCPs are managed according to the 7 HACCP principles. The points that were found to have an insignificant impact on the safety on the consumer but a significant impact on our client, the animal, are managed as operational PRPs, meaning control points specified by our QMS.

The requirements of ISO 22000 were used to design our feed safety management system.

Location and environment

The manufacturing facilities are situated in a well established industrial sites and is therefore situated in an acceptable environment for the working of feed. The buildings are owned which allows the management of a branch a full authority for maintenance, renovations, structural changes and upgrading. The yards of the manufacturing facilities are mostly covered with concrete surfaces. The angle of the concrete surfaces, especially close to facility entrances, are so designed that stagnant water is eliminated.

Building structures and design

The roof of the manufacturing facilities are constructed of steel and fibreglass and is therefore waterproof.

Due to the type of industry, most of the manufacturing facilities do not have ceilings but is made of a material that is cleanable.

The temperature in the food handling areas is not specifically controlled as most of the manufacturing areas are managed under ambient temperatures. There is therefore a limited possibility for the build up of condensation on ceilings and working areas due to ambient temperatures and no specific heat or cooling processes used during manufacturing.

The light fittings used in general in this industry is not covered, but due to our commitment towards the reduction and / or elimination of food safety hazards, procedures has been put in place (capex) to replace open light fittings with properly covered safe light fittings.

Walls are constructed of steel, concrete or fibreglass sheets and are therefore easily cleaned. Windowsills inside the feed handling areas are small enough to prevent staff to use it for the storage of inappropriate materials. Doors from are steel or wooden construction

The feed handling areas are fitted with windows for lighting and ventilation purposes. The windows were initially installed with the purpose of being opened when needed. Procedures has now been put in place to ensure that windows that can open be fitted with fly screens to prevent the entrance of insects and birds. Further procedures have been put in place to manage any glass breakage incidents in the feed handling areas. All plants have been fitted with aspiration systems to extract dust generated from the transfer and processing of the raw material.

In general, feed handling areas has been divided into different areas and areas are physically separated by walling. The following areas of feed handling exist in the plant:

Raw material storage – handles the receiving and storage of raw materials. This could be in bulk, therefore silo storage, or it can be in smaller quantities and therefore stored in the raw material storage areas.

Laboratory – handles the sampling and testing of feed products for the facility.

Processing area – handles the actual processing of the feed products.

Packing areas – handles the packaging of the final products into different bag designs at the bagging plants, as required by customers.

Bulk dispatch areas – handles the loading of bulk tankers for direct distribution to the customer.

Dry stores – storage of some dry raw materials, packaging materials and labels.

Medicine rooms – storage and preparation of medicine and pre-mix products required for certain products

Workshop areas have demarcated areas for redundant material as well as for scrap

Waste material and production waste is stored in a demarcated area for removal by approved waste removal contractors.

Access control

Access control at the manufacturing plant are planned to be managed through electronic controlled access control systems. However the plant are working towards electronic access control and depends on manual access control by security at the main entrance. Visitors are required to complete a visitor's register at the security entrance or at reception.

Temporary facilities

Should the need arise to make use of temporary facilities for the handling or storage of feed products, it will be managed through the operations manager in the plant. The operations manager would in such an event arrange with the bulk-transport contractor for storage in bulk containers.

Equipment management

Every effort has been made to ensure that current and new equipment and surfaces used in the feed handling areas and those in particular in contact with feed, are:

- Non-toxic and not carrying over any taints
- Suitably durable
- Corrosion resistant and rust free
- Free of paint or other properties that may contaminate the product
- Easy to maintain or dismantle for maintenance and cleaning purposes
- Smooth surfaces that is easy to clean
- Food lubricants used where moving parts of machinery could get into contact with feed and/or lubrication parts situated in such a way that feed can not be contaminated by any lubricants. Normal lubricants are used in areas where feed can not be contaminated.
- Equipment without corners, bends, crieves, cracks or dead ends that can not be cleaned

The deterioration of equipment is possible and will be monitored through the maintenance programme. Feed are produced in a closed environment and there are therefore a limited exposure of feed to the environment during its handling.

The feed mills are engineer designed plants and the feed are handled in such a way that it is protected against possible cross-contamination from activities other than feed stuffs being handled.

Personnel hygiene management

Health status, illness and injury

The health status of feed handlers will be managed by the shift supervisors.

The health status of employees will be determined before handling feed. A certificate by a medical practitioner stating that there is no impediment to employment as a feed worker will be required. Such certificates will be kept by the occupational nurse on site.

Feed handling staff will not be allowed to handle feed that has:

- On his/her body a suppurating abscess, sore, cut, abrasion unless covered with a moisture proof dressing which is firmly secured to prevent contamination of food.
- Who is / suspected of suffering from / being a carrier of a disease / condition in its contagious stage that can be transmitted by food.
- Carriers of Salmonellosis, Shigellosis, tapeworm or any other type of helminthiasis or vegetative or cyctic amoebae.

Feed handling staff should immediately report the disease / condition to the occupational nurse. Only when a certificate by a medical practitioner stating that such person is fit to handle feed is submitted may then be permitted to handle feed again. Conditions which has to be reported are:

Jaundice

Diarrhea

Vomiting

Fever

Sore throat with fever

Visibly infected skin lesions (boils, cuts, etc)

Discharges from the ear, eye or nose

A medical certificate will be required for any absence due to illness lasting longer than three working days.

Personal cleanliness

The following personal cleanliness rules will apply:

- Protective clothing, such as overalls or overcoats that completely cover personal clothes up to the knee, aprons if applicable, clean head gear covering all hair and proper footwear, clean boots, has to be worn by all food handling staff. Such clothing has to be clean and neat when the person begins to handle feed.
- Feed handling staff is not to wear any jewellery, watches, pins or adornment that could come into contact with feed.
- Feed handling staff's fingernails are to be kept short, hands clean and no nail varnish.
- Feed handling staff has to wash their hands with soap and water each time they enter the processing area or each time work is resumed, for example, after smoking, eating or visiting the ablution facilities. A disinfection soap will be used in the ablution facilities for the washing of hands.

Overalls or overcoats of feed handlers will be issued and will be washed. Feed handling staff are not allowed to take home their overalls or overcoats for washing.

Personal hygiene

Medical records must be kept by the clinic sister of all workers. Records must be readily available for inspection.

All a personnel must receive education on personal hygiene.

Every new employee must receive and sign for a hygiene booklet before entering the plant.

Protective clothing

People coming into direct contact with feed packing materials must adhere to the following:

- All personal clothing must be covered with protective clothing.
- Clean protective clothing must be worn daily in demarcated areas.
- They must be left in the plant in suitable handing areas during tea and lunch breaks.
- No personal items may be stored inside the plant.

Skills development

The identification of training needs and the management of skills development are managed through the HR procedures and the relevant nominated staff.

Staff working with feed will be trained in safe feed handling practices. Feed handlers jobs / managers jobs / HACCP team / CCPs / GMPs / managers or supervisors have knowledge to judge potential risks & take necessary action to remedy deficiencies

Train on:
Feed safety roles & overall awareness.
Be aware of their role & responsibility in protecting feed from contamination or deterioration.
The nature of feed and its ability to sustain growth of pathogenic or spoilage micro-orgs.
Manner in which feed is handled and packed, including the probability of contamination.
Extent and nature of processing or further prep before final consumption.
Conditions under which feed will be stored.
Expected shelve life.
HACCP principles & related standard.
HACCP system requirements and its management.
GMPs and related procedures.

Visitors

Visitors to the feed handling areas will be required to comply with the personnel hygiene management requirements described above.
Visitors will further be required to complete the visitors form prior to entering the feed handling areas.
All visitors and contractors must adhere to the protective clothing policies for the company employees before entering a plant.
A visitor's declaration form as well as a confidentially form must be signed before entering the plant.

Feed handling and process control

Identification and traceability

Machine capability and calibration

Process controlled by production and quality/technical. The status and credibility of the machinery and any measurement equipment has to be beyond doubt and should be validated by daily quality checks on pellet quality and load qualities.
The calibration – mass pieces, temperature gages / thermometers / scales are entrusted to a person in maintenance and weekly and monthly records are kept.

All measuring equipment must be calibrated and/or verified according to a specified frequency.
All records must be available.
An equipment register must be kept (history card).
The following equipment must be calibrated/verified and maintained:

All thermometers	Metal detectors
Verniers	Weighbridge
Test weights	Scales
Volt & Amp meters	

Water and steam

Water

It is the responsibility of the Regional QA Manager to ensure annual water quality tests are performed.
It is the responsibility of the Maintenance Manager to ensure that plant water is filtered through a 10-micron water filter.

The regions must ensure that only potable water is used in the processing plant.
The testing and required standards are described in the "Quality of Domestic Water Supply Vol. Assessment Guide, 2nd Edition 1999".
Sample points will be the municipal mains supply a non-chlorinated water inlet in the processing plant and a reference sample from the laboratory tap.
Water is to be tested at least once per month for micro-organisms and annually for chemicals.
Records to be kept on file by the maintenance manager.
The sample for testing must be drawn from the plant.
Annual water testing must include Total Plate Count, Coli forms, E.coli, Nitrates/Nitrites, lead and mercury, off flavours and odours and the reports are to be kept on file. An approved independent laboratory will do this test.
Water comes into direct contact with the birds at various stages in the process.
It is also used as an ingredient in injection brines, therefore all water must be filtered.
Maintenance records must be kept on file detailing the date of the last check, the condition of the equipment / filter and the corrective action taken where filters have needed repairing or replacing.

Cleaning

Cleaning and disinfection (where appropriate) activities are managed according to a cleaning schedule. Disinfectant rodent stations and cleaning schedules are on contract and the labour broker supervisor.

The Labour broker supervisor must ensure that:

The cleaning company meets all elements of the sanitation program.

Designated cleaning equipment and chemical storage areas are segregated from food and packing materials and are secure to prevent unauthorised use.

Any office cleaning chemicals, which are not approved for use in plant, must be stored outside of plant and separate to the approved chemicals.

Hygiene surveys are conducted on a weekly basis to monitor the efficacy of the cleaning and sanitising chemicals used.

Pre-operative inspection is documented and includes visual inspection to confirm equipment is clean and sanitised.

Microbiological testing of food contact surfaces is utilised to monitor effectiveness off cleaning and or sanitation procedures.

Ensure cleaning procedures prevent cross contamination of product and cleaned areas.

The cleaning company meets all elements of the sanitation program.

Sanitation Program:

The frequency of cleaning.

The responsible position for the task lies with the labour broker supervisor.

Defined methods and procedures for each task (SOP's). Ensure cross contamination does not occur.

Complete list of all cleaning and sanitising chemicals used on site.

Cleaning and sanitising chemical concentrations and applications.

Methods and records of the concentration verification of all cleaning and sanitising .

Chemicals on site:

Automatic systems are routinely calibrated as per manufacturers suggested frequency.

Individual accountability and sign off for each task completed.

Confirmation in writing that each chemical used on site is approved for feed manufacturing plant and or meet regulatory guidelines.

Labels for all cleaning and sanitising chemicals.

Cleaning equipment and utensils are specific to one area.

Training:

The appointed cleaning company must have a training program that must include:

Job skills, job safety and feed safety.

Training is on going (annual basis).

Current training records containing date and names.

Cleaning assignments are based on skill competencies.
Competencies are verified with exit criteria.

Waste control

A separate and confined area has been allocated for the storage of waste outside the facility.
Feed waste will be stored in bulk bags and regular clean-out are planned on tender.

Spillage:

In spite of preventative measures it may occur that the various types of liquid products used in the operation will spill.
Expiration products.
Once a liquid products has expired it will need to be disposed of.
This wastage is often hazardous to the environment and therefore needs to be disposed of in a responsible and safe manner.

Responsibility:

The Supervisor must read the Material Safety Data Sheet and ensure that all necessary measures are taken when clearing the spillage.
The Supervisor must inform the cleaning crew of the hazards of the product and the PPE to be worn when cleaning the product.
Adhering to the safe work procedure, the cleaning crew must mop up the spillage.
The product must be transferred into the flexi-tainer provided for this purpose.
The Maintenance Foreman as well as the safety officer must be informed of the spillage.

Chemical & biological waste at labs:

The need for strict regulations on the prudent practice of laboratory processes, including waste management, primarily arise from a concern, not only for the personal safety and health of the personnel, but also from a concern for feed safety and the environment.

Personnel:

The proper disposal of chemical and other laboratory wastes is the responsibility of all laboratory workers.
They are required to avail themselves of the potential hazards of all chemicals that they use, and biological material that they handle, as well as of the proper means for their destruction and/or disposal.
They must provide sufficient information on the characteristics of the waste material to fit it into the correct channel for disposal.

The Laboratory Manager is accountable for the safe handling and disposal of all materials used at Senwesko.

Waste removal should be done regularly (preferably once a week) to minimise storage of waste at or near the work areas.

No personnel member is allowed to incinerate, burn, bury or dispose of chemicals waste from the laboratory in any manner other than that allowed in this document without the written authorisation of the Laboratory Manager or Senior Laboratory Technologist.

Waste disposal should be considered during the planning stages of each trial experiment, and should, where necessary (for example when new disposal present themselves), be discussed in advance with the Laboratory Manager or Senior Laboratory Technologist.

Waste disposal in the laboratory should be carried out in strict accordance with the regulations stipulated in this document. Deviations are allowed only with the written consent of the Laboratory Manager or Senior Laboratory Technologist.

Disposal procedure in force should be discussed and confirmed at least annually at one of the regular meetings.

General considerations:

Characterise waste according to the five classes that govern the route of disposal:

combustible	explosive
non-combustible	biological

The user must identify chemicals that are prone to deteriorate with time at the time of purchase thereof. Regular checks should be carried out on these and the necessary steps taken for the disposal thereof.

Regularly check the integrity of labels. Re-label only if the identity is beyond doubt. If the identity of the contents is in doubt, the Laboratory Manager should appoint a person to assist in the appropriate disposal procedure.

Ascertain that all reaction mixtures and containers with chemicals are provided with a proper label that will not deteriorate. Take special care when placing containers in a refrigerator or freezer where the humidity is generally high.

Empty and decontaminate all glassware and other utensils (using suitable destruction procedures e.g. hydrolysis, oxidation) before dispatching for cleaning.

Whenever possible and practical, convert very hazardous substances to less hazardous substances (by hydrolysis, oxidation, et cetera). The required procedures must form an integral part of the experimental design.

Consider the possibility of replacing a hazardous reagent or solvent with one that is less hazardous when an experiment is planned.

Place waste destined for removal by an outside contractor only in the containers provided for the purpose and label clearly according to the type of waste, using permanent ink. Store in a designated place.
Label directions or pamphlet inserts, where supplied, must be followed.

Disposal into the sewer system:
Disposals are, with a few exceptions, not allowed into the sewer system.
Only non-hazardous, water-soluble substances, which are biologically degradable, may be disposed of in the laboratory sink, provided it has been sufficiently diluted.
Strong acids and bases should be neutralised (to pH 4 – 9), cooled and diluted with copious volumes of water before disposal into the sewer system.
None of the following may be poured down the drain:

Explosives	Flammable liquids
Heavy metals or their compounds	Toxic mixtures/compounds

Solid or viscous materials that may be cause or lead to obstructions
Substances or mixtures that may react with something else poured down another sink causing toxic or unpleasant vapours or even explosions (for example sulphur plus acid, iodine plus ammonia, silver nitrate plus ethanol, picric acid plus lead salts)
Any material that in any way affects the biological function of the sewerage treatment plant.

Disposal of solid chemical waste:
Clearly label waste containers according to type, using permanent ink.
When in small volume (a few grams), non-toxic chemicals that pose no hazard (see Table 1) may be disposed of through the normal channels for office waste.
Place larger volumes of chemical waste and hazardous chemical solids (for example those listed in Tables 2 and 3), in plastic bags (that are strong enough) within an outer container that is adequately labelled. Separate incompatible materials (see Tables 2 and 3).
Place solid chemical waste (mycotoxin), in containers destined for secure landfill. Store in a designated place until removed.

Disposal of sludge and viscous materials:
Clearly label waste containers according to type, using permanent ink.
Whenever possible and practical, chemically convert hazardous substances to less hazardous substances (for example by hydrolysis, oxidation etc). The required procedures must form an integral part of the experimental design.
Dilute small volumes of water-miscible sludge of low toxicity with large amounts of water and dispose of it into sewer system (waste from Scalar).

10.3.2 Animal nutrition

Feed Sources Cont

5. **Milk Protein Sources**
   - Milk Powder
   - Whey Powder
6. **Calcium and Phosphate Sources**
   - Feed Lime
   - Mono Calcium Phosphate
   - Meat and Bone Meal
7. **Other**
   - Synthetic Amino Acids
   - Fats and Oils
   - Organic Acids
   - Toxinbinders
   - Sweeteners
   - Anti Scouring
   - Vitamin Mineral Premix
   - Molasses

NOORDWES VOERE SENWESKO

2. Nutrient Requirements

1. Nutrient Requirement

- Breed
- Sex
- Environment
- Age
- Health Status

2. Meaning of Nutrient Requirement

- Maintenance
- Growth
- Reproduction
- Health

NOORDWES VOERE SENWESKO

2. Nutrient Requirements Cont

3. Nutrients

- Protein (Amino Acids)
- Energy
- Fat
- Fibre
- Vitamins and Minerals

4. Determine Nutrient Requirements

- Growth Trials
- Computer Growth Models

NOORDWES VOERE SENWESKO

2. Nutrient Requirements Cont

5. **Need for Specific Nutrients**
   - Energy
   - Amino Acids
     - ✓ Lysine
     - ✓ Methionine
     - ✓ Met + Cystine
     - ✓ Threonine
     - ✓ Tryptophan
   - Minerals
6. **Contribution of Different Raw Materials**

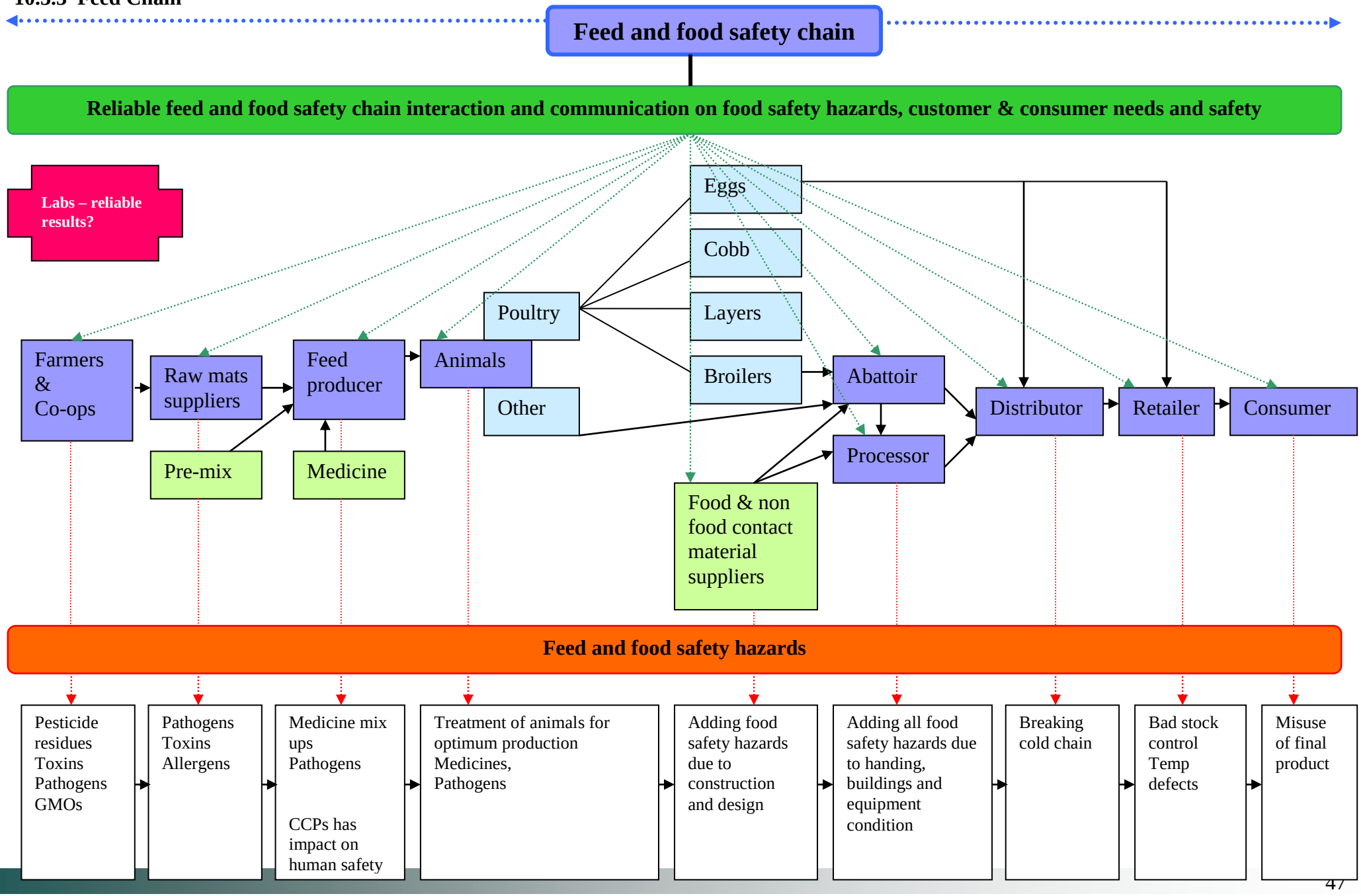
3. Raw Material Analysis

1. **Laboratory**
2. **NIR**
   - Prot
   - Fat
   - Fibre
   - Moisture
   - NDF
   - Starch
3. **ICP**
   - Minerals
4. **Regression Models**
5. **Determine a Matrix**

4. Formulation

1. **Format Formulation Program**
   - ✓ Raw Material File (RM)
   - ✓ Specification File (SP)
   - ✓ Run File (LP)
   - ✓ Least Cost Formulation
   - ✓ Specs and Bounds
   - ✓ Swing Factor
2. **Ratio's of Nutrients**
   - ✓ Amino Acids to Energy
   - ✓ Ratios between Amino Acids
   - ✓ Calcium to Phosphate

10.3.3 Feed Chain



10.3.4 Quality standards in feed industry

The following principle are adopted as developed previously. The quality management system as well as the management system should be designed to incorporate the following criteria:

What are all the standards about?

- Management systems.
- 9001 = Process and product quality.
- HACCP = Product and food safety.
- 22000 = 9001+ HACCP.
- 14000 = Inputs, Process and Waste streams.
- 18000 = Effect of process on humans.

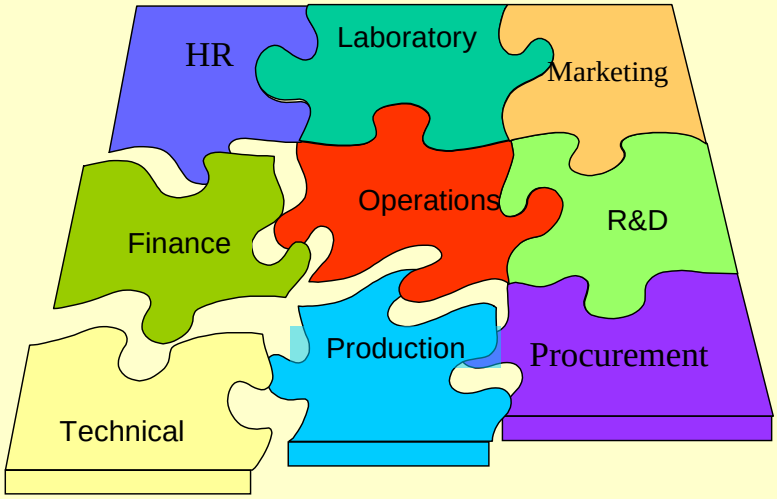
Barries Badenhorst 083
647 9850 1

Purpose of Standardized Management system:

- "..to provide management with a reliable tool to make informed decisions on the business to maximize the return to the shareholders" (Anonymous)

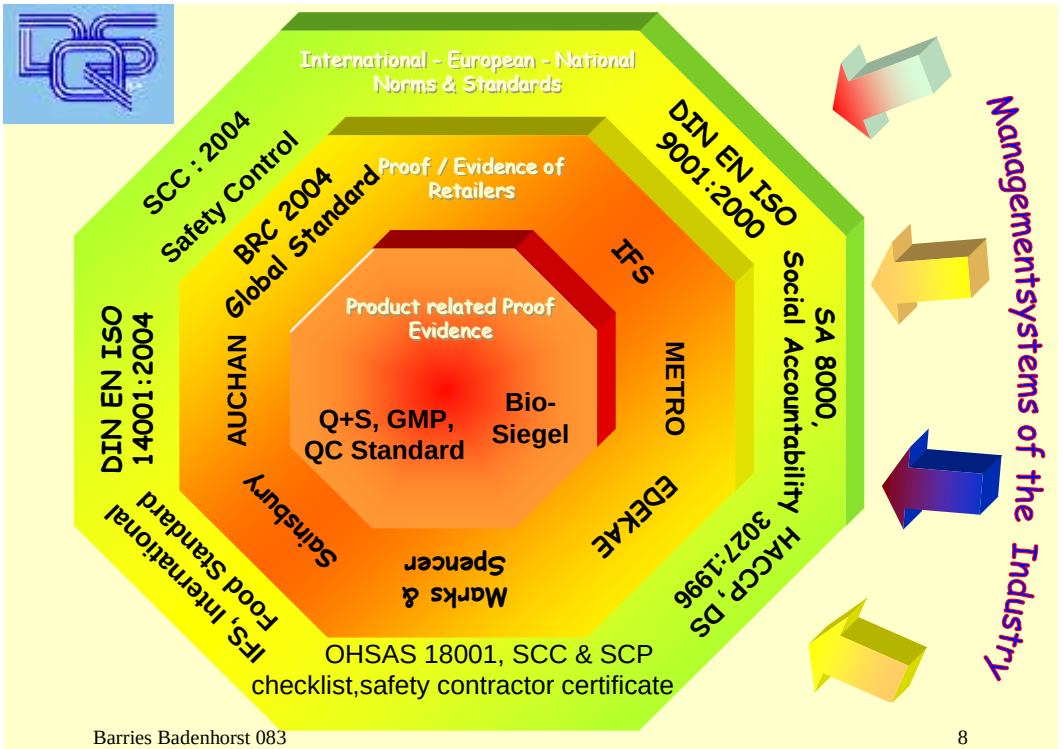
Barries Badenhorst 083
647 9850 3

Management Systems are integrated



Barries Badenhorst 083
647 9850

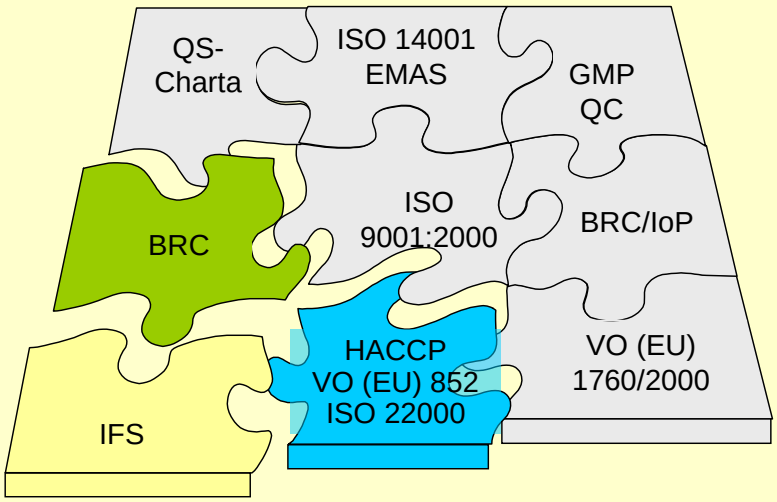
7



Barries Badenhorst 083
647 9850

8

Integrated Standards

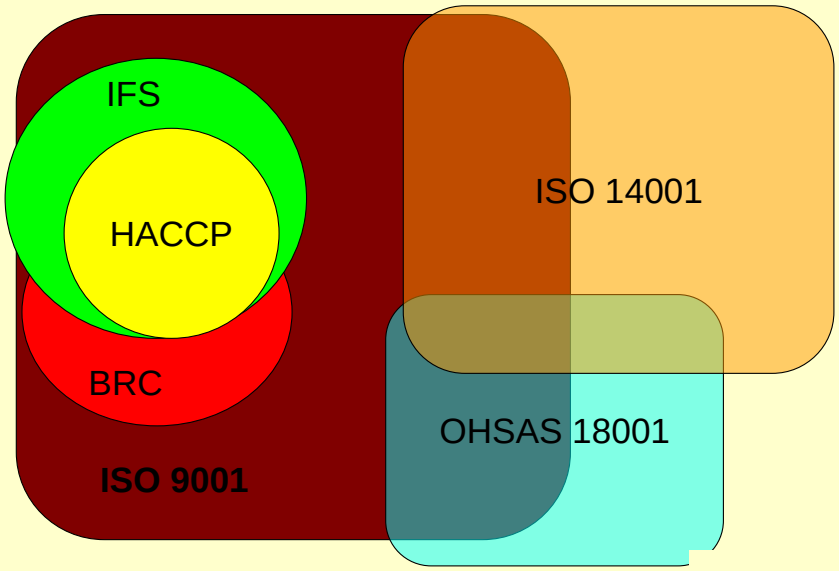


Barries Badenhorst 083
647 9850

9

A basis for the management systems is founded in the ISO 9001 system. This standard form the basis for most related standards in the industry.

Interaction between Standards



Barries Badenhorst 083
647 9850

10

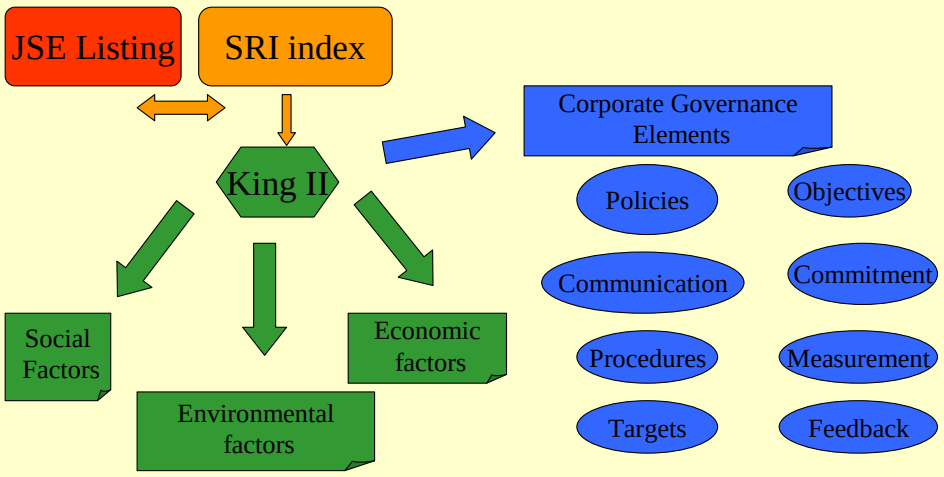
The management systems are designed to provide the following outcomes. The systems can be referred to as an integrated management system (IMS)

IMS/ISO

- IMS
  - IMS
  - IMS Managaement reports
  - IMS Records
  - IMS RecordsHO
- Internal audit's objective: Continuous improvements
- External Audit objective: Proof of continuous improvements.
- Centralized reporting on templates per department
- Technical, Procurement, Human Resources, Marketing, Operations, Production.
- One question remains: What did you benefit from using the ISO system?

Barries Badenhorst 083 647 9850 12

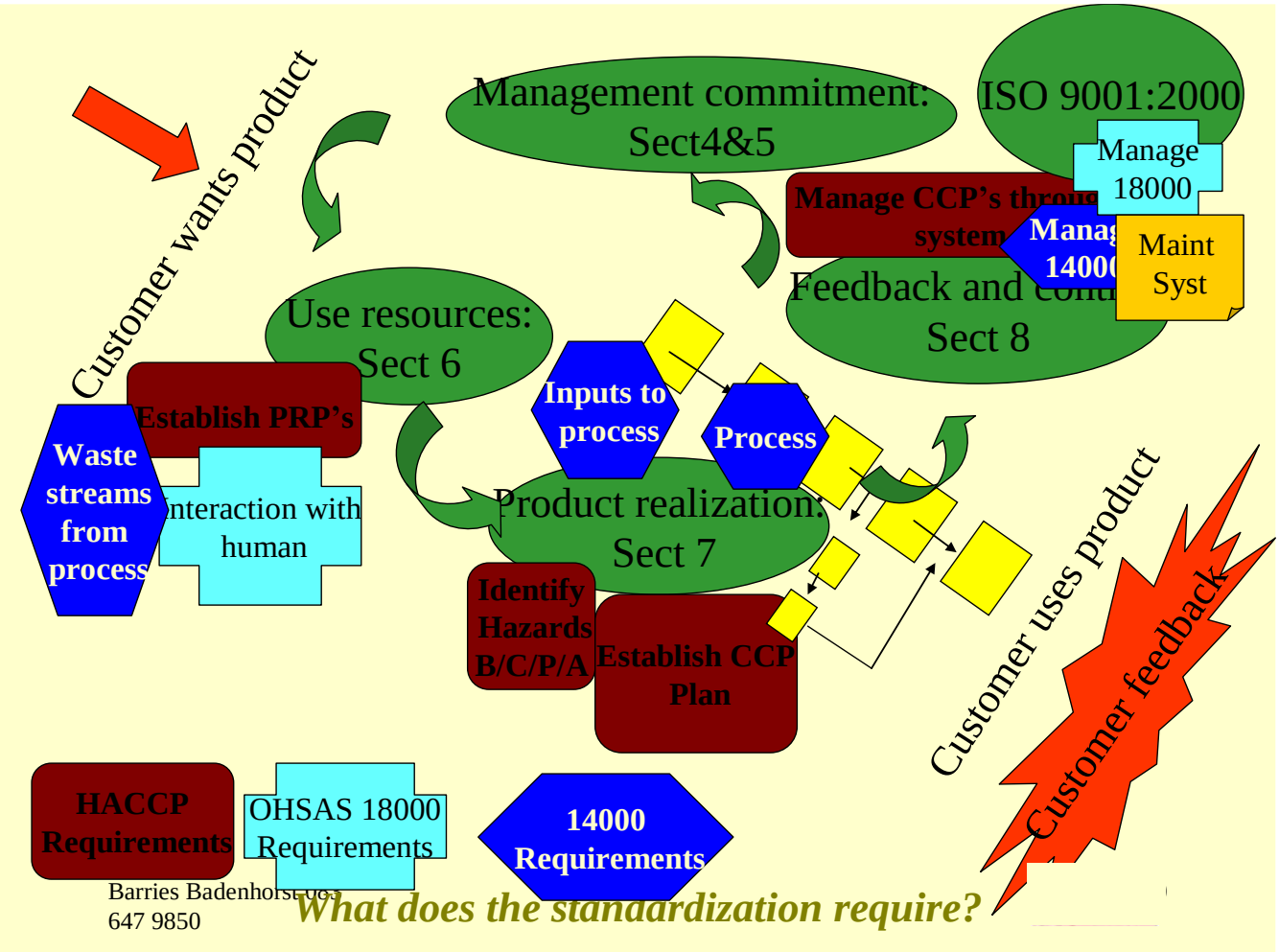
Future value adding aspects are related to the corporate governance as described in the King 2 report. Most of the required data and management systems are contained in the described managements systems being developed.



ISO 9001
ISO 22000
ISO 14000
OHSAS 18000

Barries Badenhorst 083 647 9850 13

The integration of the quality systems aimed at the product, process, environment and human interface are interlinked in a matrix of developed systems as illustrated in the following diagram.



10.3.5 Pelleters

PELLET QUALITY

"Feed manufacturing continues to play a central role in meat production. As such, there is a desire to continually improve the process, while also decreasing production costs. Unfortunately, these two goals are at odds with each other. Improving the process of feed manufacturing involves a rational evaluation of the individual process components. Once this rationalization is complete, the processes can be brought into control, with the ultimate aim of producing the highest quality product, at the lowest cost.

In the broiler and turkey industries, pelleting plays a central role in the process of feed manufacturing. Because pelleting is the most expensive step in the feed manufacturing process, considerable attention has been given to controlling production costs. Unfortunately, this desire to reduce production costs has had a negative impact on pellet quality.

Most reviews of feed manufacturing technology will place a discussion of pellet quantity at the end of the paper, to summarize the effects of new innovation or research on pellet quality. However, in this article the concept of pellet quality is first and foremost. A strong understanding about pellet quality is the most critical aspect of the improvement of any pelleting process.

Traditionally, pellet quality was viewed as more of a marketing concept. Commercial feed companies would proudly boast of their superior pellet quality, and market the product to their customers on this claim. In reality, pellet quality has always been given short-shrift; how many production managers will admit that the pellet quality log is never reviewed?

On the other hand, assuming the data is reviewed, how many production/plant managers actually analyze the data and track pellet quality?

Testing for Improvement

Answering the above questions will provide insight into the fundamental issue with current pellet quality discussions: *pellet quality is viewed as a consequence of the process, rather than a means of evaluating the process.* Using this line of thought, it is essential that the industry begins to utilize pellet quality testing techniques as a method to improve the process. By using testing to improve and control the process, pellet production can become more consistent, and overall pellet quality can be targeted.

Before discussing pellet quality measurement techniques, it is essential to consider the conditions that can impact pellet quality. Following agglomeration (pelleting), the hot, moist pellets are discharged (typically via a gravity spout) into a cooler. Following cooling, the pellets are conveyed to an elevator leg and then elevated to discharge into a storage bin. During this process and abrasion forces that can erode the physical quality of the pellets.

Most pellet quality test can be classified as either abrasion or impact tests. The purpose of this classification is to qualify the results in the context of the process. For example, an impact test can be used to quantify the ability of a pellet to withstand contact stresses, such as the free fall of pellets into a bin; while an abrasion test can be used to quantify the ability of a pellet to withstand erosive stresses, such as conveyance using a screw or drag conveyor. Appropriate qualification of pellet quality data allows the feed manufacturer to modify the process so that pellet integrity is continually improved.

Pellet quality in the US is typically reported as the Pfost tumbling can test. The method involves tumbling a pre-weighed quantity of screened pellets for a defined period of time; following tumbling, the test material is screened, and the pellets are weighed.

Pfost durability is then defined according to following equation:

$$\text{Durability (\%)} = \left\{ \frac{\text{Overs,g}}{\text{Sample Wt.,g}} \right\} \text{X } 100$$

Most feed mills are equipped to measure Pfost durability; therefore, this test has become the most common.

Thomas van der Poel (1996) measured the variation associated with various impact and abrasion tests available on the market. This data illustrate that proper selection of a test is critical to obtaining valuable process data. When considering Impact tests, the Kahl tester, while affordable and easy to use, provides fairly high coefficients of variation (CV). In contrast, the Kramer test provides low CV's but the initial cost is high and the test requires a rigorous standard procedure to insure low variability.

In contrast, both abrasion tests have low variability. Therefore, choice of test is strongly dependent on cost to implement, and ease of use. The Pfost test takes significantly more time than the traditional Holmen tester. At the end of the day, either abrasion tester is acceptable.

Quantify Variables

The critical message to take home from this discussion is that any pellet testing programme must recognize that pellets are exposed to both impact and abrasion forces. Therefore, a key component of any pellet quality improvement programme is to quantify these distinct variables, and then maximize their values through changes to the process.

Once an appropriate pellet quality testing programme is established, it is absolutely critical that the variables that affect pellet quality are documented. The variables should be chosen, based on the ability of the operator to change these variables to impact the process. A good example of a variable would be conditioning temperature; modifying the conditioning temperature can have a direct impact on pellet quality. Consequently, the effect of conditioning temperature on pellet quality can be tracked so that changes in this variable could have a predictable and measurable impact on the quality of the product.

Process automation

An argument can be made that automation in the feed manufacturing industry has negatively impacted product quality. Automation has significantly decreased the production cost of feed; however, in the process, any focus on quality has been virtually eliminated. Currently, feed plants are more concerned about the cost to manufacture a ton of feed; as such, quality is only a passing concern, mainly relegated to discussion with the nutritionist or live production.

Virtually all poultry feed mills that pellet feed are automated. This high degree of process automation is a perfect match for a strong, data-driven, quality improvement project. The true advantage of pellet automation is the ability to collect and control all major process variables at the touch of a button.

Before the pelleting process can be optimized for the production of high-quality pellets, proper analysis of the quality data is a priority. Typically, when tracked, quality data is plotted against a time variable. This form of data analysis, while better than nothing, tells very little about the effects of the pelleting process on pellet quality. As a result, these graphs are typically reviewed, and in many cases, tracking of pellet quality becomes nothing more than "window dressing".

10.3.6 Conditioners

CONDITIONING CONTROLS

Conditioning is the most critical step in the manufacture of a quality pellet. Regardless of conditioning technique used, the fundamentals are the same: heat and moisture are added to the dry meal. The conditioned meal is then ready for plasticization during the pelleting process.

Most pelleting systems in the poultry industry use atmospheric conditioners; these conditioners do not pressurize the feed or add shear. Instead, the dry meal is co-mingled with steam. The result is that moisture and heat energy is added to the meal. The moisture is critical for the ease of passage of the meal through the die, and for proper agglomeration. The heat energy is critical for the uniform transport of the moisture to the centre of the meal particles. In general, a moisture target of 16.5% to 17.0% in the conditioned meal is considered ideal.

Conditioning does improve pellet quality, but does not increase the degree of gelatinization of the finished feed. The data illustrate that, while conditioning does not increase the degree of gelatinization of a particular diet, it does significantly impact the durability of the diet. The increased moisture imparted during conditioning may participate in the inter-particle bonding via capillary sorption. This bonding may be the glue that enables successful agglomeration of the feed during the pelleting step. Proper conditioning of the meal prior to physical agglomeration also facilitates the pelleting process. Table 2 illustrates that condition with steam reduces the amount of energy required to pellet, while increasing durability of the pellet.

Proper application

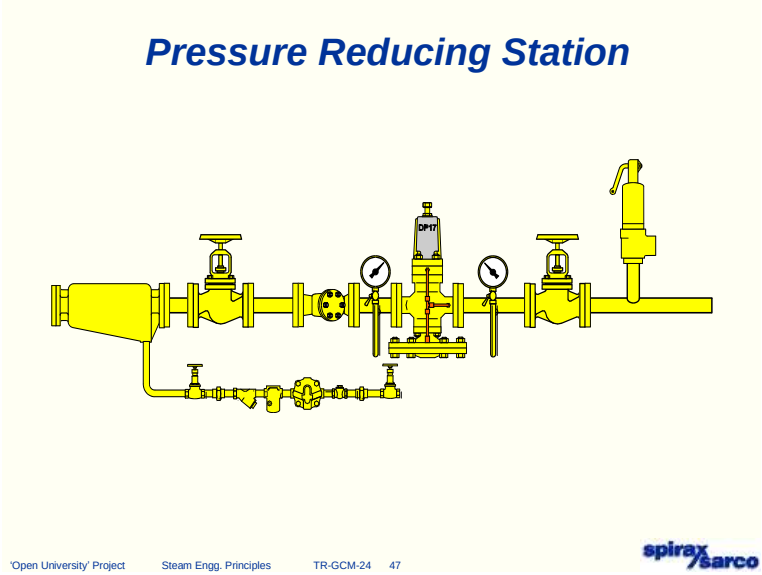
The data on the benefits of conditioning are straight forward: properly done, conditioning can improve pellet quality and reduce the amount of energy required to pellet. The issue is not the efficacy of conditioning; instead, the issue is the proper application of conditioning.

Atmospheric conditioners are fairly simple in design, essentially being mixing vessels with steam and liquid ports. However, there are several criteria that are essential to the proper operation and maintenance of conditioners. These include:

- effective steam harness
- proper steam pressure
- correct pick configuration
- retention time

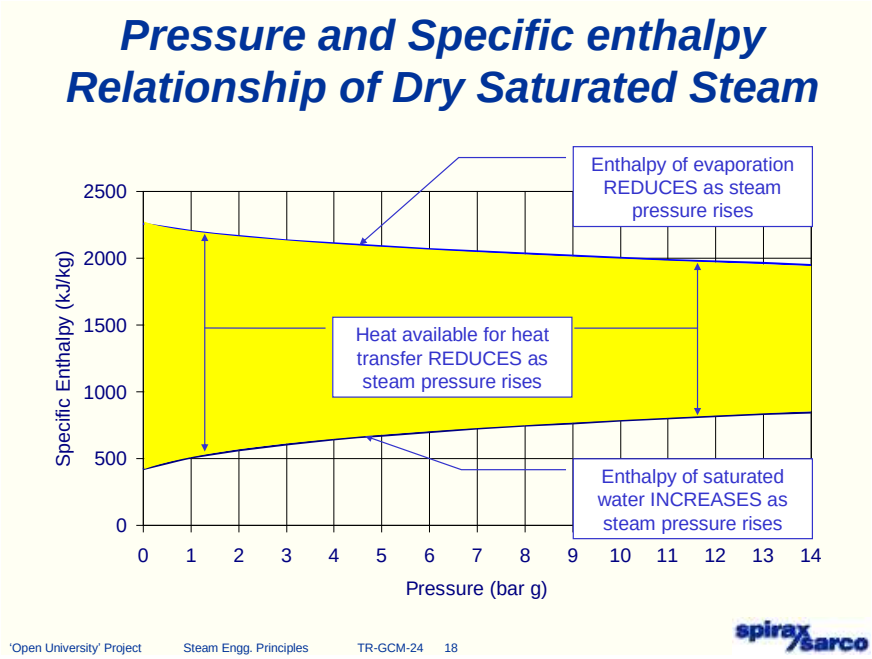
In general, the first two items involve the steam harness, while the second two involve the operation of the conditioner itself.

The most critical aspect of conditioning involves the regulation of the steam addition. Typically, this is accomplished through the use of a steam harness. Steam harnesses are commonplace in the industry, but proper configuration is still a problem. The purpose of the steam harness is to provide a clean, well-regulated supply of steam to the conditioner.



Wet and dry steam

In the feed industry, the terms “wet” and “dry” steam are typically used to characterize the condition of the steam entering the conditioner, with “dry” steam being superheated steam and “wet” steam having excess condensate. These two definitions are the exact reason why a proper steam harness is essential. The addition of moisture via steam greatly improves the efficiency of the conditioning process by using the fundamentals of heat transfer to move the moisture from the outside of the feed particles to the interior. It is essential that good steam has the right quantity of heat to optimize the migration of moisture into the interior of the meal particles. Pfost (1976) first explained this concept by suggesting that steam should raise the temperature of the mash by 27°F (15°C) for every 1% moisture added. In general it is suggested that older systems have steam harnesses that provide approximately 20°F (11°C) for every 1% moisture added, while newer systems approach 30°F (16°C) for every 1% moisture added.



Steam efficiency

The values (steam efficiency are critical to the correct operation of a pellet mill's steam harness. The steam efficiency value of a steam harness can be calculated according to the following equations:

$$\textit{Steam Efficiency} = \frac{CMT - MMT}{CMM - MMM}$$

Where:
Steam Efficiency = °F temperature rise / % moisture
CMT = Conditioned meal temperature, °F
MMT = Mixed meal temperature, °F
CMM = Conditioned meal moisture, %
MMM = Mixed meal moisture, %

Using this equation, production and quality managers can monitor the heat context of the steam on a frequent basis. As a general rule of thumb, when steam efficiency drops below 20°F (11°C), the heat content is not high enough to efficiently condition the meal in the relatively short conditioning time. In contrast, when the steam efficiency goes above 30°F (17°C), the energy content of the steam is high enough that the evaporated moisture may not condense into the liquid phase in the relatively short conditioning time.

The use of steam efficiency also allows production and quality manager to adjust their steam harnesses to compensate for fluctuations in mixed meal moisture and temperature. For example, during the summer months, as the current year's corn crop is rapidly coming to a close, the moisture content of the meal and the temperature of the meal may change such that steam conditions may need to be altered to compensate for these environmental conditions.

Key role of steam

First a key assumption: the upper moisture limit for conditioned meal is 17.5%. Realistically, a pellet mill cannot pellet feed that has moisture content above 17.5%: however, a good conditioned meal target to optimize pellet quality should be around 17% moisture.

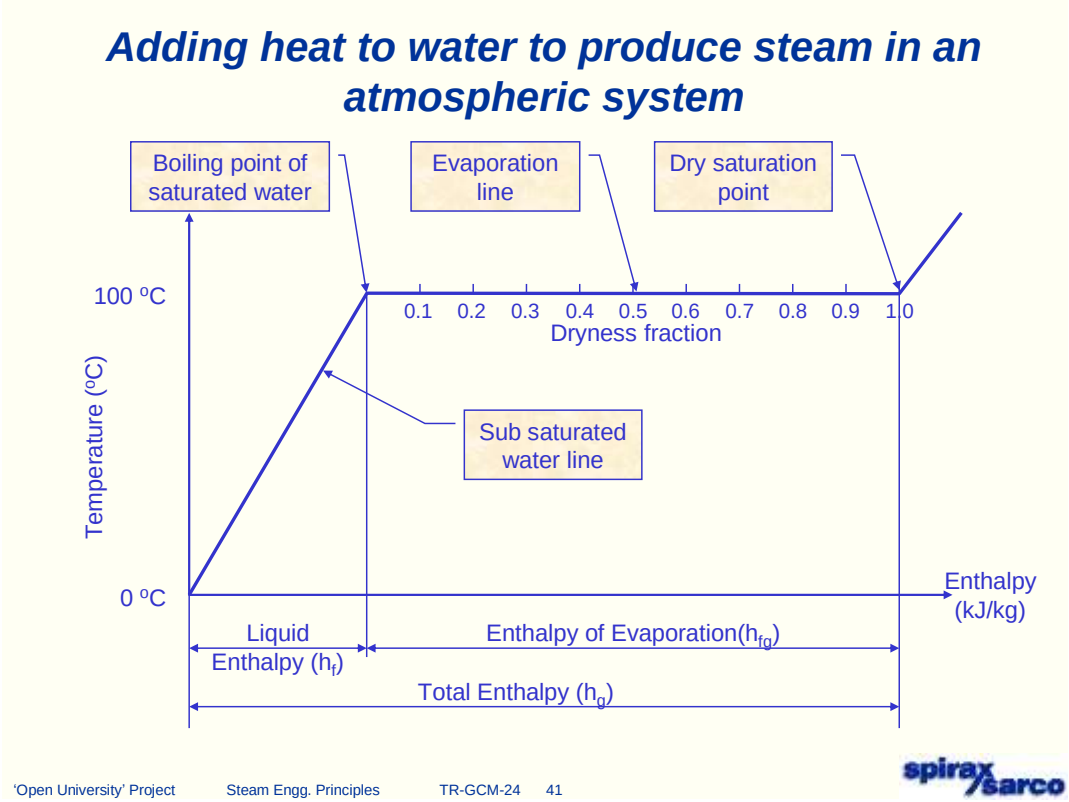


Table 3 analyses the change in steam efficiency value, based on a uniform conditioning temperature of 185°F (85°C) and a conditioned meal moisture target of 17%. In contrast, Table 4 analyses the conditioning temperature that would be required to achieve a conditioned meal moisture content of 17%, at a uniform steam efficiency value.

Currently, it is common practice to run the pellet mill at 185-190°F (85-99°C) in a poultry facility, while essentially disregarding the impact of the mixed meal temperature and the mixed meal moisture. Some automation systems track the temperature of the mixed meal; however, very few systems track the moisture of both the mixed meal and the conditioned meal.

Unfortunately, good quality pellets cannot be achieved by maximizing the conditioning temperature alone, but also by understanding the critical factors that influence steam quality and conditioner performance. These factors include good, clean steam, a firm grasp on mixed meal moisture and temperature and proper steam pressure adjustment capability.

Research data suggest that steam pressure does not play as critical a role in pellet quality, when compared to other variables. However, steam pressure does have an impact on the steam efficiency. As a result, steam pressure should be adjusted, in response to the measured moisture and temperature of the meal entering the conditioner.

Meal moisture

A recurring theme in this discussion is the role that meal moisture has in optimizing pellet quality. There are times in the production year when meal moisture can fluctuate substantially. Much of this fluctuation is driven by the moisture of corn, a primary constituent of poultry diets. When the moisture content of the meal changes the total moisture in the system changes, all things being equal. For example, if the moisture of new crop corn is 3% higher than the moisture of old crop corn, it is reasonable to assume that the conditioning temperature of 185°F may be difficult to achieve, assuming that the steam harness has not been modified. In contrast, when the moisture of old crop corn is around 10%, a conditioning temperature of 185°F will not be adequate to provide the same degree of conditioning compared to corn that has a moisture content of 13%.

Regardless of parameter adjusted, the key to good quality pellets is to target conditioned meal moisture of 16.5%-17.0%, and maintain this moisture at all times. By monitoring the flow of moisture in the conditioning system, the production and quality manager have a better chance of consistently producing high quality pellets.

A critical part of good conditioner performance is insuring that the steam delivered to the conditioner is clean and free of excess condensate. Condensate is moisture in steam that has condensed out of the vapour phase. The condensed moisture, when exposed to the meal, is not absorbed as effectively as moisture entrained in the vapour phase. This is due to the lower energy content of the condensed moisture. Therefore, it is absolutely critical to remove as much condensate as possible from the steam. This is accomplished by the installation of effective separators in the steam harness.

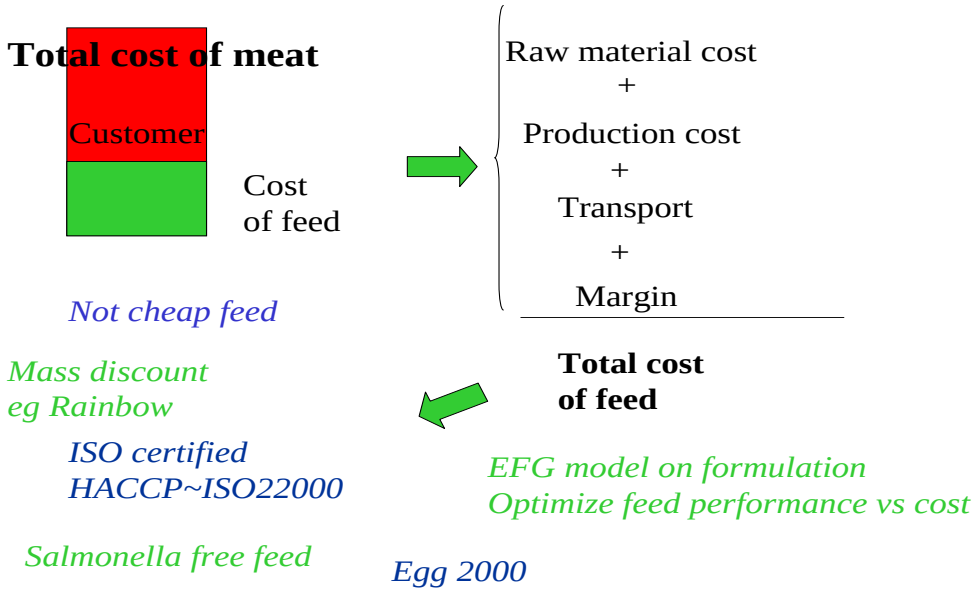
Pick angles and shaft speed

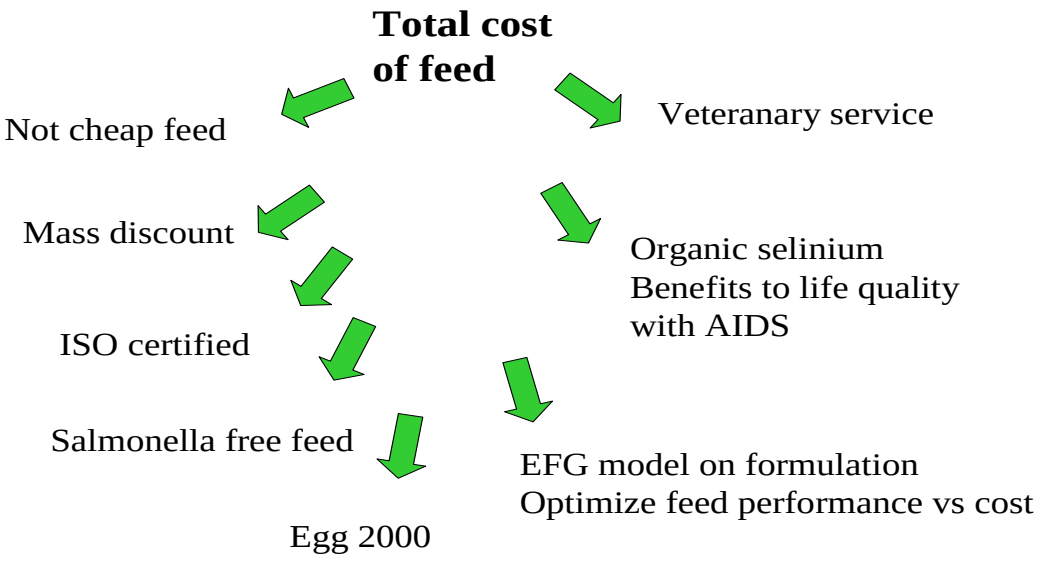
Once good quality steam is delivered via an effective steam harness and optimum steam pressure, some attention needs to be paid to the configuration not the pick angles or the speed of the conditioner shaft, in the conditioner itself. By adjusting the picks in the conditioner to the parallel setting, a 5-point increase in Pfost durability can be achieved, when compared to the standard pick setting. And a 5% increase in Pfost durability can be achieved, by increasing the retention time from 5-10 seconds to 20-25 seconds by decreasing the speed of the conditioner shaft. Increasing conditioner retention time, via altering the pick angle, is a good strategy for increasing pellet quality. However, debate exists regarding the optimum setting. Suggesting pick angle of 45° at the throat and discharge of the conditioner and 0° in the centre

of the conditioner may be a bit too aggressive. However, the concept remains: altering pick angle increase retention time, which will result in increased pellet quality.

Pellet quality can also be influenced by changing the speed of the conditioner shaft. This can be accomplished by the installation of a Variable Frequency Drive (VFD), which can then be linked into most automation systems. The advantage of this approach is that pellet quality could be affected on a "real-time" basis, in contrast to opening the conditioner and adjusting the picks manually. While the cost is fairly substantial for VFD motor, this option should be investigated." Dick Ziggers(2006)

10.3.7 Pellet business concept

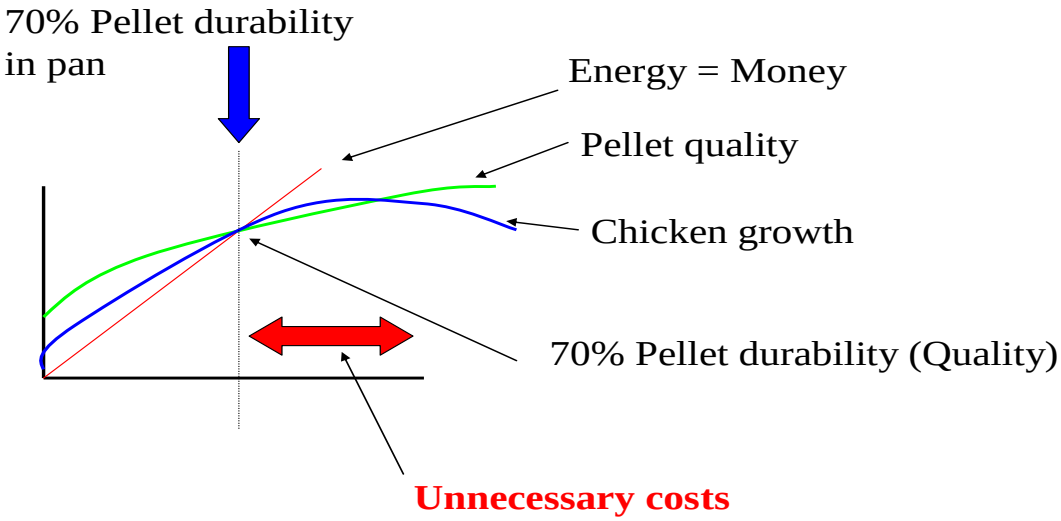




Stock variance vs. Water inclusion

6000kg	
-60kg	Storage loss 1%
-20kg	Moisture and dust when mixing 0.4%
5920kg	
+88kg	Water injection → ~~CCP food safety~~ / Quality system
6008kg	
8kg	Gain → Tollerance affects feed performance

Pellet Quality



11. OPERATIONAL FINANCIAL CONTROL AND REPORTING

EXPENSE COMPARISON
Month: Aug 2006
Viljoenskroon

		ACTUAL 2006/07 Rands	BUDGET 2006/07 Rands	ACTUAL 2005/06 Rands	VARIANCES ACTUAL vs BUDGET Rands	VARIANCES ACTUAL vs BUDGET %	YEAR-TO-DATE ACTUAL Rands	YEAR-TO-DATE BUDGET Rands
ADMIN		**836,453**			(836,453)	0.0%	**1,765,684**	
National Salaries	Incl in Viljoenskroon				0	0.0%		
Salaries Viljoenskroon		564,437		**564437**	(564,437)	0.0%	1,128,874	
Salaries Sales		108,480		**108480**	(108,480)	0.0%	216,960	
Overtime		956		**0**	(956)	0.0%		
Free Sales		5,000		**5000**	(5,000)	0.0%	10,000	
Audit remuneration		0		**7085**	0	0.0%	14,170	
Bad debts net of recoveries				**0**	0	0.0%		
Bank charges		4,010		**4010**	(4,010)	0.0%	8,020	
Cash discounts		0		**0**	0	0.0%		
Computer charges:	Outsourced	0		**0**	0	0.0%		
	Other	34,616		**0**	(34,616)	0.0%		
Depreciation				**12064**	0	0.0%	24,128	
Insurance and own losses				**46250**	0	0.0%	92,500	
Legal and consultancy fees		40,000		**40000**	(40,000)	0.0%	80,000	
Licence fees				**0**	0	0.0%		
Printing and stationery		4,435		**4435**	(4,435)	0.0%	8,870	
Rates				**0**	0	0.0%		
Regional Services Council levies				**0**	0	0.0%		
Rental paid				**0**	0	0.0%		
Security		10,572		**14505**	(10,572)	0.0%	29,010	
Telephone and postages		21,034		**33663**	(21,034)	0.0%	67,326	
Travelling		42,913		**42913**	(42,913)	0.0%	85,826	
MAINTENANCE		**499,935**		**599362.75**	(499,935)	0.0%	1,198,726	
Salaries		132,601		**132601**	(132,601)	0.0%	**265,202**	
Overtime		17,767		**44761.75**	(17,767)	0.0%	89,524	
Callouts				**0**	0	0.0%		
Standby		13,600		**0**	(13,600)	0.0%		
Leasing and rental	Other			**0**	0	0.0%		
Repairs and Maintenance:	Buildings and plant	49,579		**140000**	(49,579)	0.0%	280,000	
	Motor Vehicles + fuel	4,387		**0**	(4,387)	0.0%		
	Other			**0**	0	0.0%		
Services		192,000		**192000**			384,000	
Services:Clinic, Fire, Ins, Transp		75,495		**75495**			150,990	
Securitity		14,505		**14505**			29,010	
PRODUCTION		**917,033**		**1141870**	(917,033)	0.0%	**2,283,740**	
Salaries		414,006		**414006**	(414,006)	0.0%	828,012	
Overtime		16,973		**146587**	(16,973)	0.0%	293,174	
Shift allowance				**0**	0	0.0%		
Callouts				**0**	0	0.0%		
Standby				**0**	0	0.0%		
Casuals		9,779		**9779**	(9,779)	0.0%	19,558	
Outsourced		13,010		**200400**	(13,010)	0.0%	400,800	
Laboratory expenses		0		**0**	0	0.0%		
Cleaning and fumigation		8,812		**8812**	(8,812)	0.0%	17,624	
Forklifts + fuel	Barlows	30,220		**30220**			60,440	
Packing expenses		92,168		**0**	(92,168)	0.0%		
Pallet hire and repairs		0		**0**	0	0.0%		
Power and water		301,546		**301546**	8,618	0.0%	603,092	
Railage and hired transport	(Incomming loads)	30,520		**30520**	(30,520)	0.0%	61,040	
Other	From prod report			**0**	0	0.0%		
TOTAL FIXED AND VARIABLE COSTS		**2,253,421**	#REF!	3,521,002	#REF!	#REF!	7,445,758	8,223,429
Other as a percentage of total		0.0%	#REF!	0.0%			0.0%	0.0%
Cost per ton	**Target at R150 / ton**	**112.67**					**186.144**	
STAFF COMPLEMENT								
PERMANENT		95			(95)	0.00%		
CASUAL		55			(55)	0.00%		
OUTSOURCED		36			(36)	0.00%		
TOTAL COMPLEMENT		186	0	0	(186)	#DIV/0!		

MONTHLY VARIANCE REPORT: Rands

MONTHLY VARIANCE REPORT: Rands

FEED VOLUME	ACTUAL	BUDGET	VARIANCE	R.P.T	VALUE VARIANCE
Inter-Branch			0	398.08	0
Country Bird	198				
Chubby Chicks			0	#REF!	#REF!
Outside	3,265				
Other Export			0	237.40	0
			0	398.08	0
			0	0.00	0
Total	**20,000**	0	0		#REF!

NETT M.G.P.	ACTUAL	BUDGET	VARIANCE	TONS	VALUE
Inter-Branch	#REF!	#REF!	#REF!	0	#REF!
Country Bird	#REF!	#REF!	#REF!	0	#REF!
Chubby Chicks	135.92	237.40	(101.49)	0	0
Outside	399.72	398.08	1.64	0	0
Other Export	0.00	0.00	0.00	0	0
Total				0	#REF!

VARIANCES	ACTUAL	BUDGET	
Raw Material - Price	#REF!	0	#REF!
Raw Material - Quantity	(793,613)	0	(793,613)
Finished Product	410,432	189,155	221,277
Reformulation	335,631	120,810	214,821
Other:-			
Revaluation	0	0	0
Other Trading Variances	0	0	0
LABOUR VARIANCES	#REF!	#REF!	#REF!
FIXED EXPENSE VARIANCES	(861,176)	(1,269,681)	408,505
VARIABLE EXPENSE VARIANCES	#REF!	#REF!	#REF!
SUNDRY REVENUE VARIANCES	3,433	3,000	433
TRADING PROFIT VARIANCE	6,794,805	4,841,821	1,952,984

12. OPERATIONS OPTIMIZATION

The excel QM solver tool was used to model the optimal schedule in production. This was compared with international comparative modelling.

	A plant					B Plant					
	LaMac	Buhler	Meel	Bags	Volume required by formula per month	CPM ruminant	CPM	Meel	Bags	Volume required by formula per month	Total volume
Kw				Maximum capacity	Marketing requirement				Maximum capacity	Marketing requirement	
Theoretical capacity			Should fill capacity					Should fill capacity			
	Mixer 2 ton 3 min cycle					Mixer 2 ton in 3 ton capacity 3 min cycle					
Rantsoene											
Enkelmaag											
Start											
Grower											
Finisher											
Post Finisher											
Herkouer											
Wild											
Lekke											
	Max capacity A plant		40	ton/hour		Max capacity B plant		40	ton/hour		
		at 80%	32	ton/hour				32	ton/hour		
	6 days per 4 weeks		18432	tons		6 days per 4 weeks		18432	tons		
	7 days		21504	tons		7 days		21504	tons		

	Plant machine maximum capacity tons per hour									
	LaMech	**Buhler**	**CPM**	**CCPM**	**Mixer A**	**Mixer B**				
Formulations					30	45				
Broiler										
Pre-starter	0	7	0	0	30	45				
Starter	0	7	0	0	30	45				
Grower	12	7	0	0	30	45				
Finisher	12	0	14	0	30	45				
Post Finisher	12	0	14	0	30	45				
Layer	14	0	16	0	30	45				
Dairy	0	0	0	8	0	45				
Sheep	0	0	0	8	0	45				
Pig	0	0	0	8	0	45				
Beef/Licks	0	0	0	8	0	45				
	Scheduling recommended tonnage per machine									
	LaMech	**Buhler**	**CPM**	**CCPM**	**Mixer A**	**Mixer B**	**Totals**			
Formulations					Mash	Mash				
Broiler										
Pre-starter	0	0	0	0	0	0	**0**			
Starter	0	0	0	0	0	0	**0**			
Grower	5	5	0	0	0	0	**10**			
Finisher	5	0	0	0	0	0	**5**			
Post Finisher	5	0	0	0	0	0	**5**			
Layer	14	0	5	0	5	5	**30**			
Dairy	0	0	0	0	0	0	**0**			
Sheep	0	0	0	0	0	0	**0**			
Pig	0	0	0	5	0	0	**5**			
Beef/Licks	0	0	0	0	0	0	**0**			
Totals	**30**	**5**	**5**	**5**	**5**	**5**	**56**			
							40000	Monthly tons required		
Maximize Capacity	**55.56**	tons					55.56	Budget tons per hour		
Broiler Mash/Crumbs	10									
Broiler Pellets	10									
Layer	19									
Ruminant pellets	5									
Total Pellets	45	**81.30%**								
Total Mash	10	**18.70%**								
	56									

Microsoft Excel 11.0 Answer Report
Worksheet: [Optimization model_Nov2006.xls]Sheet1
Report Created: 10/24/2006 6:52:31 PM

Target Cell (Max)

Cell	Name	Original Value	Final Value
B33	Maximize Capacity LaMech	55.56	55.56

Adjustable Cells

Cell	Name	Original Value	Final Value
B20	Pre-starter LaMech	0	0
C20	Pre-starter Buhler	0	0
D20	Pre-starter CPM	0	0
E20	Pre-starter CCPM	0	0
F20	Pre-starter Mash	0	0
G20	Pre-starter Mash	0	0
B21	Starter LaMech	0	0
C21	Starter Buhler	0	0
D21	Starter CPM	0	0
E21	Starter CCPM	0	0
F21	Starter Mash	0	0
G21	Starter Mash	0	0
B22	Grower LaMech	5	5
C22	Grower Buhler	5	5
D22	Grower CPM	0	0
E22	Grower CCPM	0	0
F22	Grower Mash	0	0
G22	Grower Mash	0	0
B23	Finisher LaMech	5	5
C23	Finisher Buhler	0	0
D23	Finisher CPM	0	0
E23	Finisher CCPM	0	0
F23	Finisher Mash	0	0
G23	Finisher Mash	0	0
B24	Post Finisher LaMech	5	5
C24	Post Finisher Buhler	0	0
D24	Post Finisher CPM	0	0
E24	Post Finisher CCPM	0	0
F24	Post Finisher Mash	0	0
G24	Post Finisher Mash	0	0
B25	Layer LaMech	14	14
C25	Layer Buhler	0	0
D25	Layer CPM	5	5
E25	Layer CCPM	0	0
F25	Layer Mash	5	5
G25	Layer Mash	5	5
B26	Dairy LaMech	0	0
C26	Dairy Buhler	0	0
D26	Dairy CPM	0	0
E26	Dairy CCPM	0	0
F26	Dairy Mash	0	0
G26	Dairy Mash	0	0
B27	Sheep LaMech	0	0
C27	Sheep Buhler	0	0
D27	Sheep CPM	0	0
E27	Sheep CCPM	0	0
F27	Sheep Mash	0	0
G27	Sheep Mash	0	0
B28	Pig LaMech	0	0
C28	Pig Buhler	0	0
D28	Pig CPM	0	0
E28	Pig CCPM	5	5
F28	Pig Mash	0	0
G28	Pig Mash	0	0
B29	Beef/Licks LaMech	0	0
C29	Beef/Licks Buhler	0	0
D29	Beef/Licks CPM	0	0
E29	Beef/Licks CCPM	0	0
F29	Beef/Licks Mash	0	0
G29	Beef/Licks Mash	0	0

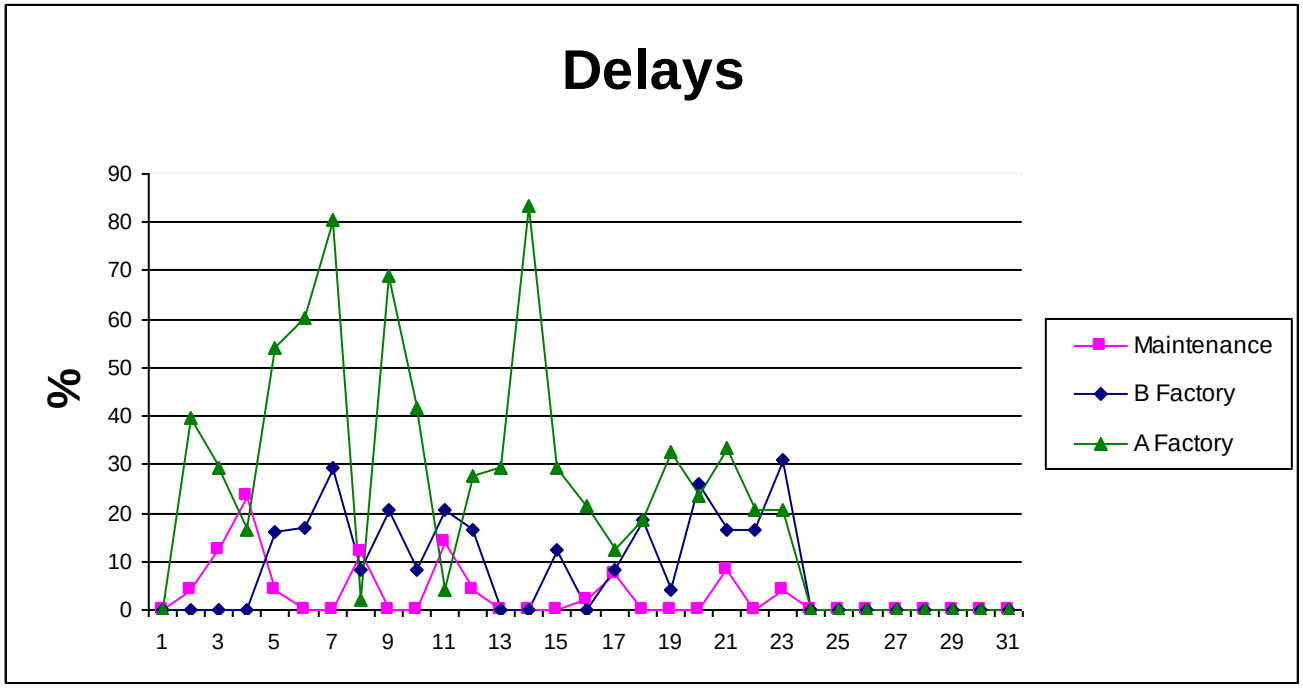
Plant efficiencies

October **Production - A Factory**

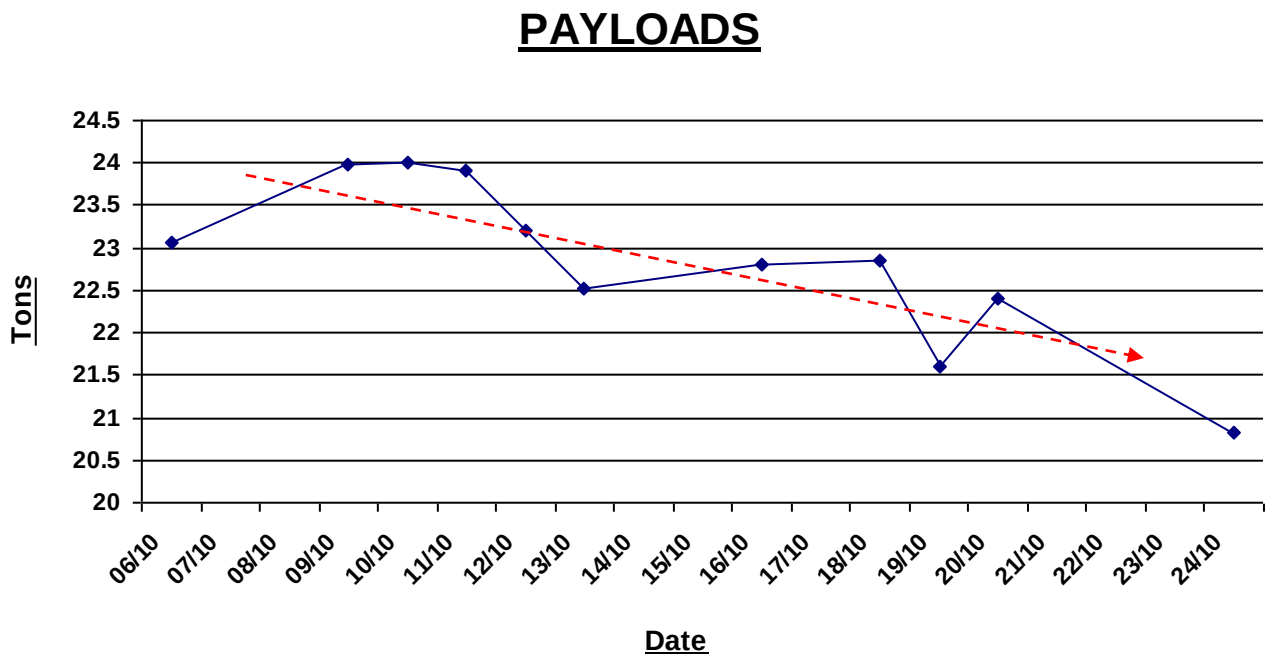
Date	%	Mixing	Grinding	Pelleting	Receiving	Order & Other	Bin space	Prev Maint	Labour	Bulk	Total Delays
1	0										0
2	40	6					3.5				9.5
3	29						7				7
4	17			1			3				4
5	54	2					3	7	1		13
6	60			6.5			8				14.5
7	81			10.83	1		7.5				19.33
8	2				0.5						0.5
9	69			3.08	9.5		4				16.58
10	42			4			5		1		10
11	4			1							1
12	28						5.67	1			6.67
13	29			1	2		4				7
14	83			11	1					8	20
15	29									7	7
16	22						2.17			3	5.17
17	13			1			2				3
18	19						4.5				4.5
19	33						5.83	1	1		7.83
20	24						5.67				5.67
21	33						8				8
22	21						5				5
23	21			1			4				5
24	0										0
25	0										0
26	0										0
27	0										0
28	0										0
29	0										0
30	0										0
31	0										0

October **Production - B Factory**

Date	%	Mixing	Grinding	Pelleting	Receiving	Order & Other	Bin space	Prev Maint	Labour	Bulk	Total Delays
1	0										
2	0	2				1					
3	0	3			1		3.67				
4	0										0
5	16						3.83				3.83
6	17	1					3.08				4.08
7	29						7				7
8	8						2				2
9	21	1					3			1	5
10	8	1							1		2
11	21			2			3				5
12	17						4				4
13	0										0
14	0										0
15	13				1		2				3
16	0										0
17	8						2				2
18	19	0.5				2	2				4.5
19	4								1		1
20	26				1		5.25				6.25
21	17	1					3				4
22	17					1	3				4
23	31						7.42				7.42
24	0										0
25	0										0
26	0										0
27	0										0
28	0										0
29	0										0
30	0										0
31	0										0



Payloads



Maintenance

The plant started with short falls as identified by the maintenance staff as:

No systematic Maintenance environment

Fix it when it broke

Fire Fighting

Low Maintenance Budget

New Strategy:

Change from a Fire Fighting system to a Planed Maintenance System using the RCM philosophy.

Maintenance techniques, such as condition monitor is introduced. (Infra Red monitor on electrical and mechanical equipment, vibration monitoring, oil sample testing on machines and transformers.)

Shift in organization thinking of maintenance personnel towards participation, team work and flexibility. - Multi skilled team

Re-establish Plan Maintenance and Inspections based on Operation needs with failure prevention elimination basis. - Improve machine availability.

Identify all critical equipment and all unreliable equipment that have an affect on production and quality - list them on a Maintenance Schedule to plan the tasks.

Planned Maintenance work and major inspection work is planned for Sunday's when no Production is planned. The Plant is electrical and mechanical isolated for safety reasons. Improvements on machines and equipment are made during this shut – down.

All abnormality's on equipment during inspection are listed and plan according the Maintenance schedule – High or low frequency.

Daily inspection on critical equipment; Hammer mills, pellet mills and scales are planned, between 07.00 and 08.00. Bucket elevators and chain conveyors are planned for after tea time. Roll setting on pellet mills are checked daily.

Inspection schedule on hammer mills sieves.

Cleaning schedule during planned maintenance day's on coolers and cyclone's – Repair all dust leaks.

Investigate all failures and act proactive; Improve fan impellers at raw material section, change suppliers for electric motor rewinds ECT.

Centralize stores – better control of spares, cost and ordering of spares

Measuring of maintenance performance – Down time – plant availability, quality of product and maintenance cost.

Making of flow diagrams of the plants and equipment with loading / discharge, mixing times to determine problem area's in the operation.

Improvements were made on the following equipment to improve production output or quality:

Hammer mill – Increase beaters
105 Screw on B plant – increase system
Luzerne blow line – Remove mixer
Adjust conditioning times.
Install steam stations on pellet mills
Change the pellet flow of the Lamec pellet mill.

13. CUSTOMER CARE

Senwesco Feeds have placed an increasing emphasis on customer service as a meaning of gaining a competitive advantage. Our Customers is the foundation of our business and keeps Senwesko in existence. We cannot compete in price alone and implemented measures to be improve service levels and customer satisfaction.

Senwesko has undertake a major change programme which is intended to focus on the customer to increace Senwesko‘s profitability to become a leader in a competitive market .

13.1 Objectives

To create a customer focused organization .
To differentiate itself from our competition .
Improve its image in the eye of the customer .
To improve profitability .
Increace customer satisfaction .
Ensure products and service are delivered “right first time “.
Reduce costs .
To create a reputation for being a caring customer-orientated company .
Bring about continuous improvements to the to the operation of the company .

13.2 Actions

Implementing a customer care strategy, managed by the sales co-ordinator

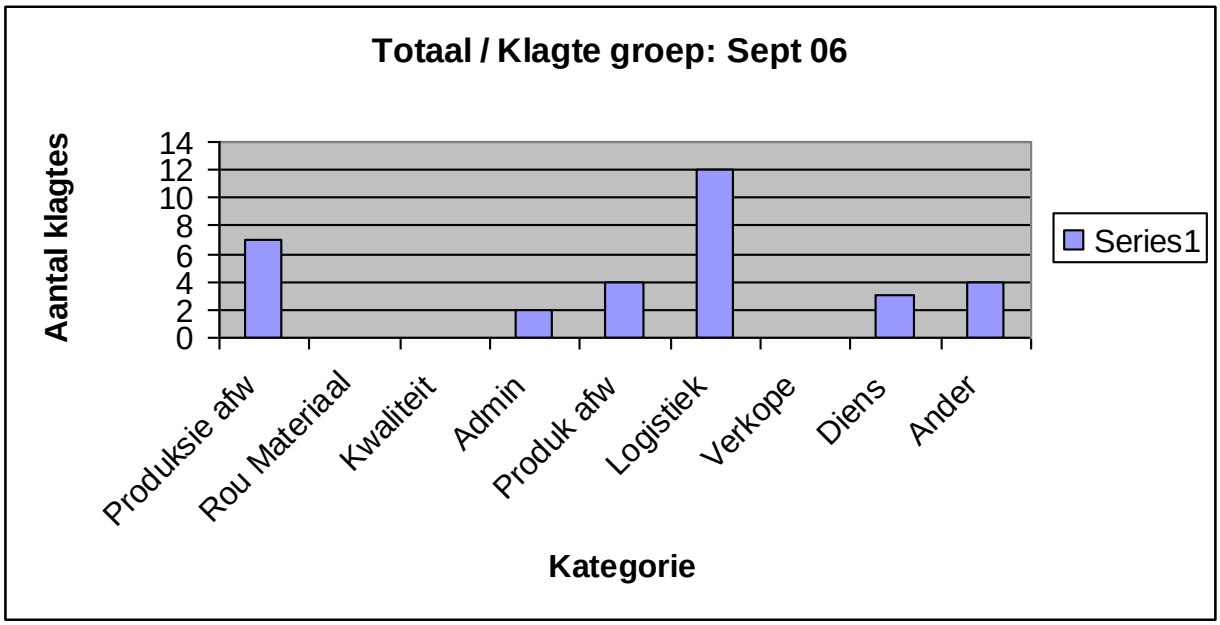
SALES CO-ORDINATOR

Senwesko has appointed a Sales Co-ordinator to attend to the needs of it's customers, and to give feedback to the customers when the Mill is experiencing problems to improve the way Senwesko do business with the customers.

MONITORING OF COMPLAINTS AND COMPLIMENTS

It is important that Senwesko give due consideration to customers who contact us directly by instigating an effective system for dealing with compliments and complaints. A customer who complaints is giving us the opportunity to put things right.

Complaints are attended to at a Plant staff meeting every day. To attend to complaints and to get the employees involved and to communicate to them the importance of customer care, so that processes can be brought in line to meet customer requirements and implementing it successfully. Complaints are monitored in the following categories Production, Raw Material, Transport, Quality, Service and Admin.



SMS SERVICE

Senwesko has implemented a SMS service to let the customer know when the Feed he has ordered is leaving the Mill. This technology is used to keep us in Contact with the clients.

INFORMATION DAYS

Senwesko held information days to inform customers about products and to communicate Senwesko's mission statement and commitment to customer service to our customers.

Todays customers are sophisticated well informed and have high expectations of the sevices they want to reseive. They want speed of sevices and convenience and wil not be sold or manipulated.

14. STOCK CONTROL

- Raw material intake
- Bulk stock out
- Bags storage and picking
- Traffic flow

10/24/2006

Prod Days 22

RAW MATERIAL - STOCK CONTROL INFORMATION - VILJOENSKROON - OCTOBER 2006

Day 16

CODE	RAW MATERIALS	OPENING STOCK	RECEIVED	SALES	PHYSICAL STOCK	THEORETICAL USAGE (OpSt.+Rec-Phys.)	FORMULATED USAGE (PSP)	UTILISED (Batch Reports)	VARIATION % (PSP-Batch/PSP*100	DAYS STOCK (Rel. to Batch reports)	AVE UTILISED (Utilised/Days)	MILLING LOSS (%)	FORMULATED USAGE (Forecast)	VARIATION (Form.Us - Us. Batch Reports	MOISTURE INCLUSION VARIATION (%)
4388	CANOLA OILCAKE	**0.000**	0.000		0.000	0.000	0.000	0.000	#DIV/0!	**#DIV/0!**	0.00			0.000	
7742	**CHOLINE LIQUID**	**11.610**	0.000		12.752	-1.142	0.212	0.019	91.038	**10738.526**	0.00		9.633	9.614	
3120	**CITRUS PULP**	**102.964**	141.500		217.670	26.794	33.291	32.568	2.172	**106.937**	2.04		38.467	5.899	
4052	COPRA OILCAKE	**59.320**	82.320	4.100	51.975	85.565	80.604	77.420	3.950	**10.201**	4.84		90.180	12.760	
3190	**CORN COBS**	**104.574**	0.000		82.989	21.585	25.745	26.245	-1.942	**50.594**	1.64		16.194	-10.051	
2154	CORN WHITE	**611.096**	1637.729		252.919	1995.906	1871.309	1917.221	-2.453	**2.111**	119.83		3000.000	1082.779	
4083	COTTON OILCAKE	**139.830**	217.820	7.800	191.770	158.080	132.263	132.491	-0.172	**21.871**	8.28		192.236	59.745	
4075	COTTON SEED	**26.500**	0.000	7.500	8.550	10.450	9.941	8.961	9.858	**8.311**	0.56		9.561	0.600	
4890	FEATHERMEAL - **CB** {Koster/Mafik	**56.595**	56.820		1.760	111.655	70.310	70.270	0.057	**0.401**	4.39		98.910	28.640	
4891	FEATHERMEAL - **Botshabelo**	**12.880**	105.740		88.375	30.245	66.010	57.050	13.574	**24.785**	3.57		158.080	101.030	
4892	FEATHERMEAL - **Chubby**	**0.000**	0.000		0.000	0.000	0.000	0.000	#DIV/0!	**#DIV/0!**	0.00			0.000	
4939	FISHMEAL	**402.135**	469.660	13.830	685.548	172.417	173.378	170.973	1.387	**59.354**	10.69		236.981	66.008	
4320	FULLFAT	**462.528**	853.590		703.402	612.716	591.968	605.454	-2.278	**18.588**	37.84		1040.028	434.574	
	GEELMEEL	**62.400**	0.000		62.400	0.000	0.000	0.000	#DIV/0!	**#DIV/0!**	0.00			0.000	
3221	GLUTEN	**87.230**	211.280		179.505	119.005	126.380	125.495	0.700	**22.886**	7.84		144.337	18.842	
3225	HOMINY CHOP	**92.448**	342.220		35.021	399.647	384.685	380.453	1.100	**1.473**	23.78		458.176	77.723	
5610	KALKKLIP	**312.649**	663.630		675.986	300.293	356.729	368.085	-3.183	**29.384**	23.01		551.621	183.536	
2949	**LUCERN**	**95.000**	182.140		120.000	157.140	128.916	126.517	1.861	**15.176**	7.91		130.962	4.445	
2949	LUCERN - **Winter Stock**	**0.000**	0.000		0.000	0.000	0.000	0.000	#DIV/0!	**#DIV/0!**	0.00			0.000	
2150	MAIZE	**1977.813**	5832.600		3095.798	4714.615	4696.966	4751.653	-1.164	**10.424**	296.98		8198.333	3446.680	
3201	MAIZE GERM MEAL	**89.898**	157.620		19.806	227.712	223.182	235.577	-5.554	**1.345**	14.72		350.000	114.423	
2155	MAIZE POP	**16.480**	27.860		19.120	25.220	42.200	37.945	10.083	**8.062**	2.37		48.250	10.305	
5840	MCP - **Intaba/Protea**	**220.000**	0.000		82.000	138.000	139.349	140.970	-1.163	**9.307**	8.81		237.521	96.551	
5846	MCP - **SA Feed**	**14.630**	0.000		21.870	-7.240	5.136	4.872	5.140	**71.823**	0.30		14.854	9.982	
6400	**MOLASSES**	**516.504**	206.280	7.480	623.545	91.759	143.222	139.008	2.942	**68.106**	8.69		191.914	52.906	
1011	OLD MEAL	**44.051**	0.000		69.189	-25.138	101.920	95.805	6.000	**11.555**	5.99		155.857	60.052	
4074	PALM OILCAKE	**43.300**	0.000		25.840	17.460	21.553	21.067	2.255	**19.625**	1.32		20.000	-1.067	
4301	PEANUT OILCAKE	**21.800**	16.500		20.250	18.050	18.014	17.633	2.115	**18.375**	1.10		40.000	22.367	
6485	**PLANT OIL**	**22.854**	342.160		63.233	301.781	309.988	307.897	0.675	**3.286**	19.24		525.058	217.161	
3915	POLLARD	**188.375**	561.530		343.683	406.222	402.545	386.921	3.881	**14.212**	24.18		526.340	139.419	
	PRIME GLUTEN - **White**		0.000		0.000	0.000	0.000	0.000	#DIV/0!	**#DIV/0!**	0.00			0.000	
3233	PRIME GLUTEN - **Yellow**	**279.447**	445.260	10.020	531.294	183.393	183.604	186.360	-1.501	**43.287**	11.65		300.000	113.640	
6001	SALT - FINE	**24.250**	34.100	11.980	15.800	30.570	30.503	30.905	-1.318	**5.895**	1.93		51.859	20.954	
6002	SALT - ROLLED	**332.717**	109.730		336.609	105.838	99.242	99.275	-0.033	**54.251**	6.20		160.073	60.798	
5605	SAVANNA GRIT	**60.000**	20.000		18.000	62.000	59.100	56.200	4.907	**5.125**	3.51		108.600	52.400	
3738	**SF HULLS**	**34.609**	92.080		34.000	92.689	89.352	88.907	0.498	**6.119**	5.56		104.563	15.656	
3700	**SOYA HULLS**	**24.840**	0.000		22.200	2.640	2.042	2.042	0.000	**173.947**	0.13		4.088	2.046	
4510	SOYA OILCAKE	**806.075**	2247.580	58.370	788.547	2206.738	2122.884	2132.331	-0.445	**5.759**	133.27		3581.939	1449.608	
4580	SUNFLOWER OILCAKE	**479.969**	201.510		265.362	416.117	410.417	413.299	-0.702	**10.273**	25.83		585.108	171.809	
6501	TRICKMOL	**26.915**	0.000		24.319	2.596	0.000	0.000	#DIV/0!	**#DIV/0!**	0.00		0.810	0.810	
6060	**UREA**	**54.478**	100.900		78.506	76.872	79.224	79.314	-0.114	**15.837**	4.96		137.237	57.923	
2738	WHEAT	**92.969**	0.000		4.247	88.722	116.035	71.956	37.988	**0.944**	4.50			-71.956	
		8011.733	**15360.159**	**121.080**	**9873.841**	**13376.971**	**13348.219**	**13399.159**	**-0.382**			**0.00**	**21517.769**	**8118.610**	**34.74**
										Medication		**0.00**		Medication	**72.54**
										Premix		**0.00**		Premix	**28.03**
												0.00			**135.31**

PELLET QUALITY CHECK

Pelletmill CPM Fab. B **Formula Nr: 5183** **Date: 2006/09/07**

Nr	Fines Test	3.15mm	2.0mm	1mm	0.71mm	0.25mm	0.18mm	Base	< 3.15 mm
1	Fines Post Pelleting	97.52	1.23	0.52	0.1	0.14		0	1.99
2	Fines Post Cooling	97.54	1.03	0.81	0.14	0.19		0	2.17
3	Fines Pre Strorage	97.73	1.64	0.13	0	0.05		0	1.82
4	Fines Post Storage								0
5	Fines Post Delivery								0

Nr	Temp Test	°C		
1	Ambient Temp	15		
2	Temp Pre Conditioning	20		
3	Temp Post Conditioning	58		Standaard
4	Temp Post Pelleting	60	2	(Ideaal 5 tot 10)
5	Temp Post Cooling	19	4.0	(Moet 7 grade hoër wees as ambient)
6	Temp Pre Storage	17	2.0	(Ongeveer gelyk aan ambient)

Nr	Moisture test	%
1	Moisture - Pre moisture add	
2	Moisture Pre Conditioning	11.84
3	Moisture Post Conditioning	13.2
4	Moisture Post Pelleting	13.58
5	Moisture Post Cooling	13.25
6	Moisture Post Storage	13.09

Teiken15%

0.7 tot 1.0 % hoer as die geformuleerde vog. Beheer met lugvloei en retensie

Nr	Grinding size D50	3.15	2	1	0.7	0.25	0.18	0	D50	Standard	PS
1	Maize								0.00	(0.5 - 0.7)	
2	Mixed feed Pre Conditioning	5.73	11.82	30.71	14.46	31.65	4.06	1.19	0.91	(0.5 - 0.7)	

Nr	Pellet durability	%
1	Post Cooling	88
2	Post Storage	

Post Pelleting = At the pellet mill just after the die
Post Cooling = After the cooler
Pre Strorage = Just before the storage bin
Post Storage = At loading
Post Delivery = At delivery. After the auger just before the farm bin

PELLET QUALITY CHECK

Pelletmill LAMEC, Fab. A **Formula Nr: 1443** **Date: 2006/09/07**

Nr	Fines Test	3.15mm	2.0mm	1mm	0.71mm	0.25mm	0.15mm	Base	< 3.15 mm
1	Fines Post Pelleting	87.29	3.41	4.63	1.66	2.06		0.38	12.14
2	Fines Post Cooling	98.34	0.91	0.16	0.04	0.11		0.08	1.3
3	Fines Pre Strorage	97.66	0.94	0.49	0.18	0.25		0	1.86
4	Fines Post Storage						0		0
5	Fines Post Delivery								0

Nr	Temp Test	°C		
1	Ambient Temp	20		
2	Temp Pre Conditioning	22		
3	Temp Post Conditioning	73		Standaard
4	Temp Post Pelleting	80	7	(Ideaal 5 tot 10)
5	Temp Post Cooling	27	7.0	(Moet 7 grade hoër wees as ambient)
6	Temp Pre Storage	19	-1.0	(Ongeveer gelyk aan ambient)

Nr	Moisture test	%
1	Moisture - Pre moisture add	
2	Moisture Pre Conditioning	10.92
3	Moisture Post Conditioning	13.67
4	Moisture Post Pelleting	14.11
5	Moisture Post Cooling	11.36
6	Moisture Post Storage	11.44

Teiken15%

0.7 tot 1.0 % hoer as die geformuleerde vog. Beheer met lugvloei en retensie

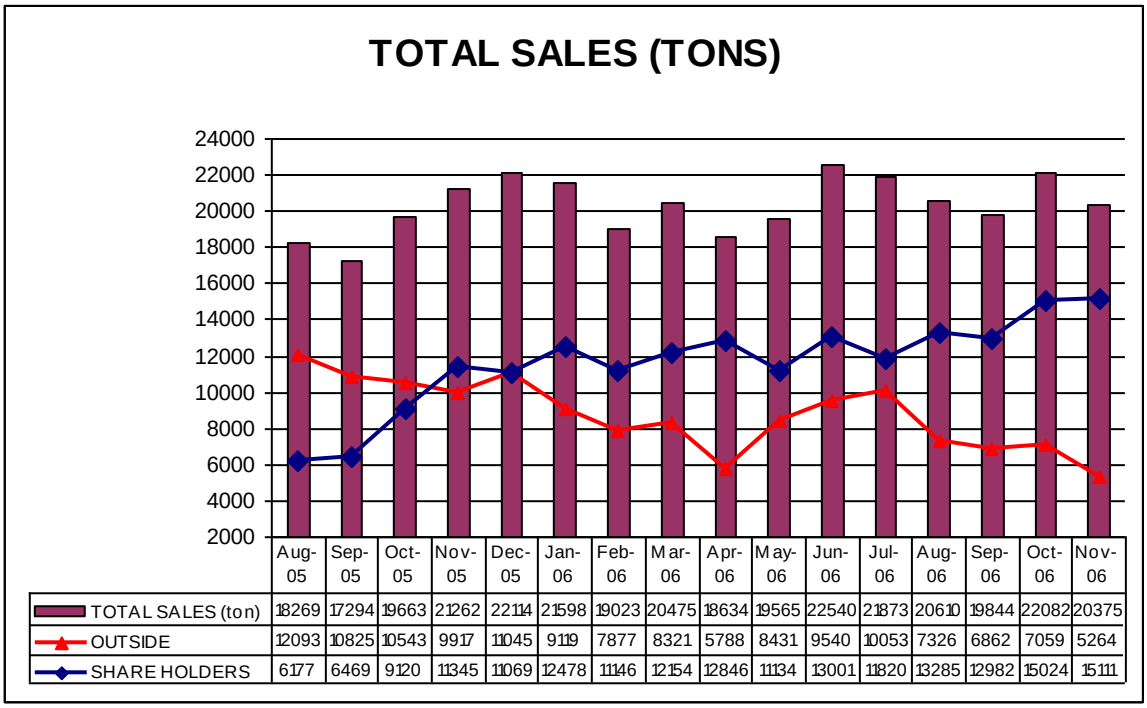
Nr	Grinding size D50	3.15	2	1	0.7	0.25	0.15	0	D50	Standard	PS
1	Maize								0.00	(0.5 - 0.7)	
2	Mixed feed Pre Conditioning	7.08	6.93	34.78	23.88	26.06	0.79	0.09	0.94	(0.5 - 0.7)	

Nr	Pellet durability	%
1	Post Cooling	77.2
2	Post Storage	

Post Pelleting = At the pellet mill just after the die
Post Cooling = After the cooler
Pre Strorage = Just before the storage bin
Post Storage = At loading
Post Delivery = At delivery. After the auger just before the farm bin

16. MARKET STRATEGY

All the data to the period August 2005 to November 2006. The objective is to manage volumes in excess of 24,000 tons in the short term and growth towards 30,000 tons. The business should not only originate from the shareholders volumes but should show significant growth in outside business.



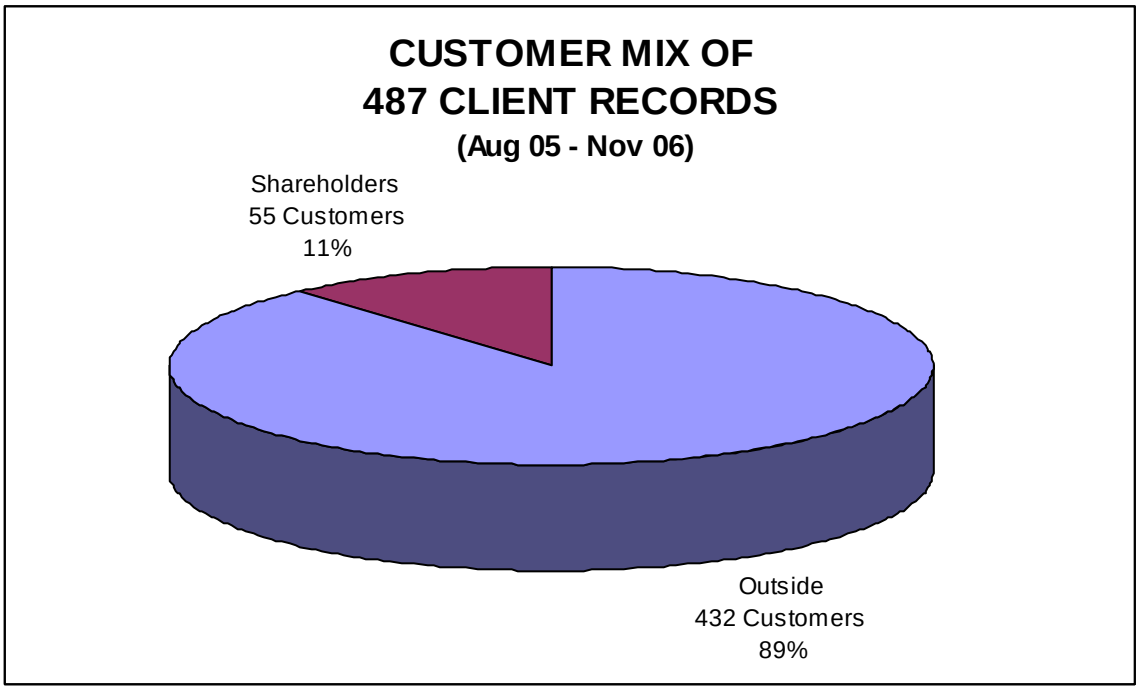
	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
TOTAL SALES (ton)	18269	17294	19663	21262	22114	21598	19023	20475	18634	19565	22540	21873	20610	19844	22082	20375
OUTSIDE	12093	10825	10543	9917	11045	9119	7877	8321	5788	8431	9540	10053	7326	6862	7059	5264
SHARE HOLDERS	6177	6469	9120	11345	11069	12478	11146	12154	12846	11134	13001	11820	13285	12982	15024	15111

From the above graph it is clear that there is not a significant increase in total sales volume, that there is a constant growth in the shareholder business and a negative growth in outside business. The marketing strategy should be able to establish the reasons for the above trends and to track down any lost business in each area. More important is to set new sales targets to increase the outside business and grow our volumes to 25000 tons per month. In order to reach these targets we must analyze the history of each area of a specific advisor/representative.

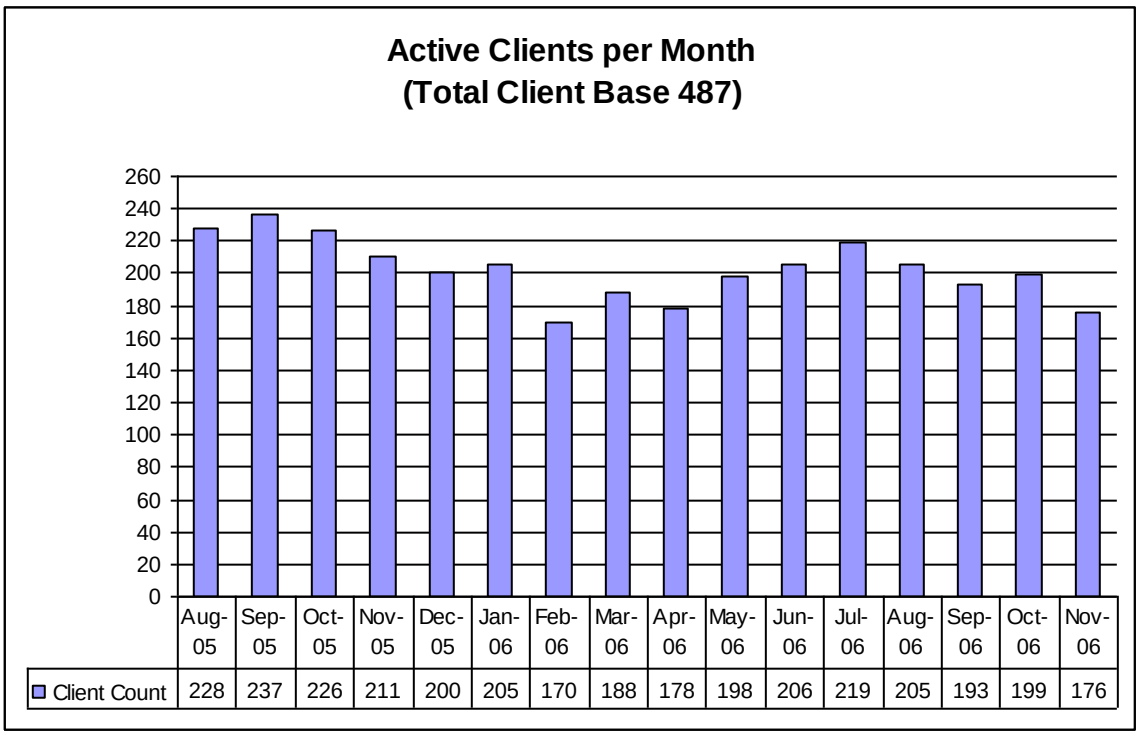
It is important to note that new areas for the advisors were only effective from the 1st October 2006, and that all the data before that time, is only history and does not refers to the performance of the advisor in that specific area before 1st October 2006. Therefore the performance of the advisors can only be judged from 1st October 2006 onwards. The reason for the sales history before the 1st October 2006 is only to allow us to have a global view of the area and to assist the advisors in tracking down any lost business and to establish long term volume growth.

CUSTOMER ANALYSIS

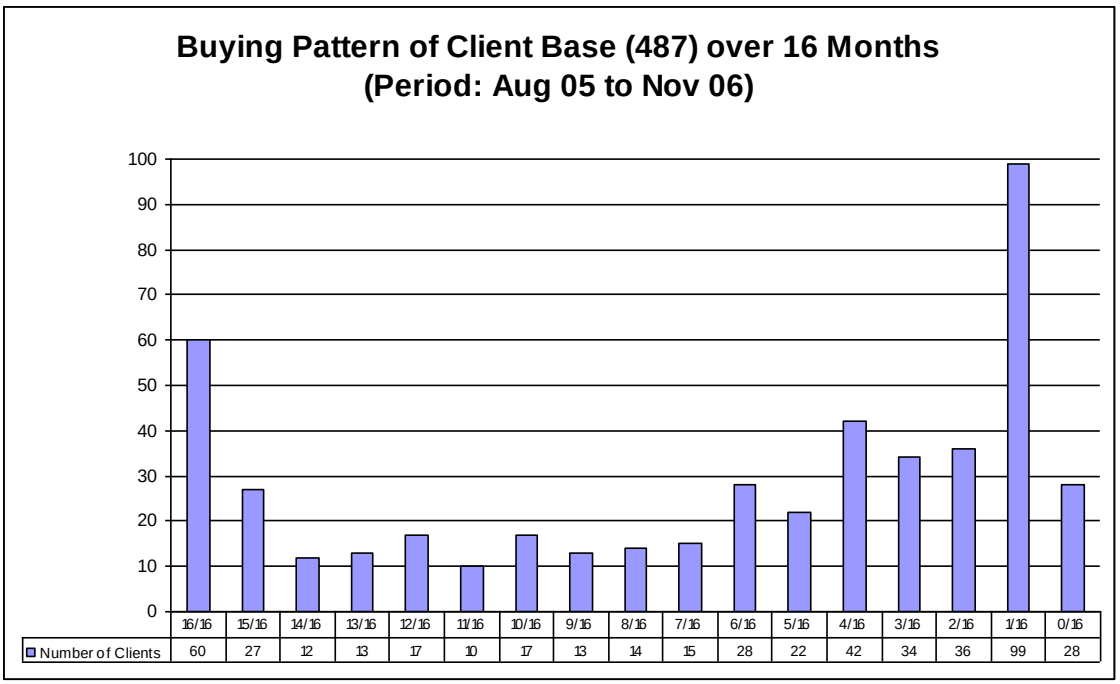
Since August 2005 we have records of 487 clients. Although there is currently 55 shareholder customers, these customers contributes to 75% of the total sales. The remaining 432 outside customers only contributes to 25% of the total sales. The advisors are mainly responsible for the outside customers.



Although we have records of 487 customers, only 200 of them are active each month. The following graph shows the buying pattern of these 487 customers. The 200 active customers are not the same ones each month and the detail of the sales patterns per area can be seen in the attachment. Since July 2006 there is a decline in the active customer number. The conclusion from this is that we are losing outside customers because there is a negative growth in outside business but a positive growth in shareholder business. Overall the active clients also tend to decline. One observation from the data is that the lost business is mainly the smaller ones which may be one of the reasons for the decline in active customer's numbers.



If we look at the buying pattern of the customer base over the past 16 months, it became clear that only 60 customers bought feed each month (16/16). Also 99 customers bought once (1/16).



From this data a list of lost customers was compiled. Because of the buying patterns of the customers, a lost customer is defined as one that didn't bough any feed for the last 5 months. According to this definition the following customers are defined as lost customers. A total of 165 customers are classified as lost customers since August 2005, and these contribute to an average of 807 tons per month lost business. It is expected from each advisor to give detailed feedback on every lost customer before 11th January 2007.

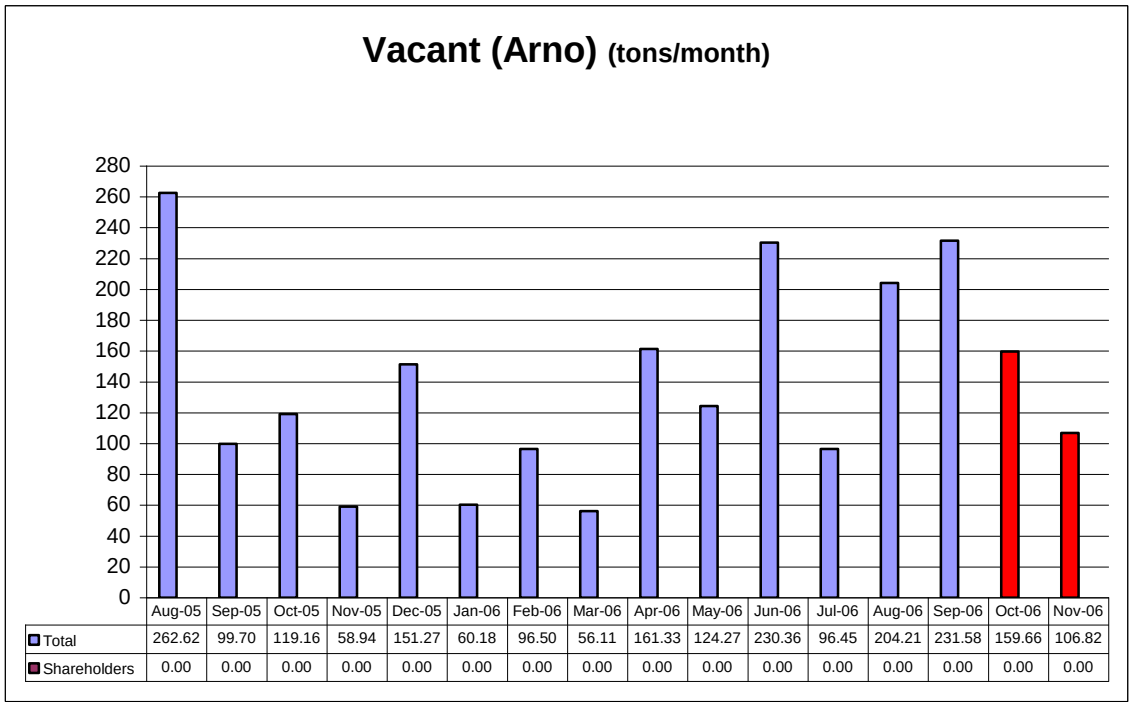
Current Rep	Client Name	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Total
Arno Engelbrecht	TWK DUNDEE	0.00	3.00	16.00	0.00	2.40	0.00	0.00	0.00	0.00	14.80	0.00	**36.20**
Carel Pollard	LINTIA BOERDERY (EDMS) BPK	79.23	75.42	85.40	69.98	88.10	80.28	79.12	94.04	96.82	99.38	52.88	**900.65**
Carel Pollard	AGRI CHICKS BK	37.97	68.52	18.03	52.14	46.13	40.24	0.00	0.00	0.00	0.00	0.00	**263.02**
Carel Pollard	EP D. COETZER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Carel Pollard	EP H VAN VUUREN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Carel Pollard	EP JP PRINSLOO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Carel Pollard	EP N. WILKENS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Carel Pollard	EP R V/D VYVER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Carel Pollard	EP S WILKENS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Carel Pollard	KONTANTVERKOPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Carel Pollard	KONTANTVERKOPE VILJOENSKROON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frans Bonthuys	TWK BETHAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	**8.00**
Frans Bonthuys	OBARO ALMA-DEPOT	0.00	11.70	0.00	14.00	20.00	0.00	0.00	0.00	31.80	0.00	0.00	**77.50**
Frans Bonthuys	DE LA REY R.	10.06	0.00	0.00	8.44	0.00	0.00	10.60	0.00	9.62	0.00	0.00	**38.72**
Frans Bonthuys	DERRIN BELEGGINGS EDMS BPK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	**5.00**
Frans Bonthuys	OBARO SKUINSDRIFT	0.00	10.00	12.00	0.00	6.30	0.00	0.00	0.00	0.00	0.00	0.00	**28.30**
Frans Bonthuys	TWK BELFAST	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	**6.00**
Frans Bonthuys	B.K.B. ERMELO	0.00	0.00	0.00	6.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**6.75**
Frans Bonthuys	O.T.K LYDENBURG	0.00	0.00	30.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**30.05**
Frans Bonthuys	O.T.K. CULLINAN	0.00	0.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**6.90**
Frans Bonthuys	O.T.K. BRONKHORSTSPRUIT	0.00	0.00	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.60**
Frans Bonthuys	O.T.K. KAALFONTEIN	4.00	0.00	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**7.90**
Frans Bonthuys	ALZU ONDERNEMINGS EDMS BPK	0.00	22.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**22.80**
Frans Bonthuys	LEOMARI BOERDERY BK	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**10.00**
Frans Bonthuys	OBARO GROBLERSDAL	0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**6.00**
Frans Bonthuys	OBARO MARBLE HALL	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.00**
Frans Bonthuys	KONTANTVERKOPE	34.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**34.00**
Frans Bonthuys	J & I ZUGER (PTY) LTD	16.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**16.04**
Frans Bonthuys	N.T.K. ELLISRAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frans Bonthuys	N.T.K. NYLSTROOM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frans Bonthuys	O.T.K. BELFAST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frans Bonthuys	O.T.K. BETHAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frans Bonthuys	O.T.K. DELMAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frans Bonthuys	O.T.K. STANDERTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frans Bonthuys	O.T.K. STOFFBERG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Frik Groenewald	D'ALEBOUT NSK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.75	**6.75**
Frik Groenewald	PRINSLOO JC	1.00	1.25	2.00	4.45	0.70	2.00	0.10	0.60	1.00	0.00	0.50	**13.60**
Frik Groenewald	AGRI VERSKAFFERS NOORDWES PTY	0.00	0.00	0.00	0.00	40.60	10.00	30.96	10.00	21.70	20.90	0.00	**134.16**
Frik Groenewald	LANG M	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.30	16.00	0.00	**22.30**
Frik Groenwewald	ALFRED MURRAY SMIT TRUST	0.00	0.00	0.00	0.00	0.00	4.00	0.00	4.00	4.00	0.00	0.00	**12.00**
Frik Groenwewald	UNIKUM LANDGOED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	**1.00**
Frik Groenwewald	VAN NIEKERK H.J.	0.85	0.65	0.80	0.30	0.90	0.00	0.00	0.00	0.30	0.00	0.00	**3.80**
Frik Groenewald	STRYDOM JJ	0.00	22.00	23.00	0.00	0.00	0.00	0.00	25.10	0.00	0.00	0.00	**70.10**
Frik Groenewald	DE KLERK A.	24.26	63.18	16.08	16.00	16.00	16.00	15.50	0.00	0.00	0.00	0.00	**167.02**
Frik Groenewald	DORVEN FOODS & FEEDS CC	0.00	0.00	7.50	0.00	3.80	0.00	7.50	0.00	0.00	0.00	0.00	**18.80**
Frik Groenewald	PETERSEN V.B.	0.00	0.00	5.00	0.00	0.00	0.00	2.55	0.00	0.00	0.00	0.00	**7.55**
Frik Groenewald	VAN DER SCHYFF. P.J.	0.00	0.50	0.60	0.30	1.20	0.65	0.95	0.00	0.00	0.00	0.00	**4.20**
Frik Groenewald	GR CORNISH CHICKEN FARMS	71.66	74.40	91.19	55.44	82.33	81.60	0.00	0.00	0.00	0.00	0.00	**456.61**
Frik Groenewald	HUDSON NJ (JNR)	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.00**
Frik Groenwewald	O.T.K. GOEIEHOEK	4.00	5.51	0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**16.51**
Frik Groenewald	NORMEL TRUST	45.62	30.66	32.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**108.34**
Frik Groenwewald	MEYER A.P.S.	9.00	9.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**27.00**

Current Rep	Client Name	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Total
Frik Groenewald	DU PLOOY C.F.	0.00	0.00	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**3.30**
Frik Groenewald	HENDRIKS R	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**6.00**
Frik Groenewald	LE ROUX E.	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**3.00**
Frik Groenewald	VREDEFORT TAK 1970	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.75**
Frik Groenewald	O.T.K. BERGSIG	7.25	-1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.65**
Fouche / Tegnies	KONTANTVERKOPE	72.18	41.15	74.37	57.26	90.46	60.92	61.79	98.08	34.57	52.76	0.00	**643.55**
Fouche / Tegnies	LOSKOP BOERDERY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	**0.08**
Fouche / Tegnies	CB SEASONS STAR TRAINING	0.00	0.00	0.00	0.00	0.00	64.54	146.75	40.38	0.00	0.00	0.00	**251.67**
Fouche / Tegnies	CB MARTIN FAMILIE TRUST	0.00	68.72	303.73	120.11	235.03	292.62	108.48	0.00	0.00	0.00	0.00	**1,128.68**
Fouche / Tegnies	CB PIETER ERNST	0.00	12.06	74.80	18.28	82.28	0.00	0.00	0.00	0.00	0.00	0.00	**187.42**
Fouche / Tegnies	PROEWE	0.00	7.45	0.60	0.20	-0.20	0.00	0.00	0.00	0.00	0.00	0.00	**8.05**
Fouche / Tegnies	BADENHORST PA	0.00	0.00	5.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.25**
Fouche / Tegnies	CB KBMB TRUST	234.64	-29.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**205.24**
Fouche / Tegnies	CB COBUS CAMPHER BK	134.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**134.54**
Fouche / Tegnies	CB GOLDEN TATTOO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Fouche / Tegnies	CB TIGANE PROJECT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Henk Kemp	B.K.B. PHILIPSTOWN	0.00	4.00	12.95	-0.05	9.40	8.00	0.00	0.00	0.00	0.00	20.00	**54.30**
Henk Kemp	O.V.K.K. FAURESMITH	0.00	0.00	0.00	0.00	0.00	3.40	0.00	-0.01	0.00	0.00	16.40	**19.79**
Henk Kemp	GRIEKWALAND WESKOOP DE AAR (A)	0.00	106.00	90.86	169.75	245.30	209.35	245.80	141.40	35.00	0.00	15.00	**1,243.16**
Henk Kemp	B.K.B. PHILLIPOLIS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	**2.00**
Henk Kemp	SWL HARTSWATER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	0.00	**15.00**
Henk Kemp	TRI-STAR CUSTOM FEEDERS (PTY)	35.00	35.00	35.00	61.15	40.00	0.00	31.35	0.00	0.00	0.00	0.00	**237.50**
Henk Kemp	GRIEKWALAND WES, BARKLEY WES	12.65	18.35	8.20	14.10	12.70	5.90	1.00	0.00	0.00	0.00	0.00	**72.90**
Henk Kemp	B.K.B. HANOVER	0.00	1.60	4.80	2.40	4.00	8.00	0.00	0.00	0.00	0.00	0.00	**20.80**
Henk Kemp	SWL AMALIA	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.00**
Henk Kemp	O.V.K.K. HOPETOWN	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.50**
Henk Kemp	HOOPSTAD TAK	4.35	-0.35	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**6.00**
Henk Kemp	SWL MAKWASSIE	8.06	8.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**16.12**
Henk Kemp	HAYWARD. WJA	38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**38.50**
Henk Kemp	O.V.K.K. BRITSTOWN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Jan Schreuder	AGRI ORANJE GROBLERSHOOP	0.00	66.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**66.60**
Jan Schreuder	GRIEKWALAND WES, GRIEKWASTAD	4.20	6.40	6.55	6.80	8.65	0.00	0.00	0.00	0.00	0.00	33.92	**66.52**
Jan Schreuder	SWL REIVILO	5.00	5.00	5.00	0.00	0.00	5.20	0.00	0.00	0.00	0.00	0.00	**20.20**
Jan Schreuder	KONTANTVERKOPE	0.00	2.60	9.40	1.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	**13.08**
Jan Schreuder	GRIEKWALAND WES, HARTSVALLEI	0.85	0.84	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.24**
Jan Schreuder	GRIEKWALAND WESKOOP GROBLERS A	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**3.50**
Jan Schreuder	K.L.K. UPINGTON	0.00	25.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**25.90**
Jan Schreuder	KAAP AGRI UPINGTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Jan Schreuder	UPIGROW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Vakant / Johan Lotter	NATALAGRI ALEXANDRIA	10.00	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	**22.40**
Vakant / Johan Lotter	AGRA (CO-OP) LTD	18.00	48.05	38.80	-0.08	8.52	7.30	0.00	0.00	0.00	15.75	0.00	**136.34**
Vakant / Johan Lotter	KAAP AGRI EENDEKUIL	0.00	0.00	0.00	0.00	0.00	10.20	0.00	12.00	0.00	9.80	0.00	**32.00**
Vakant / Johan Lotter	KAAP AGRI CERES	0.00	0.00	0.00	0.00	0.00	4.40	0.00	5.40	0.00	4.00	0.00	**13.80**
Vakant / Johan Lotter	KAAP AGRI PORTERVILLE	0.00	0.00	0.00	4.80	0.00	6.20	0.00	4.00	0.00	2.80	0.00	**17.80**
Vakant / Johan Lotter	KAAP AGRI WOLSELEY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	**1.00**
Vakant / Johan Lotter	K.L.K. CALVINIA	0.00	0.00	0.00	22.40	17.12	10.40	21.60	25.70	34.00	0.00	0.00	**131.22**
Vakant / Johan Lotter	KAAP AGRI OP-DIE-BERG	0.00	0.00	0.00	0.00	0.00	4.20	-1.20	6.00	0.00	0.00	0.00	**9.00**
Vakant / Johan Lotter	WPK DURBANVILLE AGRIMARK	0.00	0.00	0.00	0.00	0.00	2.00	1.60	3.00	0.00	0.00	0.00	**6.60**
Vakant / Johan Lotter	KAAP AGRI SIMONDIUM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	**0.90**
Vakant / Johan Lotter	CRK LANDBOU BEPERK	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	**2.25**
Vakant / Johan Lotter	WPK BONNIEVALE AGRIMARK	1.40	0.56	0.00	4.30	0.00	-0.32	1.80	0.00	0.00	0.00	0.00	**7.74**
Vakant / Johan Lotter	CRK RIVIERSONDEREND	0.00	0.00	0.00	0.00	0.00	27.20	0.00	0.00	0.00	0.00	0.00	**27.20**
Vakant / Johan Lotter	NAMAKWALANDSE L/BOU KOOPERASIE	0.00	0.00	0.00	0.00	0.00	27.20	0.00	0.00	0.00	0.00	0.00	**27.20**
Vakant / Johan Lotter	B.K.B. PORT ELIZABETH	0.00	0.00	0.00	0.00	0.00	8.90	0.00	0.00	0.00	0.00	0.00	**8.90**
Vakant / Johan Lotter	WPK RIEBEEK -WES AGRIMARK	0.00	0.00	0.00	8.40	3.20	6.00	0.00	0.00	0.00	0.00	0.00	**17.60**
Vakant / Johan Lotter	B.K.B ABERDEEN	0.00	0.00	0.00	0.00	0.00	3.20	0.00	0.00	0.00	0.00	0.00	**3.20**
Vakant / Johan Lotter	VILLIERSDORP KOOPERASIE BEPERK	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.00**
Vakant / Johan Lotter	DOORNKLOOF DIEREKLINIEK BK	6.25	0.00	0.00	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**12.85**
Vakant / Johan Lotter	B.K.B STEYDLERVILLE	0.00	0.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**13.00**
Vakant / Johan Lotter	VOERMEESTER (EDMS) BEPERK	0.00	0.00	10.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**10.24**
Vakant / Johan Lotter	O.V.K.K MORTIMER	0.00	4.80	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**8.80**
Vakant / Johan Lotter	B.K.B. CRADOCK	4.00	0.00	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.60**
Vakant / Johan Lotter	BOLAND AGRI (EDMS)PK	0.00	8.00	0.00	0.00	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	**7.96**
Vakant / Johan Lotter	VILLIERSDORP KOOPERASIE BEPERK	7.58	0.05	0.00	-1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.97**
Vakant / Johan Lotter	O.V.K.K. GRAAFF-REINET	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**11.00**
Vakant / Johan Lotter	WES KAROO KOOPERASIE BPK	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.23**
Vakant / Johan Lotter	CRK KRIGE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Vakant / Johan Lotter	GUILD DRAKENSTEIN GEVANGENIS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Vakant / Johan Lotter	CRK CALEDON STOOR	0.00	0.00	-4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**-4.00**
Johnny Esterhuizen	O.V.K.K. JAMESTOWN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.00	**33.00**
Johnny Esterhuizen	B.K.B. ALIWAL-NOORD	17.75	0.00	10.00	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	10.00	**37.70**
Johnny Esterhuizen	O.V.K.K. TWEESPRUIT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70	**3.70**
Johnny Esterhuizen	O.V.K.K. ROSENDAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	-0.50	31.00	0.00	**37.00**
Johnny Esterhuizen	BULTFONTEIN (WELMAN)	0.00	0.00	0.00	0.00	16.00	8.00	0.00	8.00	5.00	16.00	0.00	**53.00**
Johnny Esterhuizen	O.K.K. STERKSTROOM	0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	30.60	0.00	0.00	**36.60**

Current Rep	Client Name	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Total
Johnny Esterhuizen	O.V.K.K. WEPENER	12.70	0.00	0.00	0.00	0.00	2.25	0.00	50.00	17.50	0.00	0.00	**82.45**
Johnny Esterhuizen	BOSMAN PF	10.15	5.10	5.00	10.00	8.25	10.05	10.05	16.10	9.50	0.00	0.00	**84.20**
Johnny Esterhuizen	O.V.K.K. ZASTRON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	**10.00**
Johnny Esterhuizen	TRIPLE S ONDERNEMINGS	2.15	1.00	1.00	2.00	1.00	1.10	7.05	8.20	0.00	0.00	0.00	**23.50**
Johnny Esterhuizen	O.V.K.K. ROSENDAL	36.70	6.00	0.00	12.50	0.00	6.60	0.00	0.00	0.00	0.00	0.00	**61.80**
Johnny Esterhuizen	O.T.K. SENEKAL	0.00	0.00	9.80	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**11.80**
Johnny Esterhuizen	STEYN G.J	26.30	15.40	10.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**51.95**
Johnny Esterhuizen	MALUTI FOODS TRUST	463.23	115.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**578.67**
Johnny Esterhuizen	KONTANTVERKOPE	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.75**
Johnny Esterhuizen	DEWETSDORP TAK 1970	26.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**26.75**
Johnny Esterhuizen	B.K.B. ZASTRON	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**14.50**
Johnny Esterhuizen	SMITHFIELD TAK 1970	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**12.00**
Johnny Esterhuizen	BRANDFORT TAK 1970	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.00**
Johnny Esterhuizen	O.V.K.K. CLOCOLAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Johnny Esterhuizen	O.V.K.K. DORDRECHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Kobus Prinsloo	O.V.K.K. ARLINGTON	0.00	15.50	0.00	13.50	4.00	0.00	0.00	4.50	0.00	0.00	24.90	**62.40**
Kobus Prinsloo	VKB ORANJEVILLE	0.00	9.70	0.00	0.00	0.00	0.00	0.00	10.50	0.00	0.00	12.50	**32.70**
Kobus Prinsloo	CROUS GJ	0.35	10.04	10.26	10.20	10.02	9.82	12.06	10.05	10.08	10.56	11.97	**105.41**
Kobus Prinsloo	VKB PETRUS STEYN	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.50	**26.50**
Kobus Prinsloo	VKB WARDEN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	**5.00**
Kobus Prinsloo	LOMBARD.H.N.	16.00	40.28	42.68	43.34	48.88	43.92	38.84	42.38	38.96	24.88	0.00	**380.16**
Kobus Prinsloo	VKB VILLIERS	0.00	0.00	8.85	5.00	0.00	7.40	0.00	10.00	0.00	0.00	0.00	**31.25**
Kobus Prinsloo	VKB REITZ	0.00	8.45	0.00	0.00	0.00	0.00	0.00	8.55	0.00	0.00	0.00	**17.00**
Kobus Prinsloo	VAN RENSBURG FAMILIE TRUST	0.00	6.30	6.02	6.00	5.98	0.00	0.00	0.00	0.00	0.00	0.00	**24.30**
Kobus Prinsloo	O.V.K.K FRANKFORT	11.00	4.60	0.00	9.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**25.55**
Kobus Prinsloo	VAN NIEKERK A.P.	10.20	0.00	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**20.50**
Kobus Prinsloo	PIENAAR J.A.	0.00	6.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**6.65**
Kobus Prinsloo	VKB DANIELSRUS	0.00	5.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.05**
Kobus Prinsloo	BKB VREDE	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**3.00**
Kobus Prinsloo	STEYNSRUS TAK 1970	87.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**87.90**
Kobus Prinsloo	LINDLEY TAK 1970	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**16.60**
Kobus Prinsloo	HENNENMAN TAK 1970	9.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**9.25**
Kobus Prinsloo	TIERFONTEIN TAK 1970	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.90**
Kobus Prinsloo	NATALAGRI KROONSTAD	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.50**
Kobus Prinsloo	LAGERSKRAAL TAK 1970	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.95**
Kobus Prinsloo	HEILBRON TAK 1971	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Kobus Prinsloo	RIEMLAND LANDBOU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Kobus Prinsloo	VKB HEILBRON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
													9,676
													806

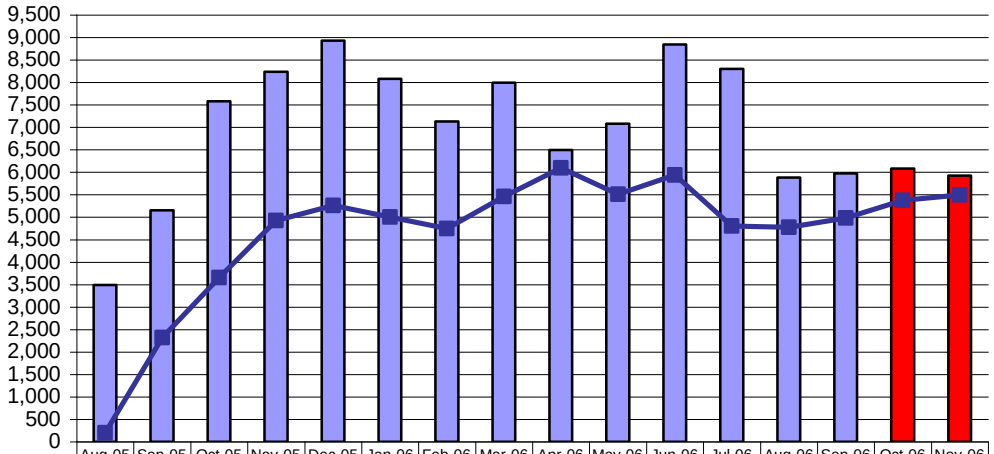
SALES AREA EVALUATION

The following graphs give a sales history of the specific areas. These graphs were compiled by taking the sales history of all the customers in that area, and assigned the history of the customers to the advisor now appointed in the specific area in order to give a picture of the area potential and past performance of the area. It must be noted again that the new areas for the advisors were only effective from the 1st October 2006, and that all the data before that time (blue bars of the graph), is only history and does not refers to the performance of the advisor in that specific area before 1st October 2006. Therefore the performance of the advisors can only be judged from 1st October 2006 onwards (the red bars of the graph).



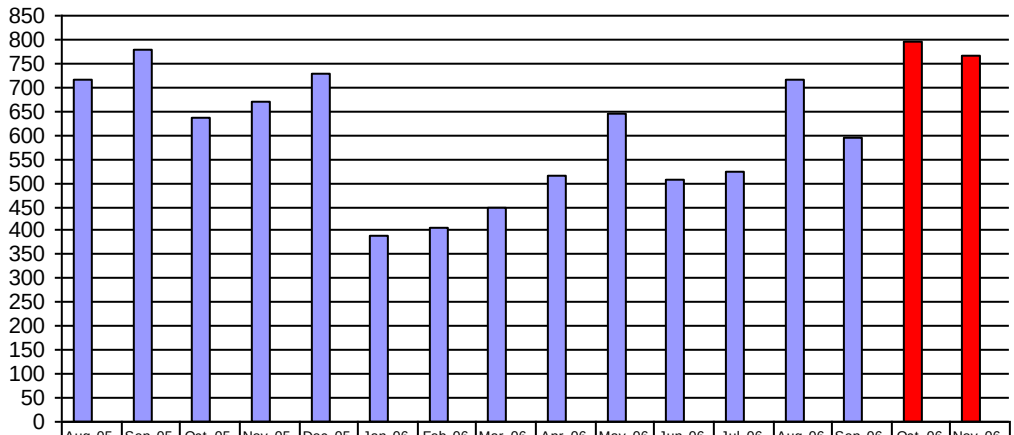
	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	262.62	99.70	119.16	58.94	151.27	60.18	96.50	56.11	161.33	124.27	230.36	96.45	204.21	231.58	159.66	106.82
Shareholders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Carel Pollard (tons/month)



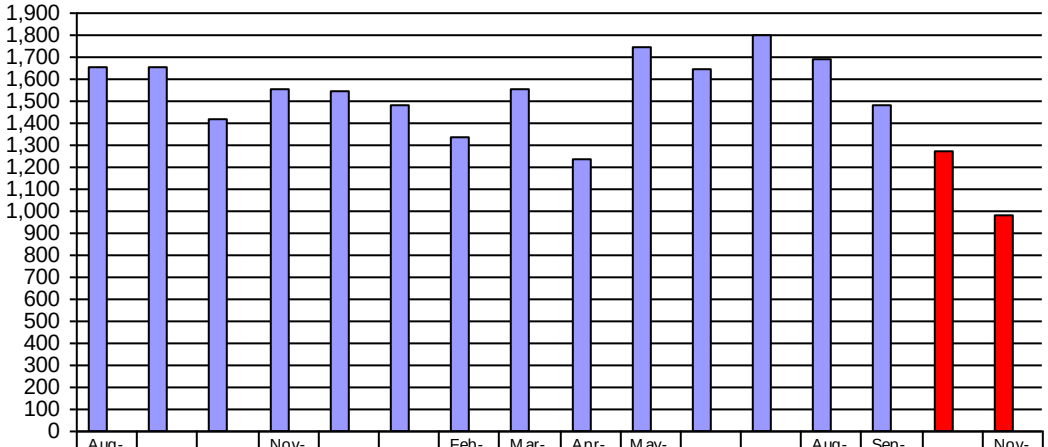
	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	3,492.4	5,150.8	7,578.6	8,238.5	8,925.7	8,082.9	7,128.4	7,991.3	6,495.2	7,082.5	8,840.9	8,297.7	5,879.4	5,974.8	6,080.3	5,923.7
Shareholders	201.00	2,316.7	3,657.5	4,925.7	5,262.4	5,005.4	4,743.4	5,458.5	6,094.4	5,508.7	5,938.1	4,806.1	4,772.6	4,983.3	5,376.3	5,492.9

Frans Bonthuys (tons/month)



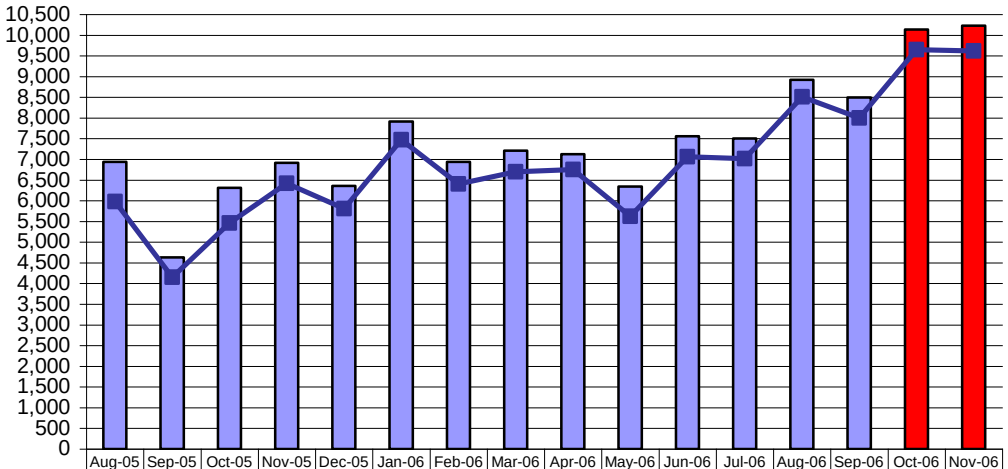
	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	716.41	778.31	635.93	670.87	726.64	391.27	406.38	448.86	514.89	645.80	506.51	521.35	713.94	595.15	794.49	764.27
Shareholders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Frik Groenewald (tons/month)

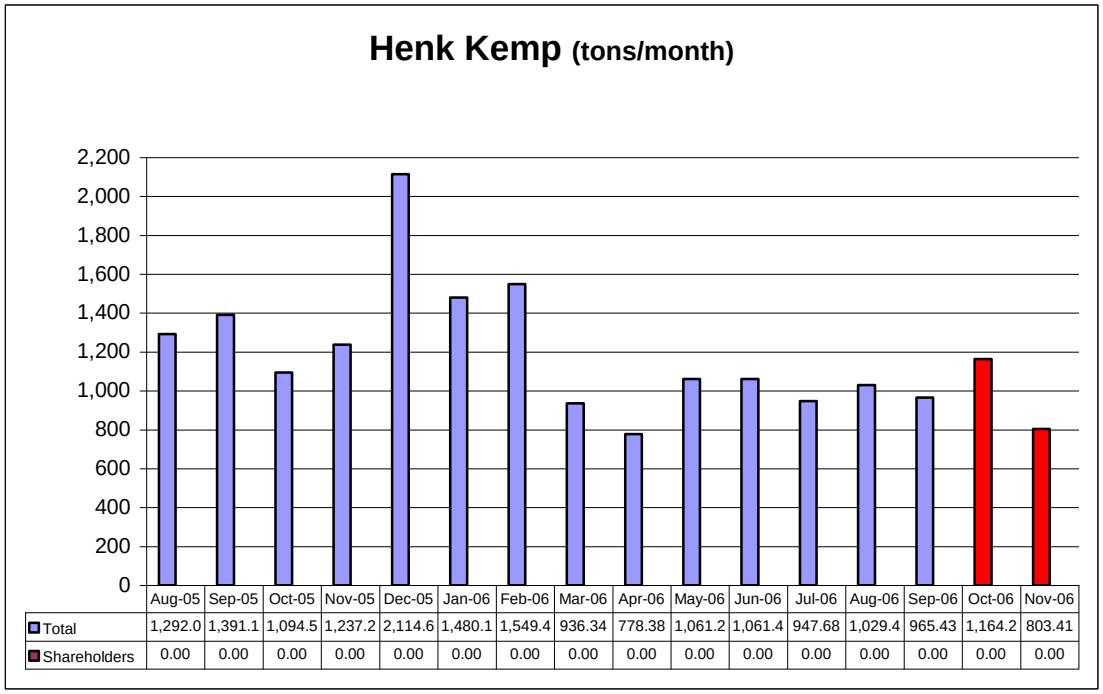


	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	1,655.90	1,651.99	1,419.66	1,556.77	1,541.39	1,480.5	1,335.6	1,553.06	1,234.0	1,747.22	1,645.8	1,801.90	1,693.2	1,485.14	1,274.3	980.38
Shareholders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

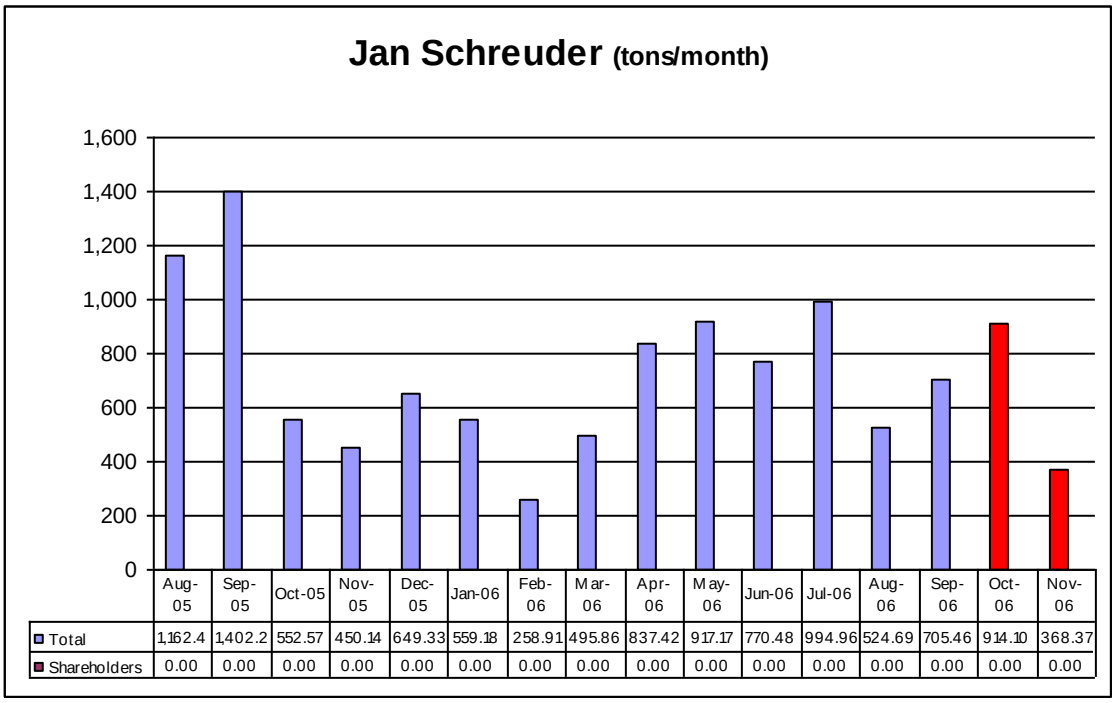
Fouche / Tegnies (tons/month)



	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	6,936.6	4,627.6	6,311.5	6,912.0	6,356.2	7,910.3	6,934.5	7,210.8	7,125.7	6,339.2	7,555.0	7,503.4	8,916.6	8,492.7	10,136.	10,226.
Shareholders	5,975.6	4,152.4	5,462.7	6,418.7	5,806.3	7,472.8	6,402.2	6,695.2	6,751.2	5,625.4	7,062.3	7,013.9	8,512.1	7,998.2	9,647.2	9,618.5

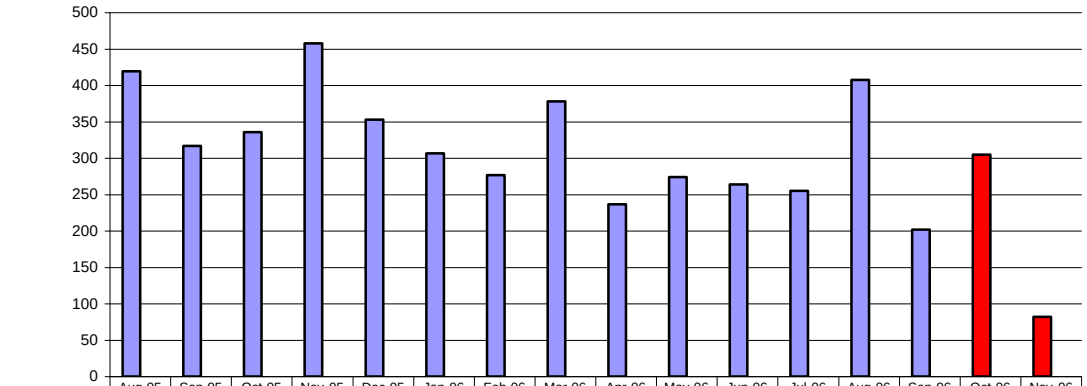


	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	1,292.0	1,391.1	1,094.5	1,237.2	2,114.6	1,480.1	1,549.4	936.34	778.38	1,061.2	1,061.4	947.68	1,029.4	965.43	1,164.2	803.41
Shareholders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



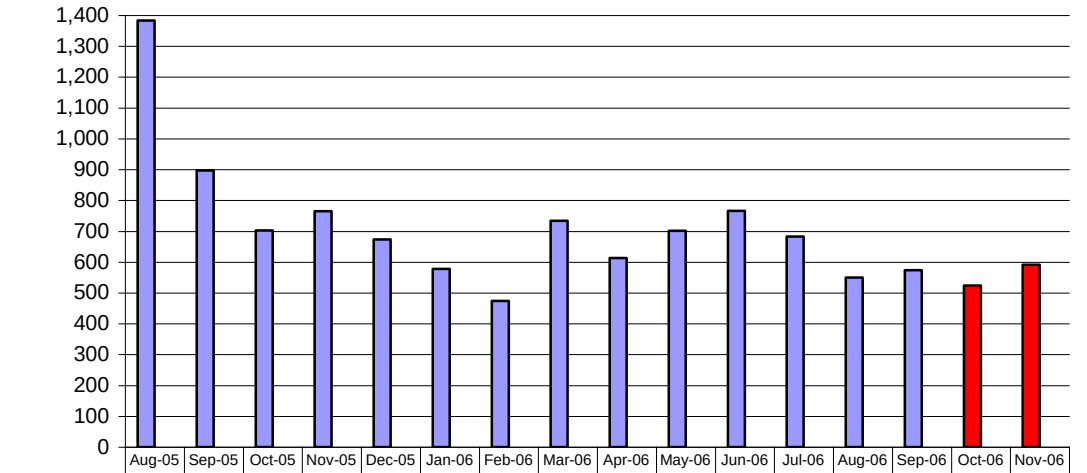
	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	1,162.4	1,402.2	552.57	450.14	649.33	559.18	258.91	495.86	837.42	917.17	770.48	994.96	524.69	705.46	914.10	368.37
Shareholders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vacant (Hannes, Pieter) (tons/month)

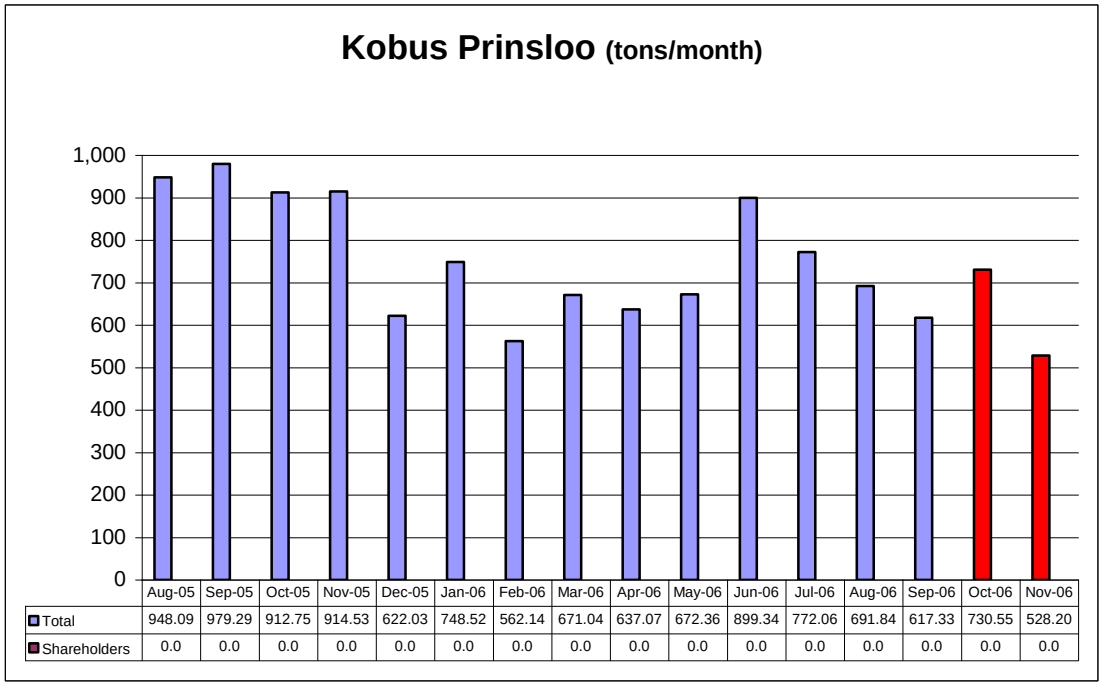


	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	419.43	316.87	335.84	457.68	352.70	306.58	276.67	377.86	236.69	274.11	263.92	255.23	407.52	201.84	304.89	82.00
Shareholders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Johnny Esterhuizen (tons/month)



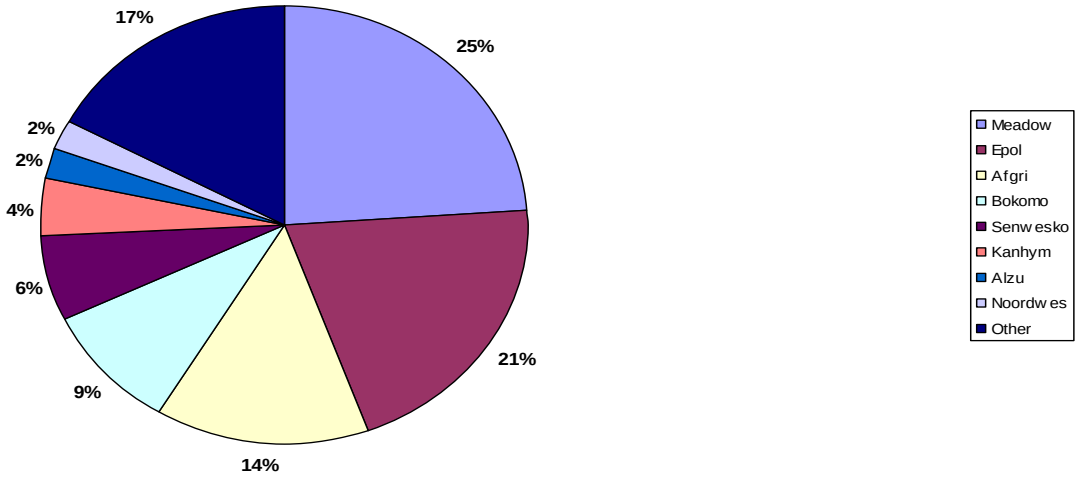
	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06
Total	1,383.2	896.51	702.63	765.04	673.72	577.91	474.09	733.42	612.91	701.13	766.33	682.60	549.53	574.13	523.33	591.73
Shareholders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



The following table gives a summery of the performance of the different areas for the month of November 2006. The table also gives the target for each advisor for new business that he must generate from his area to reach the short term goal of 25000 tons per month.

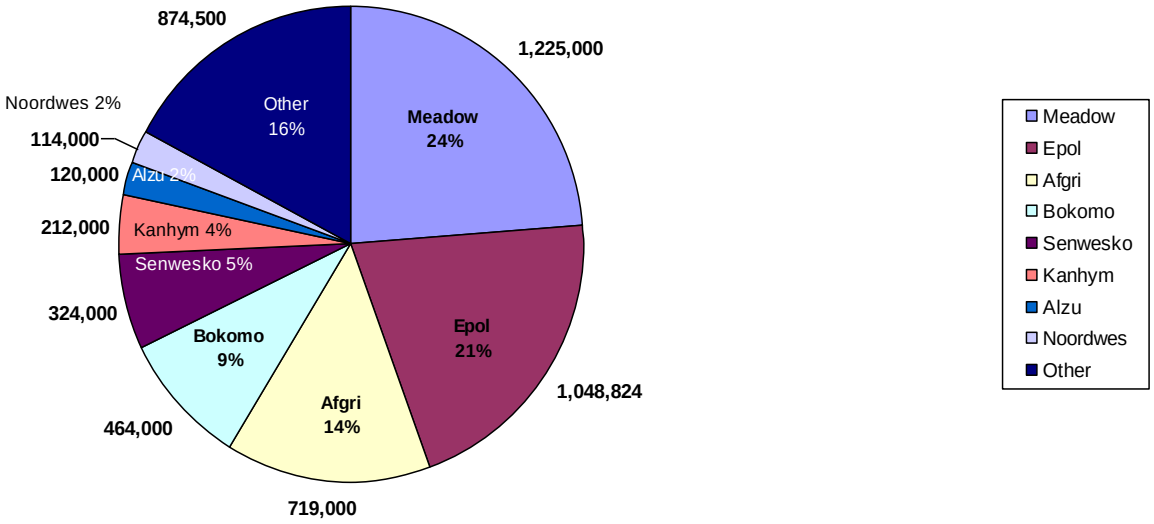
		Sales November 2006				Period: August 05 to November 06		
Advisor / Employer	**New Business Target (ton)**	**Total sales (ton)**	**Shareholder sales (ton)**	**Outside sales (ton)**	**Cost R/ton**	**Number of Client Records**	**Lost Clients Number**	**Lost Business (ton/month)**
Carel Pollard	1500	5924	5493	431	5.14	37	10	97.0
Frans Bonthuys	350	764	0	764	41.82	43	24	25.9
Frik Groenewald	200	980	0	980	28.07	74	22	91.2
Fouche / Tegnies (Inhuis)	2000	10227	9619	608	3.76	50	11	213.7
Henk Kemp	450	803	0	803	45.09	47	14	145.9
Jan Schreuder	200	368	0	368	77.96	31	9	16.5
Vakant (Hannes, Pieter)	200	82	0	82	0.00	53	30	45.2
Johnny Esterhuizen	350	592	0	592	36.81	72	21	96.8
Kobus Prinsloo	350	528	0	528	64.86	65	23	72.4
Vakant (Arno Engelbrecht)	0	107	0	107	0.00	15	1	3.0
Albert van Rensburg					2.01			
Kobie Kruger					0.45			
Johan Lotter					1.65			
	5,600	**20,375.50**	**15,111**	**5,264.01**	**16.02**	**487**	**165**	**807.58**

Balanced Feed Manufacturers Market Share



ANIMAL FEED VOLUMES BY COMPANY
As at March 2005

Annual Tons - National: 4 902 400 tons



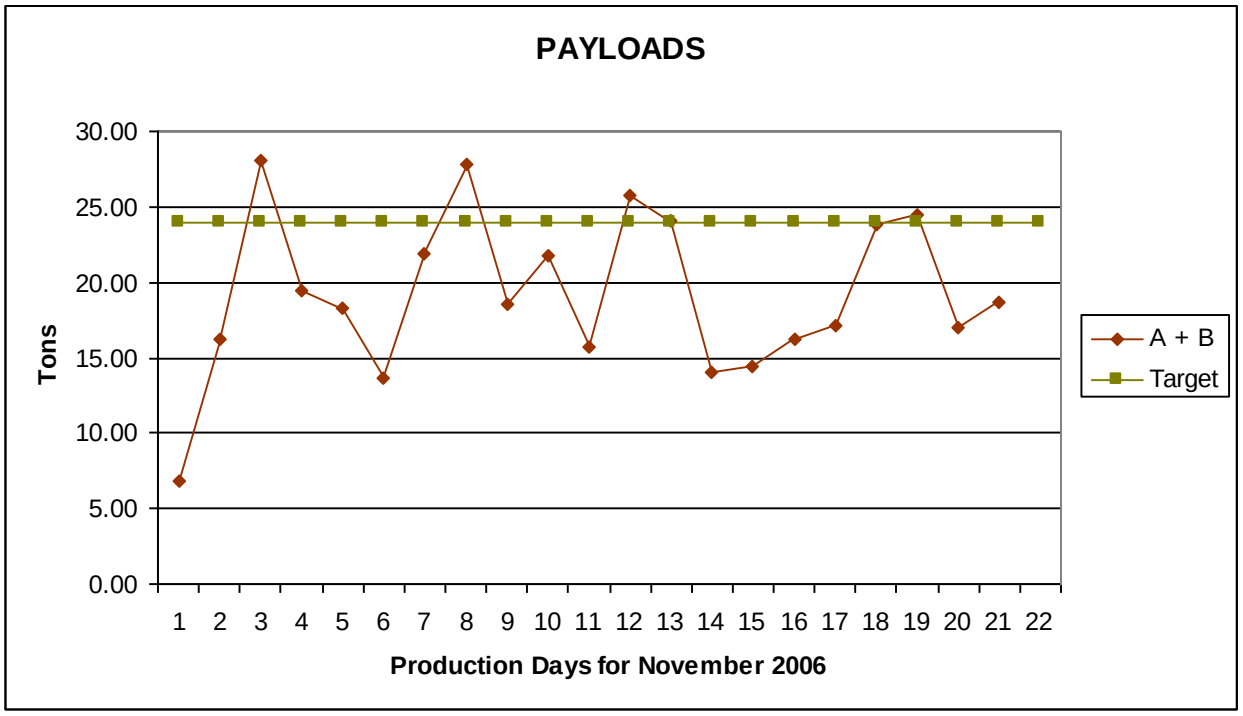
17. ANALYSIS

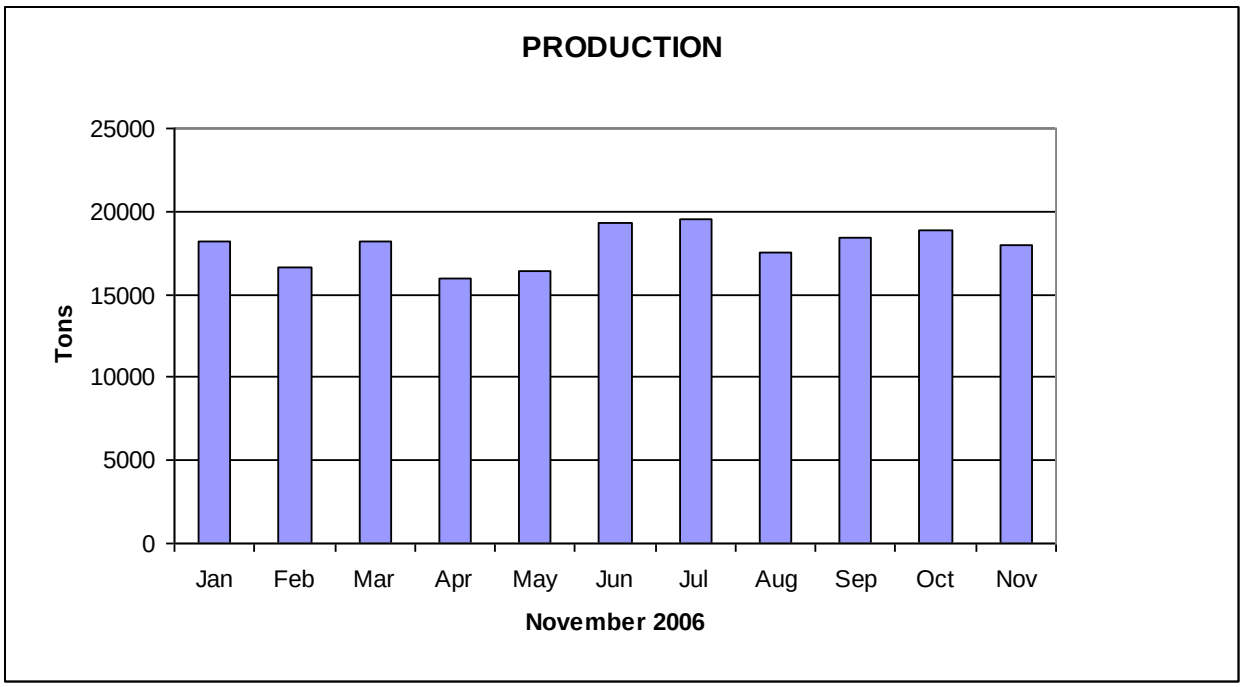
Operations in the Viljoenskroon's plant are facing several challenges with regard to the expected plant performance, quality of product and service levels. The management system has been developed over the past few months to provide relevant data on which the plant can be measured. The data and trends are clearly showing various improvements however new bottlenecks and shortfalls are identified. Specific focus is aimed at the delays and standing times in the plant. These result from pellet to meal ratio as well as inefficiencies in shift scheduling and continuity between shifts.

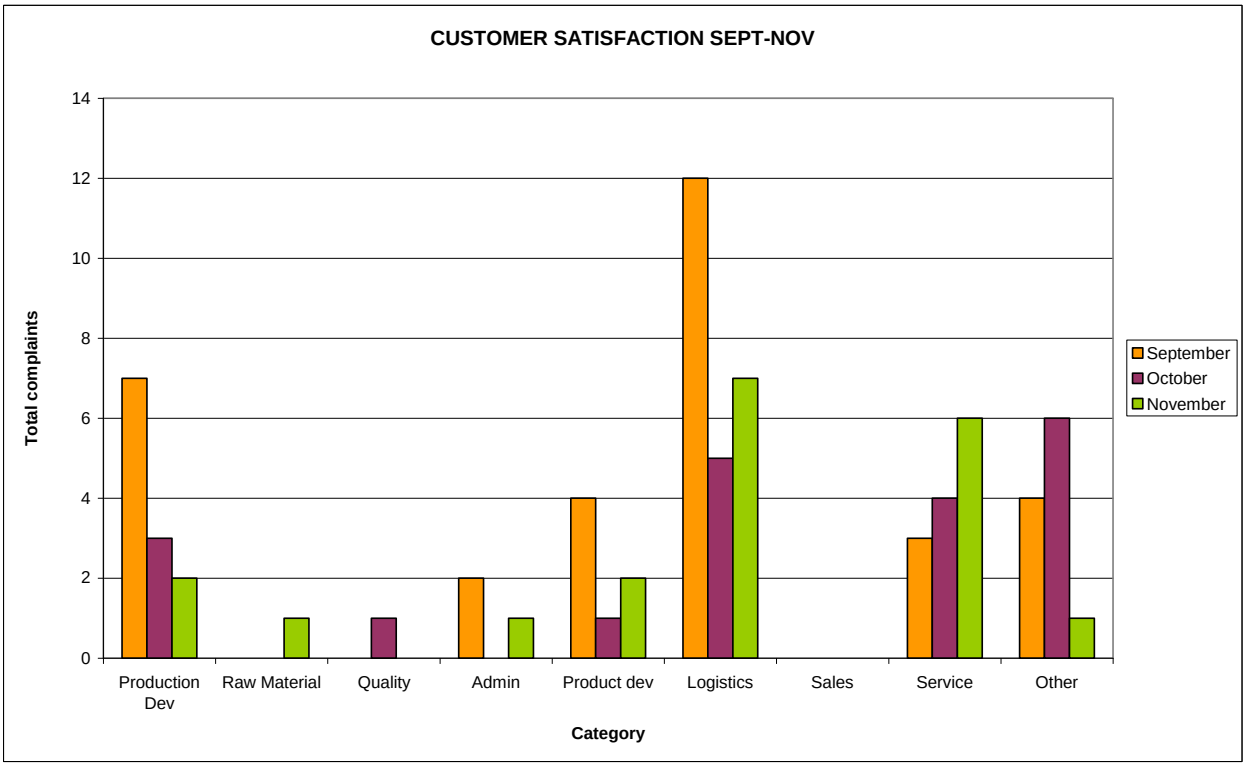
Production costs such as labour utilization, overtime and call-outs require attention and the respective costs are being managed down to acceptable levels.

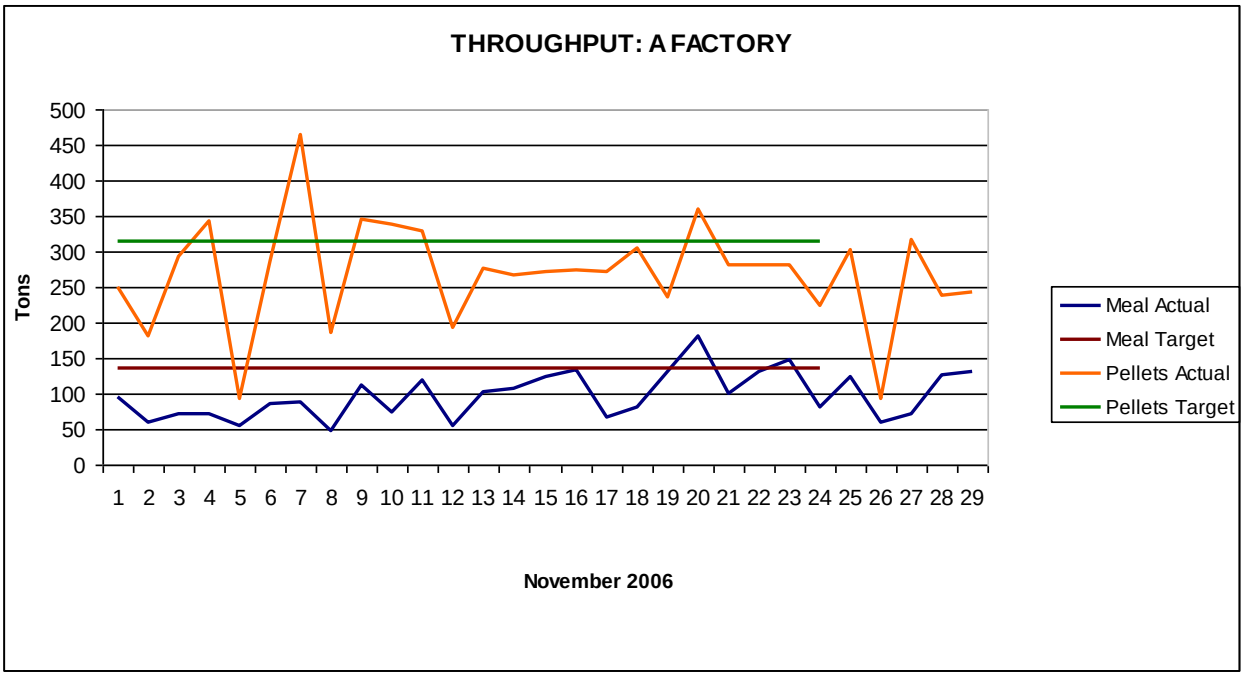
Quality of pellets in the B plant is higher than the quality of A plant pellets. The difference lies in the durability achieved through the two plants. Although the B plant is equiped with better conditioners on the CPM machines, maximum gelatinization in the LaMech and Buhler conditioners are problematic. Various improvements have been implemented to minimize the poor conditioning designs.

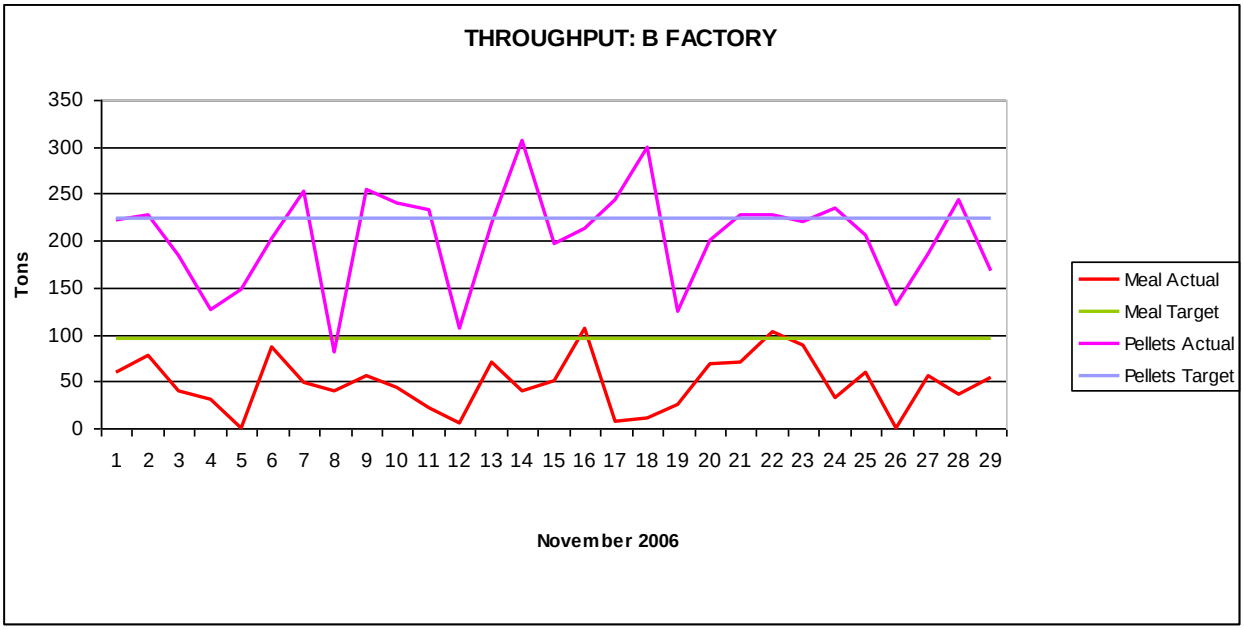
During this time housekeeping, cleaning, sanitation and pest control programs are implemented. Service levels and customer feedback are monitored and more issues are surfacing that require attention. The total awareness of client service lacks commitment and programs are put in place to improve the current levels of service.

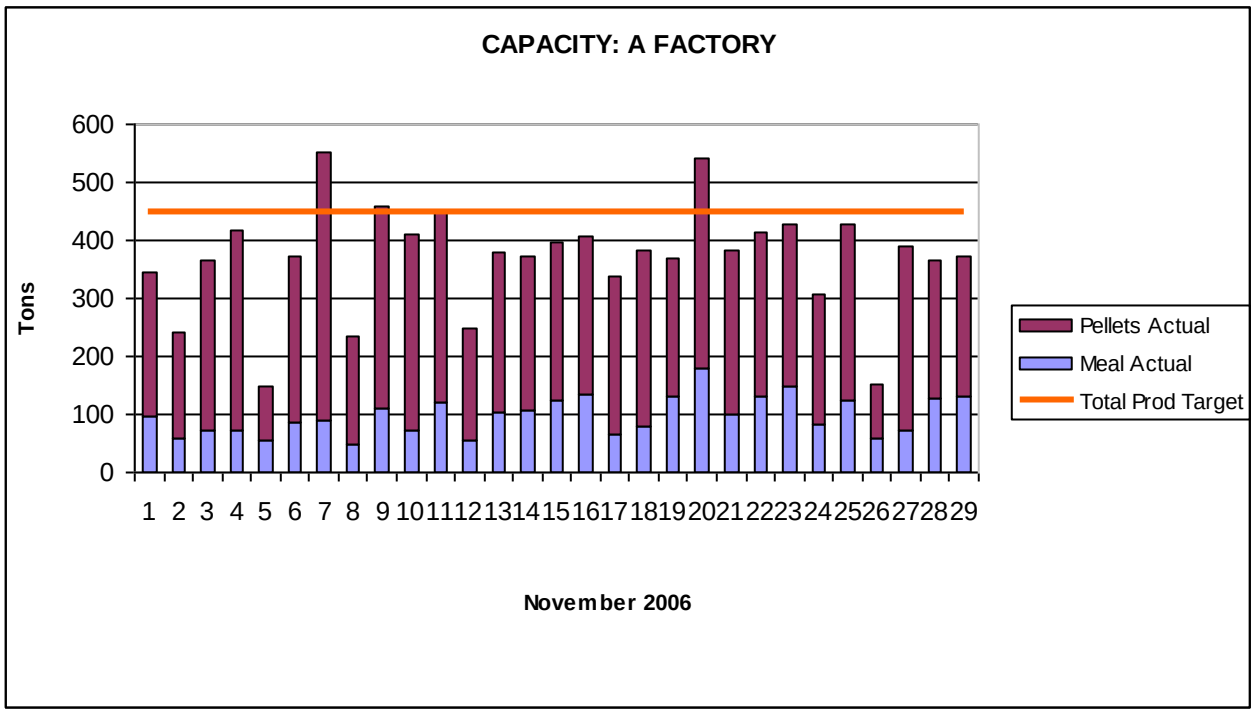


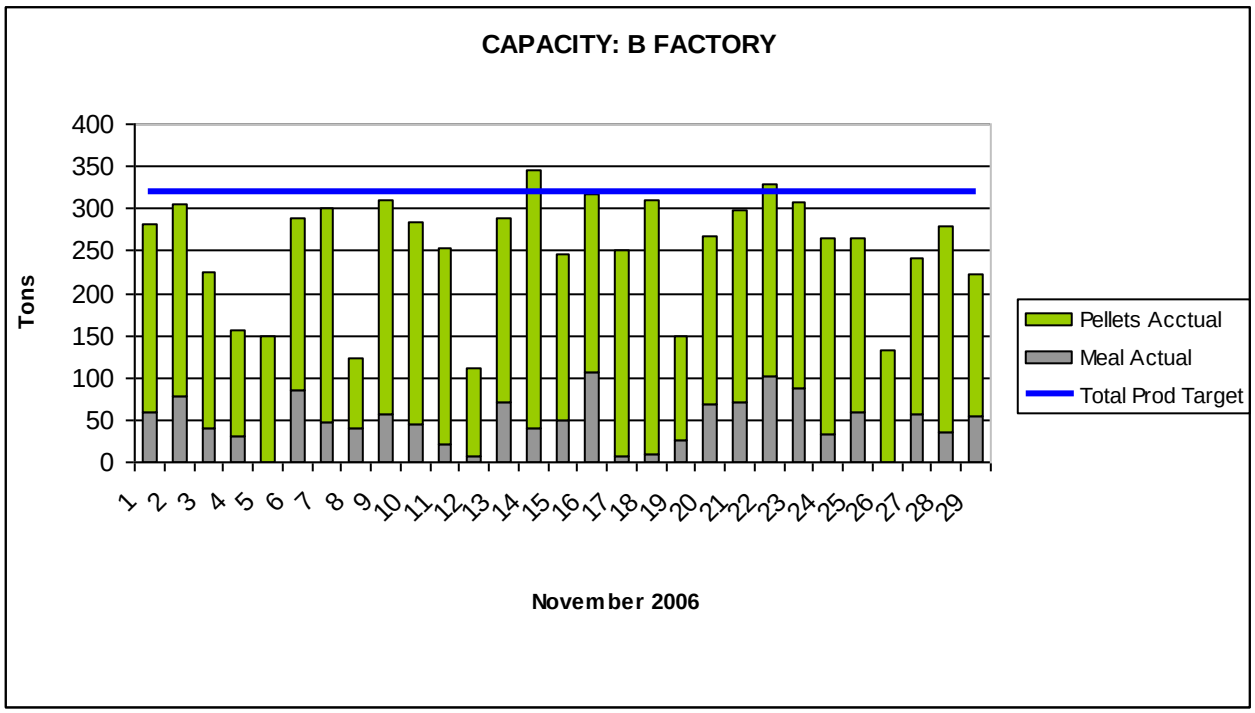

PRODUCTION
25000
20000
15000
10000
5000
0
Tons
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
November 2006

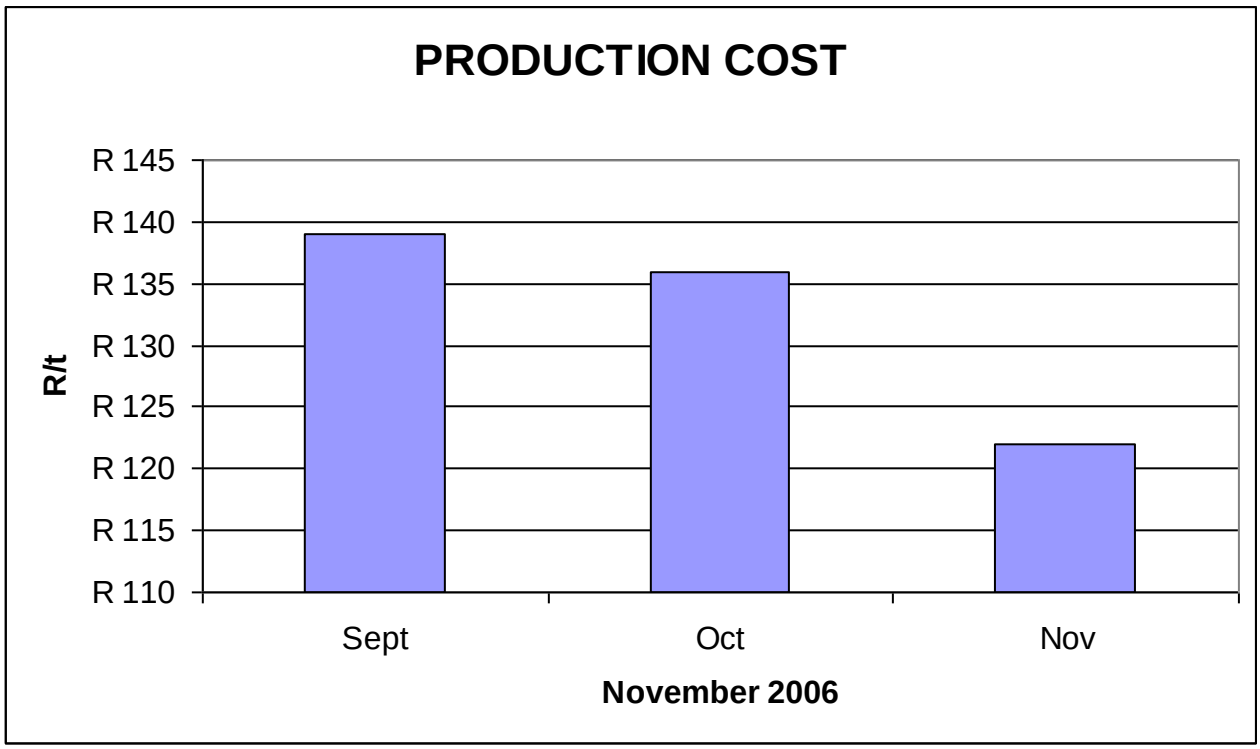

CUSTOMER SATISFACTION SEPT-NOV
14
12
10
8
6
4
2
0
Total complaints
Production Dev
Raw Material
Quality
Admin
Product dev
Logistics
Sales
Service
Other
Category
September
October
November

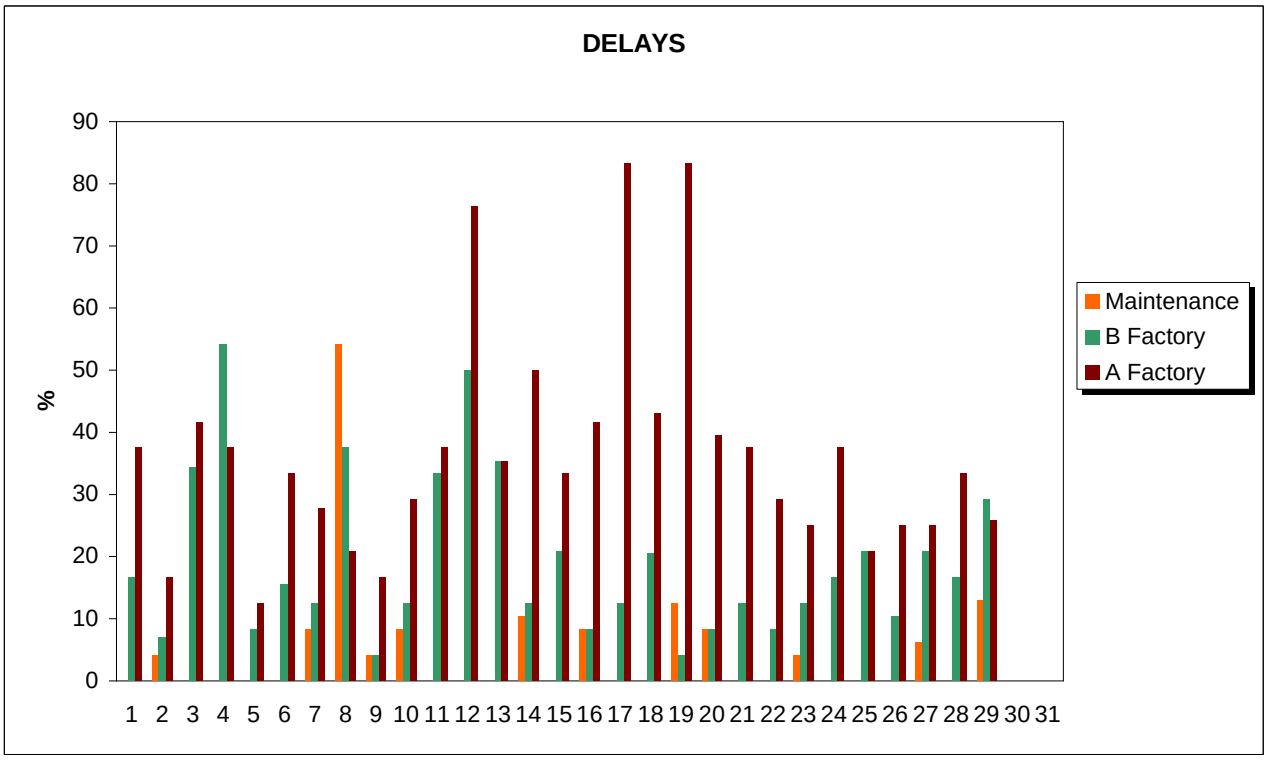

THROUGHPUT: A FACTORY
Tons
500
450
400
350
300
250
200
150
100
50
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
November 2006
Meal Actual
Meal Target
Pellets Actual
Pellets Target

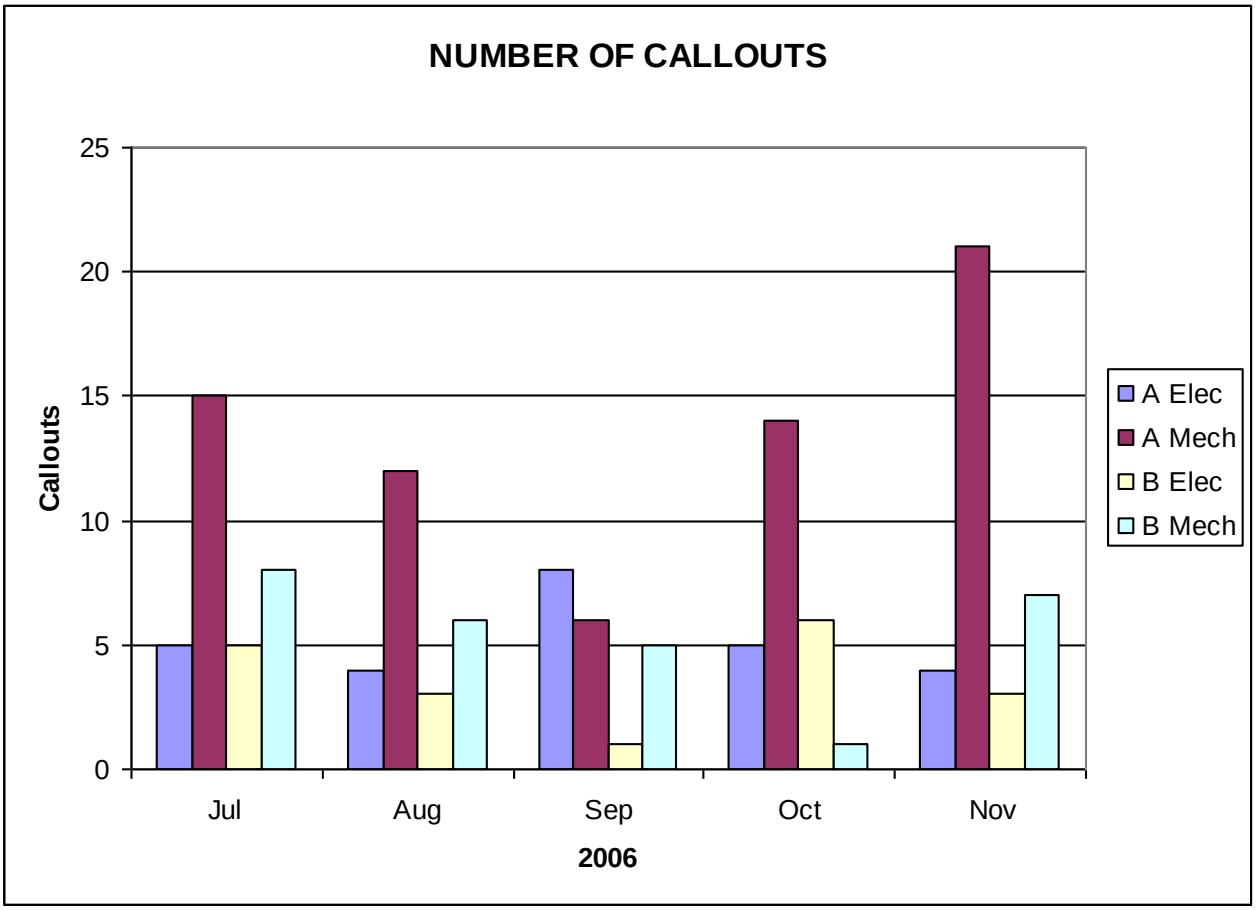

THROUGHPUT: B FACTORY
Tons
350
300
250
200
150
100
50
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
November 2006
Meal Actual
Meal Target
Pellets Actual
Pellets Target

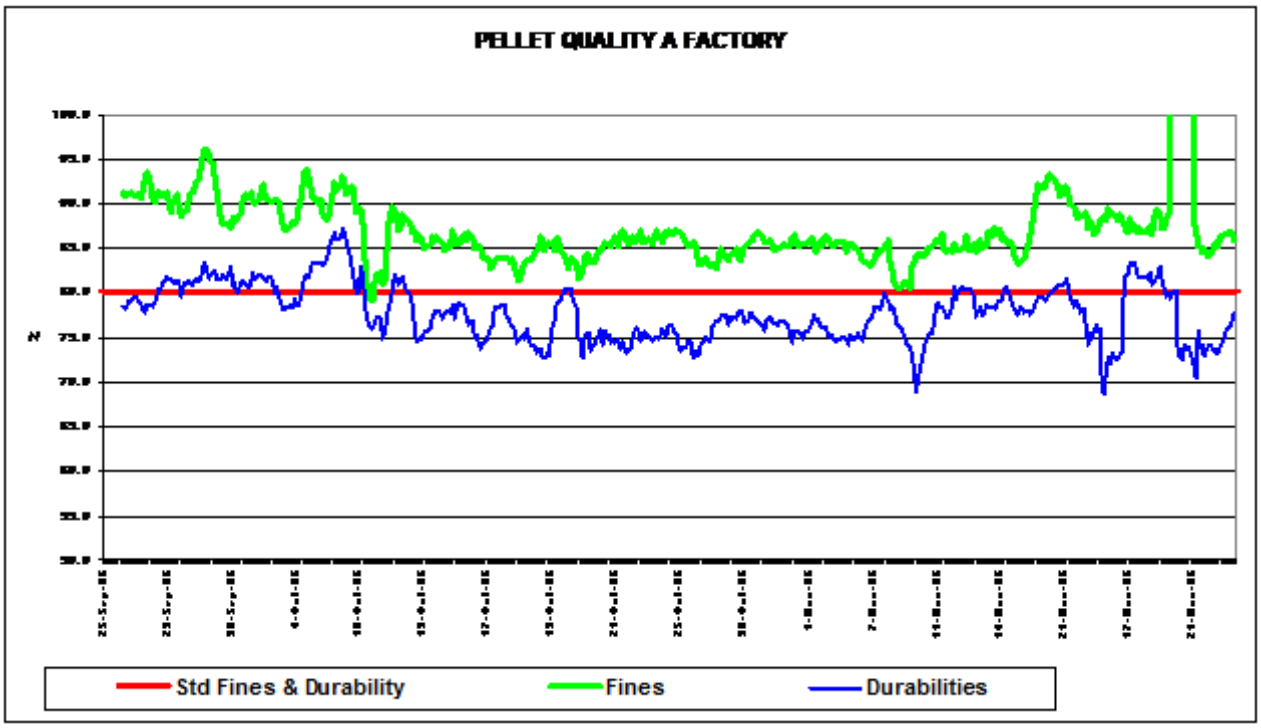

CAPACITY: A FACTORY
Tons
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
November 2006
Pellets Actual
Meal Actual
Total Prod Target

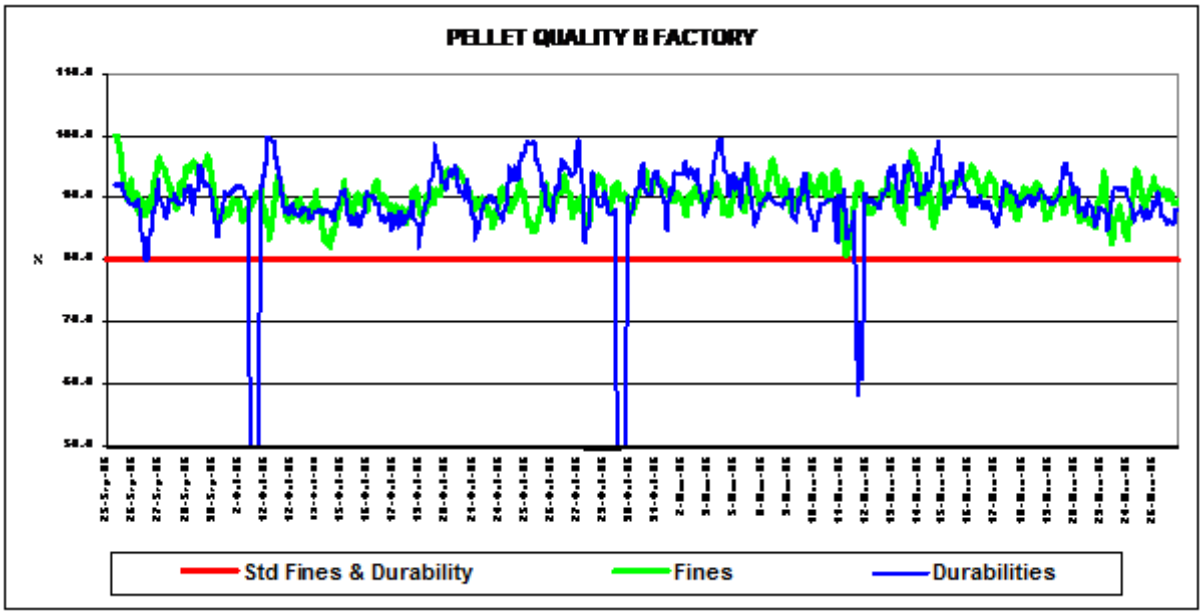

CAPACITY: B FACTORY
Tons
400
350
300
250
200
150
100
50
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
November 2006
Pellets Acctual
Meal Actual
Total Prod Target

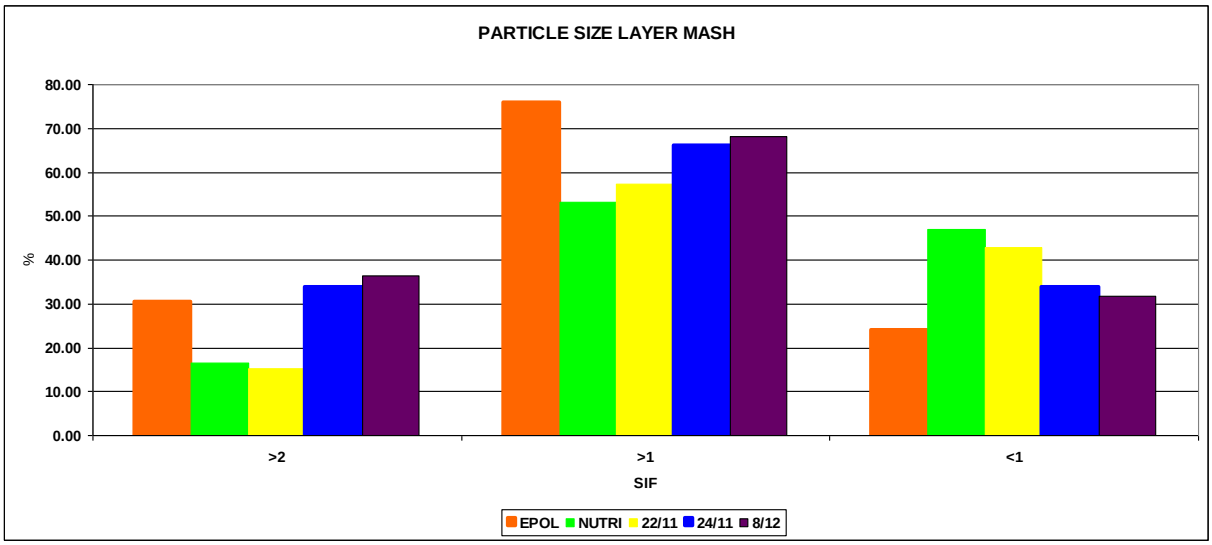

PRODUCTION COST
R 145
R 140
R 135
R 130
R 125
R 120
R 115
R 110
R/t
Sept
Oct
Nov
November 2006


DELAYS
90
80
70
60
50
40
30
20
10
0
%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Maintenance
B Factory
A Factory


NUMBER OF CALLOUTS
Callouts
25
20
15
10
5
0
Jul
Aug
Sep
Oct
Nov
2006
A Elec
A Mech
B Elec
B Mech


PELLET QUALITY A FACTORY
Std Fines & Durability
Fines
Durabilities


PELLET QUALITY B FACTORY
%
Std Fines & Durability
Fines
Durabilities


PARTICLE SIZE LAYER MASH
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
%
>2
>1
<1
SIF
EPOL
NUTRI
22/11
24/11
8/12

18. CONCLUSION

Senwesko feedmill in Viljoenskroon has the potential in its current state including an initial R6,4 mil investment, to produce 40 000 tons of animal feed in the next year. The implementation of a strategy to focus on the creation of order, establishing a structure, stimulating communication and to lift the level of motivation has proven to be effective as demonstrated in the subsequent results in the improvement of costs, efficiencies and quality. There are possible variations to the volumes and market dynamics however the marketing strategy and future expansion of the company are flexible in the strategy to absorb these dynamics. The plant is currently experiencing various changes to the processes and structure. The changes have positive impact on the quality of the product, the market feedback, volumes and ultimately on the cost per ton. The single most important aspect to monitor in this industry is the cost per ton. Various initiatives are investigated and these are all related back to the impact on the cost per ton for the company.

During the initial improvements the level of motivation and spirit to achieve are growing amongst the employees. Previous volumes of 450tons are now constantly replaced by 720 ton achievements. Obviously this has a major impact on the cost per ton. The market strategy is active and for a first time the plant is pushing the marketing team for more sales. The product is well established in the market and new ground in gained through pro-active marketing and confidence in supply and quality product.

This study illustrated how the operational efficiencies were improved in the Viljoenskroon Feed Mill. This was achieved by defining the starting points as described in the financial statements, plant volumes and quality draw backs. The combined efficiency improvements in the various disciplines of the business through a turn-around strategy were used in a defined structure and orchestrated to achieve the results in market, financial and efficiency benefits.

The turn-around strategy combined with an initial investment of R6,4 to achieve new markets and increased production are illustrated in the financials as a beneficial return on investment by the shareholders. The confidence, research and technical ability demonstrated in the business plan and business strategy, paves the way for the shareholders to consider future developments and investments with confidence.

19. LETTER FROM MANAGING DIRECTOR

P O Box 52
VILJOENSKROON
9520

Tel: **056-344-2200**
Faks: **056-343-2272**

31 October 2006

BUSINESES PLAN AND OPTIMIZATION PROJECTS

Your presentation on the business plan and efficiency model was very informative and displays a very good understanding of the complexities of our industry. The request for the initial capital was approved by the Shareholders, as described in the business plan.

The model was presented to me as the Managing Director of the Company. It was extremely well presented with a lot of attention to detail and many very relevant solutions to optimize our profits.

As we are a National Group and the fact that a substantial proportion of the volume must be produced for the national developments, consideration to accommodate these volumes had to be taken into account and adjustments made to the model. Market forces will also influence the workings of the model and Mr. Badenhorst will introduce these elements into the model.

We look forward to concentrating all our thoughts to making sure this business plan and operational issues will benefit our company in the years to come.

Regards

C J Van Niekerk
MANAGING DIRECTOR

20. REFERENCES

References, and list of sources:

- http://www.cargill.com/index.htm
- http://www.changedesigns.co.za/casestudy_Paddy_Norton.htm
- http://www.distell.co.za/investor/ar2004/performance.html
- www.epol.co.za
- SP Robbins, A Odendaal, G Roodt. (2003). Organizational behaviour. Pearson Education South Africa
- Dick Ziggers(2006), Feed Tech, Rex Bierlaagh, Netherlands.
- Stanislav Karapetrovic and Walter (2004),The system's view for clarification of quality vocabulary, Willborn University of Manitoba, Winnipeg, Manitoba, Canada
- .Maj, Rijeka, Croatia Alojzij Sluga(2003), A quality management model based on the "deep quality concept"
- Timothy L. Keiningham (2003), Does customer satisfaction lead to profitability? The mediating role of share-of-wallet
- Paul R. Jackson (2004), Employee commitment to quality Its conceptualisation and measurement
- Joseph A. Williams (2003) The Impact of Motivating Factors on Implementation of ISO 9001: 2000 Registration Process
- Stanislav Karapetrovic, Anne Wilcock, Guelph (2004), Is ISO 9004 a path to business excellence?
- Roger Williams, Ton van der Wiele and Jos van Iwaarden Erasmus, Rolf Visser(2004), TQM: why it will again become a top management issue
- M.A. Berawi(2003), Quality and reliability corner Quality revolution: leading the innovation and competitive advantages
- Amrik S. Sohal(2002), Transitioning from total quality management to total innovation
- David R. Bamford and Richard W. Greatbanks,(2003) The use of quality management tools and techniques: a study of application in everyday situations
- Thanh Nguyen, Anne Wilcock and May Aung,(2004) Canada Food safety and quality systems in Canada An exploratory study
- Standards South Africa (2005) SANS 10330:200X, Draft Edition, Standards South Africa, Pretoria, 2005.
- Standards South Africa (2005) ISO 22000:2005, 1ST Edition, ISO Geneva Switzerland.

- Standards South Africa (2005) SABS 048, 3rd Edition, South African Bureau of Standards, Pretoria
- Standards South Africa (2003) SANS 15161:2003, 1st Edition, Standards South Africa, Pretoria, 2005.