Pat O'Rourke Illinois State University Agribusiness Management Program Department of Agriculture Illinois State University Campus Box 5020 Normal, IL 61790-5020 309-438-3492 Fax 309-438-5653 E-mail: porourke@ilstu.edu Case Studies and other Simulations

Gross Margin-Profit Worksheet

This worksheet contains a template that will assist you to bring together your pricing decisions and demand estimates to calculate estimated total receipts, gross margin and gross profits for the coming six month period.

There are two columns of numbers, in red, where you may enter data.

Column A will contain your decisions on prices and charges for the period in question. When you initially open the spreadsheet, it will contain in those cells the "average" forecasted prices and charges for that period.

Column D will contain your decisions on quantities you expect to sell for each product and service. When you initially open the spreadsheet, it will contain in those cells the "average" forecasted sales per dealership for that period.

You should replace those prices and charges in Column A with your own price and charge decisions for the period and replace the quantities in Column D with your own estimated sales for the period. Remember, the market's demand for your dealership's products and services can, in most circumstances, vary within the ranges shown in the "Sales Forecast for the Period". The amount of increase or decrease from the average expected demand will be impacted by your and your competitors' decisions on prices, service charges, promotion expenditures and distribution, training and credit policies.

The most challenging work here will be the estimates of service quantities. Some will take some patience and attention to detail in developing good forecasts --- but, that is no different from a real dealership. You might consider using your dealerships actual service sales from the last similar period (Spring – to – Spring or Fall – to – Fall) as a starting point and make adjustments according to any changes in your and your competitors' pricing, etc.

The rest of the cells on the spreadsheet are protected and the calculations are automatic.

PROFITABILITY LINKAGE MODEL

This worksheet contains a template that will assist you in recording, tracking and understanding the relationships among the revenues and expenses shown on your Profit and Loss Statements and the assets, liabilities and equities shown on your Balance Sheets. Plus, it allows you to compare and track changes in those values and their contribution to your dealerships financial health over a number of overlapping 12 month periods.

The spreadsheet is designed to accept your data entries, all the numbers in red, for revenues and expenses from the "LAST 12 MONTHS" column on your Profit and Loss Statement and your data entries of asset and liability values from your Balance Sheet. These data entries are then automatically used, by formula, to estimate the Profit Margin %, Asset Turns, Return on Total Assets %, Financial Leverage and, finally the Return on Owners Equity %.

The first two columns contain the data from the "LAST SPRING" and "LAST FALL" financial statements in the ProStar manual.

You may use any column to enter budgeted estimates of a future period to see how those expected results impact Profit Margin %, Asset Turns, Return on Total Assets %, Financial Leverage and, finally the Return on Owners Equity %. In using the spreadsheet to evaluate decisions and anticipated actions for a future period you might consider using your dealerships' financial statements from the last similar period (Spring – to – Spring or Fall – to – Fall) as a starting point and make adjustments according to any changes you wish to evaluate.

Or, you may make one(several) change(s) in the most recent ProStar results to answer "What if?" questions concerning the impact of some change in decisions on the financial health of the dealership.

The rest of the cells on the spreadsheet are protected and the calculations are automatic.

CASH BUDGET WORKSHEET MODEL

Cash Management

The next two pages contain forms to assist the management team in efficiently managing cash flows. Some obligations are realized on the first day of each period, such as: pay-back of any carried-over [beginning] emergency loans, equipment and storage sales and purchases, payables from the previous period, previous current liabilities due, pre-pay on the bank debt and any new investments made. A close study of the cash budgeting form will make clear other sources and uses of cash. Managing cash flow successfully will prevent emergency borrowing which is more expensive (20% per annum) than planned borrowing (10% per annum), recalling investments (7% per annum) or issuing new stock (10% per annum, when there are after tax profits.)

Planned borrowing from	5.0%	
the bank		
Emergency borrowing	10.0%	
from the bank		
Earnings on Investments	3.5%	
Dividend policy	5.0%	
Dividenti policy	3.070	

Table 31 Interest and Dividend Rates per Period

BANK LOANS

On the balance sheet for each period, 5 percent of the total ordinary bank debt is listed as Mortgage Payable under CURRENT LIABILITIES. This amount is due to the bank on the first day of the next period. The bank will make emergency loans to your dealership if needed. Any Emergency Debt balance at the end of a period must be repaid on the first day of the next period.

INVESTMENTS

Your dealership may invest excess cash in liquid investment accounts bearing an annual return of 7 percent -- 3.5% per half-year. Investments may be recalled in whole or in part if needed elsewhere in the dealership. Investments made and called occur on the first day of each period. If your dealership needs cash, all investments are automatically called before emergency loans are taken out.

COMMON STOCK

The small group of owners has 250,000 shares of common stock, valued at \$250,000, representing their original investment in the dealership. The dealership's policy has been to pay a 5 percent dividend on that stock value each half-year in which positive NET INCOME is available to do so.

The owners have told you that they may be willing to increase their investment in the dealership if you recommend doing so. On the decision form, this is represented by decision #55: <u>Issue</u> <u>Common Stock</u>. Newly issued common stock funds are available on the first day of the period in which the stock is issued.

CASH BUDGET WORKSHEET

The Cash Budget is used to help estimate cash needs for upcoming periods. This will allow your management team to readjust purchases, pricing, borrowing, etc to prevent emergency borrowing. There are two critical times to balance cash sources with cash uses -- the first day of the half-year period and the last day of the half-year period. This worksheet should help do that.

FORECASTING CASH REQUIREMENTS

The **Cash Budget Worksheet** will help players assure that enough cash is available so that emergency loans do not have to be made. Remember, emergency loans are made at an annual interest rate of 20% while planned loans cost only 10% per annum.

The entries in the firts **Cash Budget Worksheet**, in the spreadsheet, represent the entries that would have been made by the previous management team when planning for and making decisions for the "LAST FALL" half-year period shown in this player's manual. In other words, the **Cash Budget Worksheet** was used to estimate cash needs and plan for adequate cash for the "LAST FALL" half-year period. Most of the data needed to do that was found on the Balance Sheet from the end of the previous period, "LAST SPRING" in this case, and from the player's decisions for the coming half-year period, "LAST FALL" in this case. In the following table the letters in the left hand column indicate the source of the data for each entry on the **Cash Budget Worksheet**. The letters stand for the following

Balance Sheet Current Assets
Balance Sheet Current Liabilities
Decisions for next half-year period
Wholesale Prices X Decision on
Quantity Ordered
Estimates for the next half-year period
Calculate Interest on Long-term
Liability from Balance Sheet
Calculated Interest on Emergency
Loan Carried over from First Day
Estimate Income Tax for Next Period
Estimate Dividends for the Next
Period

Key to Cash Budget Worksheet

Cash is needed on the first day of any half-year period for paying off any emergency loans, purchasing equipment or storage facilities, paying off any Accounts Payable, paying the Mortgage Payable, Pre-paying on the Mortgage and Making Investments. Cash is available on the first day of any half-year period from the Beginning Cash account, one-half of Beginning Accounts Receivable, any Equipment Sales, New Loans, New Issued Stock and Called Investments.

Consider the example that follows. From "LAST SPRINGS" Balance Sheet enter Beginning Cash of \$64,540 one half of Accounts Receivable and any outstanding Emergency Loan. The First Day also requires "LAST FALLS" decision form to get the required data for equipment purchases, equipment sales and storage purchases. Look again at "LAST SPRINGS" balance sheet for beginning payables and beginning mortgage payable. Return to "LAST FALLS" decision form for new bank loan, pre-paid bank loan, new issued common stock, call investments, and make investment. Add these data in the "Source" and/or "Use" columns. Now subtract the "USE" total from the "SOURCE" total to get the First Day cash balance. The cash balance should be positive. If it is not, you should change decisions for the next period until it is positive so as to avoid an emergency loan. Ways to increase the amount of cash available on the first day of any period are to

- o Reduce equipment or storage purchases
- o Increase equipment sales
- o Increase new bank loans
- o Decrease pre-paying bank loans
- o Increase issuing of common stock
- o Call investments if any are available

Ways to use cash if it is felt that too much is languishing in the cash account on the first day of any period are to:

- o Increase equipment or storage purchases
- o Decrease equipment sales
- o Decrease new bank loans
- o Increase pre-paying bank loans
- o Decrease issuing of common stock
- o Make investments if any are available

Your decisions must also be tempered by considerations other than just the cash balance in the business. Managing cash well is important but only one aspect of the overall objective of optimizing the return on owners' equity over time.

Last Day cash balance requires the following data. Carry forward the ending first day cash balance from the "First Day" calculations. From "LAST SPRINGS" balance sheet enter one half of Accounts Receivable. All fertilizer and chemical products ordered for the next period are paid for on the last day of that period. To find the cash needed for product purchases, multiply the "Wholesale Price" for that period by the quantity ordered. The Wholesale Prices are from the Retail Price Guide for the next period. Then estimate the Cash Receipts, Other Income, Cash Operating Expenses and Ending Accounts Payable by looking back at the most recent similar half-year period Profit and Loss Statement and Balance Sheet. Using the same logic, estimate the Income Taxes and Dividends likely for the next period. Then subtract the "USE" total from the "SOURCE" total to get the Estimated Last Day cash balance.

The cash balance should be positive. If it is not, you should change decisions for the next period until it is positive so as to avoid an emergency loan. Ways to increase the amount of cash available on the last day of any period are to:

- o Reduce equipment or storage purchases
- o Increase equipment sales
- o Increase new bank loans

- o Decrease pre-paying bank loans
- o Increase issuing of common stock
- o Call investments if any are available
- o Reduce Product Orders
- o Change to Lower Numbered Credit Policy

Ways to use cash if it is felt that too much is languishing in the cash account on the last day of any period are to:

- o Increase equipment or storage purchases
- o Decrease equipment sales
- o Decrease new bank loans
- o Increase pre-paying bank loans
- o Decrease issuing of common stock
- o Make investments if any are available
- o Increase Product Orders
- o Change to Higher Numbered Credit Policy

Figure 3. CASH BUDGET WORKSHEET (<u>example</u> from end of "Last Spring" forecasting cash needs for "Last Fall")

				/
Where to get the	ESTIMATE OF		SOURCE	USE
Data	FIRST DAY CASH			
BS-CA	Beginning Cash		64,540	
BS-CA	1/2 Beginning Accounts Rec		295,198	
BS-CL	Carry-over Emergency Loan			0
D	Equip Purchases			0
D	Equip Sales		0	
D	Storage Purchases			0
BS-CL	Beginning Payables			99,284
D	New Loan		0	
D	Pre-Pay Loan			0
BS-CL	Beginning Loan Due			38,000
D	New Issue Stock		0	
D	Call Investments		0	
D	Make Investment			0
	Estimated First Day Cash Totals		359,738	137,284
	Ending First Day Cash Balance	222,454		

Equipment Purchases/Sales for FIRST DAY CASH NEEDS

	Number	Purchase	SOURCE	USE
Equip Sales/Purchases	+ or -	Price	(Sales)	(Purchases)
Pickup	0		Ν	
Floater	0		\mathbf{N}	
VRT	0			
Nurse	0			
Chem Sprayer	0			
NH3 Applic	0			
NH3 Nurse	0			
Dry Cart	0			
Sub-TOTAL			0	0
Chem Store	0			
Dry Store	0			
Liq Store	0			
Anhyd Store	0			
Sub-TOTAL			0	0
GRAND TOTALS			0	0

Figure 3. (Continued) CASH BUDGET WORKSHEET (<u>example</u> from end of "Last Spring" forecasting cash needs for "Last Fall")

Where to get the	ESTIMATE OF		SOURCE	USE
Data	LAST DAY CASH			
	Ending First Day Cash Balance		222,454	
BS-CA	1/2 Beginning Accounts Rec		295,198	
WP times D	PRODUCT PURCHASES			1,136,765
EST	CASH Total Receipts		1,372,362	
EST	Other Income		175	
EST	Tot Oper Exp – Depreciation			512,623
EST	Ending Payables		76,894	
CALC-BS	Long-term Loan Int Expense			36,100
EST-CALC	Emergency Loan Int Expense (for First Day Emerg. Loan)			
P&L-EST	Tax			0
P&L-EST	DIV			0
	Estimated Last Day Cash Totals		1,967,083	1,685,488
	Ending Last Day Cash Balance	281,595		

Product Purchases for LAST DAY CASH NEEDS

Product Purchases	Number Ordered	Wholesale Price	TOTAL \$
ST. GOODS	2600	\$153	
BULK BLENDS	XXXXX	XXXXX	XXXXX
UREA	0		
ANHYDROUS	1880	\$237	
28% LIQUID NITROGEN	0		
LIME	2000	\$55	
N-SERVE (Acre)	6300	\$4.40	
CHEM Packaged (Acre)	1000	\$18.25	
CHEM (Acre)	6300	\$15.25	
TOTAL			\$1,095,405

NOTE: "Late Orders" cost 10 percent more [wholesale price X 1.10] "Late Orders" in the LAST FALL Period add an additional\$41,360 to Product Purchases. See the "Sales and Inventory Report in Table 21A.	\$41,360
TOTAL including Late Order expenses.	\$ 1,136,765

CASH BUDGET WORKSHEET

<u>Review the "Cash Budget Worksheet Model" paper.</u> Enter the sources and uses of cash where appropriate ---- in the red numbered cells.

Remaining cells will be calculated

If the "Estimated Ending Last Day Cash Balance" is negative, take corrective action until positive.

ESTIMATE OF FIRST DAY CASH	Where to get the Data	SOURCE	USE
Beginning Cash	BS-CA	\$0	
1/2 Beginning Accounts Rec	BS-CA	\$0	
Carry-over Emergency Loan	BS-CL		\$0
Equip Purchases	D		\$0
Equip Sales	D	\$0	
Storage Purchases	D		\$0
Beginning Payables	BS-CL		\$0
New Loan	D	\$0	
Pre-Pay Loan	D		\$0
Beginning Loan Due	BS-CL		\$0
New Issue Stock	D	\$0	
Call Investments	D	\$0	
Make Investment	D		\$0
Estimated First Day Cash Totals		\$0	\$0
Ending First Day Cash Balance			

ESTIMATE OF LAST DAY CASH	Where to get the Data	SOURCE	USE
Ending First Day Cash Balance	BS-CA	\$0	
1/2 Beginning Accounts Rec	BS-CA	\$0	
PRODUCT PURCHASES	WP times D		\$
CASH Total Receipts	EST	\$0	
Other Income	EST	\$0	
Tot Oper Exp - Depreciation	EST		\$
Ending Payables	EST	\$0	
Long-term Loan Int Expense	CALC-BS		\$
Emergency Loan Int Expense (for First Day Emerg. Loan)	EST-CALC		
Tax	P&L-EST		\$
DIV	P&L-EST		8
Estimated Last Day Cash Totals		\$0	S
Estimated Ending Last Day Cash Balanc	e \$0		

Equipment. Storage Purchase/Sales for FIRST DAY CASH NEEDS

Equip Sales/Purchases	Number + or _	Purchase Price	SOURCE	USE
Pickup	0	\$19,000		\$0
Floater	0	\$145,000		\$0
VRT	0	\$210,000		\$0
Nurse	0	\$30,000		\$0
Chem Sprayer	0	\$37,000		\$0
NH3 Applic	0	\$13,000		\$0
NH3 Nurse	0	\$3,800		\$0
Dry Cart	0	\$6,500		\$0
Chem Store	0	\$2		\$0
Dry Store	0	\$50		\$0
Liq Store	0	\$30		\$0
Anhyd Store	0	\$700		\$0
τοτα				\$0

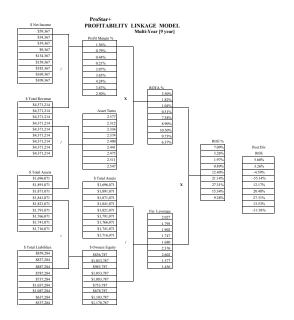
Product Purchases for LAST DAY CASH NEEDS

Product Purchases	Number Ordered	Wholesale Price	TOTAL \$
ST. GOODS	0	\$0.00	\$0
BULK BLENDS		:::::::::::::::::::::::::::::::::::::::	
UREA	0	\$0.00	\$0
ANHYDROUS	0	\$0.00	\$0
LIQUID NITROGEN 28%	0	\$0.00	\$0
LIME	0	\$0.00	\$0
N-SERVE (Acre)	0	\$0.00	\$0
CHEM Packaged (Acre)	0	\$0.00	\$0
CHEM (Acre)	0	\$0.00	\$0
TO	ΓAL		\$0

NOTE: "Late Orders" cost 10 percent more [wholesale price X 1.10] "Late Orders" in the LAST FALL Period add an additional\$41,360	
to Product Purchases.	
See the "Sales and Inventory Report in Table 21A.	\$0

	12 MONTH PR	MONTH PROFIT & LOSS TOTALS AND ENDING BALANCE SHEET AMOUNTS										
ProStar+	LAST SPRING	LAST FALL	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7			
\$ Product Sales	\$3,879,865	\$3,879,865	\$3,879,865	\$3.879.865	\$3.879.865	\$3,879,865	\$3,879,865	\$3.879.865	\$3.879.865			
S Cost of Goods	\$2,898,573	\$2,898,573	\$2,898,573	\$2,898,573	\$2,898,573	\$2,898,573	\$2,898,573	\$2,898,573	\$2,898,573			
S Service Income	\$491,349	\$491.349	\$491,349	\$491,349	\$491.349	\$491,349	\$491,349	\$491,349	\$491,349			
S Total Revenue	\$4,371,214	\$4,371,214	\$4,371,214	\$4,371,214	\$4,371,214	\$4,371,214	\$4,371,214	\$4,371,214	\$4,371,214			
\$ Gross Margin	\$981,292	\$981.292	\$981.292	\$981.292	\$981,292	\$981,292	\$981.292	\$981,292	\$981.292			
\$ Gross Profit	\$1,472,641	\$1,472,641	\$1,472,641	\$1,472,641	\$1,472,641	\$1,472,641	\$1,472,641	\$1,472,641	\$1,472,641			
Operating Expenses:												
Management Team	\$150,000	\$175,000	\$190,000	\$200,000	\$75,000	\$50,000	\$24,000	\$40,000	\$100,000			
Full time Lab	\$216,000	\$216,000	\$216,000	\$216,000	\$216,000	\$216,000	\$216,000	\$216,000	\$216,000			
Part time Lab	\$121,500	\$121,500	\$121,500	\$121,500	\$121,500	\$121,500	\$121,500	\$121,500	\$121,500			
Over time Lab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
Tax, Ins & Lic	\$45,680	\$45,680	\$45,680	\$45,680	\$45,680	\$45,680	\$45,680	\$45,680	\$45,680			
Depreciation	\$195,358	\$195,358	\$195,358	\$195,358	\$195,358	\$195,358	\$195,358	\$195,358	\$195,358			
Rent and Lease	\$7,442	\$7,442	\$7,442	\$7,442	\$7,442	\$7,442	\$7,442	\$7,442	\$7,442			
Adv and Promo	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000			
Dist Eq Exp	\$77,935	\$77,935	\$77,935	\$77,935	\$77,935	\$77,935	\$77,935	\$77,935	\$77,935			
Maint & Rep	\$134,633	\$134,633	\$134,633	\$134,633	\$134,633	\$134,633	\$134,633	\$134,633	\$134,633			
Utilities	\$87,692	\$87,692	\$87,692	\$87,692	\$87,692	\$87,692	\$87,692	\$87,692	\$87,692			
Training	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000			
Purchased Svcs	\$103,880	\$103,880	\$103,880	\$103,880	\$103,880	\$103,880	\$103,880	\$103,880	\$103,880			
Bad Debt Loss	\$21,856	\$21,856	\$21,856	\$21,856	\$21,856	\$21,856	\$21,856	\$21,856	\$21,856			
Misc. Exp	\$88,571	\$88,571	\$88,571	\$88,571	\$88,571	\$88,571	\$88,571	\$88,571	\$88,571			
Operate Int.	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695			
\$ Other Income	\$350	\$350	\$350	\$350	\$350	\$350	\$3.50	\$3.50	\$350			
S Interest Expense	\$76,000	\$76,000	\$76,000	\$76,000	\$76,000	\$76,000	\$76,000	\$76,000	\$76,000			
\$ Income Tax	\$48,382	\$48,382	\$48,382	\$48,382	\$48,382	\$48,382	\$48,382	\$48,382	\$48,382			
\$ Dividends	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500			
Cash	\$64,540	\$64,540	\$64,540	\$64,540	\$64,540	\$64,540	\$64,540	\$64,540	\$64,540			
Accounts Receivable	\$590,396	\$590,396	\$590,396	\$590,396	\$590,396	\$590,396	\$590,396	\$590,396	\$590,396			
Inventory	\$2,467	\$2,467	\$2,467	\$2,467	\$2,467	\$2,467	\$2,467	\$2,467	\$2,467			
Investments	\$5,000	\$200,000	\$180,000	\$150,000	\$130,000	\$100,000	\$75,000	\$50,000	\$25,000			
Land	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000			
Land	\$250,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000			
Equipment	\$250,000	\$2,90,000	\$250,000	\$250,000	\$230,000	\$230,000	\$250,000	\$230,000	\$549,668			
Facilities	\$214,000	\$214,000	\$214,000	\$214,000	\$214,000	\$214,000	\$214,000	\$214,000	\$214,000			
Total Assets	\$1,696,071	\$1,891,071	\$1,871,071	\$1,841,071	\$1,821,071	\$1,791,071	\$1,766,071	\$1,741,071	\$1,716,071			
Payables	\$99,284	\$99,284	\$99,284	\$99,284	\$99,284	\$99,284	\$99,284	\$99,284	\$99,284			
Mortgage Payable	\$38,000	\$38,000	\$38,000	\$38,000	\$38,000	\$38,000	\$38,000	\$38,000	\$38,000			
Emergency Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
Long Term Liabilities	\$722,000	\$700,000	\$750,000	\$650,000	\$600,000	\$900,000	\$950,000	\$500,000	\$400,000			
Total Liabilities	\$859,284	\$837,284	\$887,284	\$787,284	\$737,284	\$1,037,284	\$1,087,284	\$637,284	\$537,284			

Multi-Year [9 year] PROFITABILITY LINKAGE MODEL [12 MONTH PROFIT & LOSS TOTALS AND ENDING BALANCE SHEET AMOUNTS]



Gross Margin/Profit Worksheet This worksheet contains a template that will assist you in estimating total receipts, gross margin and gross profits for a six month period.

Column A contains the forecasted market average prices and charges for the period identified above the table.

Column D contains the expected average forecasted product sales per dealership in your market in that period.

HOW TO USE SPREADSHEET:

1

Put period number you wish to work with in cell D12

You may replace the numbers in red.

Save under a different file name to preserve fomuli in original file

You should replace those prices and charges in Column A with your price and charge decisions for the period

and replace the quantities in Column D with your forecasted sales for the period.

Start estimating the sales of services by using the sales from the last similar period (Spring to Spring or Fall to Fall).

The estimates the sales of services in Column D are from the LAST SPRING in the Manual.

The rest of the cells in the template will be automatically calculated and updated.

PERIOD

Colu		Column A Column B		Column D	Column E	Column F	Column G
			Gross Margin				Estimated Total Gross
Product/Service	Retail \$/Unit	Wholesale \$/Unit	\$/Unit	Sales Forecast	Receipts	Estimated Cost of Goods Sold	Margin and Gross Profit
Straight Goods	\$ 232.00	\$ 173.00	\$ 59.00	1050	\$ 243,600	\$ 181,650	\$ 61,950
Bulk Blends	\$ 242.00	\$ 173.00	\$ 69.00	2100	\$ 508,200	\$ 363,300	\$ 144,900
Urea	\$ 273.00	\$ 198.00	\$ 75.00	1050	\$ 286,650	\$ 207,900	\$ 78,750
Anhydrous	\$ 318.00	\$ 248.00	\$ 70.00	1050	\$ 333,900	\$ 260,400	\$ 73,500
Liquid	\$ 162.00	\$ 123.00	\$ 39.00	950	\$ 153,900	\$ 116,850	\$ 37,050
Lime	\$ 91.00	\$ 65.00	\$ 26.00	840	\$ 76,440	\$ 54,600	\$ 21,840
N-serve	\$ 5.85	\$ 4.10	\$ 1.75	525	\$ 3,071	\$ 2,153	\$ 919
Chem. Packaged	\$ 25.50	\$ 19.75	\$ 5.75	4100	\$ 104,550	\$ 80,975	\$ 23,575
Chem. Bulk	\$ 21.50	\$ 16.75	\$ 4.75	25000	\$ 537,500	\$ 418,750	\$ 118,750
TOTALS					\$ 2,247,811	\$ 1,686,578	\$ 561,234
Floater Application (\$/acre)	\$ 3.50		\$ 3.50	26905	\$ 94,168	s -	\$ 94,168
Variable Rate Application (\$/acre)	\$ 7.00		\$ 7.00	992	\$ 6,944	s -	\$ 6,944
Dry Cart Rental (\$/acre)	\$ 1.00		\$ 1.00	2618	\$ 2,618	s -	\$ 2,618
Impregnation (\$/acre)	\$ 4.50		\$ 4.50	9840	\$ 44,280	s -	\$ 44,280
Blending (\$/ton)	\$ 2.00		\$ 2.00	2205	\$ 4,410	s -	\$ 4,410
NH3 Custom Application (\$/acre)	\$ 5.00		\$ 5.00	1103	\$ 5,515	s -	\$ 5,515
NH3 Tank Delivery (\$/ton)	\$ 10.00		\$ 10.00	662	\$ 6,620	s -	\$ 6,620
NH3 Equip Rental (\$/acre)	\$ 6.00		\$ 6.00	2756	\$ 16,536	s -	\$ 16,536
Chemical Application (Pre Plant) (\$/acre)	\$ 3.50		\$ 3.50	9167	\$ 32,085	s -	\$ 32,085
Chemical Spraying (Post Emerge) (\$/acre)	\$ 4.00		\$ 4.00	15278	\$ 61,112	s -	\$ 61,112
Crop Scouting (\$/acre)	\$ 2.50	\$ 2.00	\$ 0.50	5250	\$ 13,125	\$ 10,500	\$ 2,625
Soil Testing (\$/acre)	\$ 5.00	\$ 3.00	\$ 2.00	6300	\$ 31,500	\$ 18,900	\$ 12,600
Soil Mapping (\$/acre)	\$ 3.00	\$ 3.00	\$ -	4200	\$ 12,600	\$ 12,600	\$ -
TOTALS					\$ 331,512	\$ 42,000	\$ 289,512
TOTALS					\$2,579,323	\$1,728,578	\$850,746