2008 RETAIL SWEET CORN PRODUCTION BUDGET

## Hand Harvested

Authors: Brian Freytag - Ohio State University Extension Intern*
Barry Ward - Leader, Production Business Management*
Robert Precheur - Extension Specialist **

|  |  |  |  |  | Jpdated: |  | 5/19/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ITEM | EXPLANATION |  | PRICE PER |  | D (dozen |  | YOUR |
|  |  | umbers |  | 1000 | 1300 | 1500 | 1750 |
| RECEIPTS ${ }^{1}$ |  |  |  |  |  |  |  |
| Sweet Corn |  |  | \$3.00 / doz | \$3,000 | \$3,900 | \$4,500 | \$5,250.00 |
| VARIABLE COSTS | Seeding Rates |  |  |  |  |  |  |
| Seed ${ }^{2} 22000$ | 2400028000 | 28000 | \$4.50 /10000 | 9.90 | 10.80 | 12.60 | 12.60 |
| Per Pound/Acre | $\mathrm{lb} / \mathrm{acre}$ |  | /lb | - | - | - | - |
| Fertilizer ${ }^{3}$ | Application Rates |  |  |  |  |  |  |
| N (lb.) 100 | 120150 | 150 | \$0.713 /lb. | 71.25 | 85.50 | 106.88 | 106.88 |
| P2O5(lb.) 50 | 70100 | 100 | \$0.865 /lb. | 43.27 | 60.58 | 86.54 | 86.54 |
| $\mathrm{K} 2 \mathrm{O}(\mathrm{lb}) \quad$. | $70 \quad 100$ | 100 | \$0.484 /lb. | 24.21 | 33.89 | 48.42 | 48.42 |
| Lime(ton) | 0.25 | 0.25 | \$23.50 /ton | 5.88 | 5.88 | 5.88 | 5.88 |
| Herbicides ${ }^{4}$ |  |  |  |  |  |  |  |
| Pre-Emerg | 2.1 |  | \$36.54 /gal | 19.18 | 19.18 | 19.18 | 19.18 |
| Post-Emerg | 0.75 |  | \$18.32 /oz | 13.74 | 13.74 | 13.74 | 13.74 |
| Insecticides ${ }^{5}$ |  |  |  |  |  |  |  |
| At Planting | 8.7 |  | \$2.23 /lb | 19.40 | 19.40 | 19.40 | 19.40 |
| During Silking |  |  | \$87.31/gal | 6.55 | 6.55 | 6.55 | 6.55 |
| Fungicides ${ }^{6}$ |  | z/A | \$286.00 /gal | - | - | - | - |
| Fuel, Oil, Grease ${ }^{7}$ |  |  |  | 7.39 | 7.39 | 7.39 | 7.39 |
| Repairs ${ }^{8}$ |  |  |  | 5.38 | 5.38 | 5.38 | 5.38 |
| Hired Labor ${ }^{9}$ | 12.5 hours | \$6.55 | / hour | 81.88 | 81.88 | 81.88 | 81.88 |
| Miscellaneous ${ }^{10}$ |  |  |  | 8.00 | 9.00 | 10.00 | 10.00 |
| Int. on Oper. Cap. ${ }^{11}$ | 7 mo |  | 8.5\% | 15.67 | 17.81 | 21.01 | 21.01 |
| TOTAL VARIABLE COSTS | -Per Acre |  |  | 332 | 377 | 445 | 445 |
|  | -Per Dozen |  |  | 0.33 | 0.29 | 0.30 | 0.25 |
| FIXED COSTS |  |  |  |  |  |  |  |
| Operator Labor Charge ${ }^{12}$ | 3 hours |  | 13.50 /hr. | 40.50 | 40.50 | 40.50 | 41 |
| Mach. And Equip. Charge ${ }^{13}$ |  |  |  | 32.53 | 32.53 | 32.53 | 32.53 |
| Land Charge ${ }^{14}$ |  |  |  | 94.82 | 123.50 | 156.88 | 200.00 |
| Management Charge ${ }^{15}$ | $5 \%$ of gross rev |  |  | 150.00 | 195.00 | 225.00 | 262.50 |
| TOTAL FIXED COSTS |  |  |  | 317.85 | 391.53 | 454.91 | 535.53 |
| TOTAL COSTS | -Per Acre |  |  | 649.54 | 768.50 | 899.75 | 980.37 |
|  | -Per Dozen |  |  | 0.65 | 0.59 | 0.60 | 0.56 |
| RETURN ABOVE VARIABLE COST |  |  |  | 2,668.31 | 3,523.03 | 4,055.16 | 4,805.16 |
| RETURN ABOVE TOTAL COSTS |  |  |  | 2,350.46 | 3,131.50 | 3,600.25 | 4,269.63 |
| RETURN TO LABOR AND MANAG | MENT ${ }^{16}$ |  |  | 2,540.96 | 3,367.00 | 3,865.75 | 4,572.63 |
| RETURN TO LAND |  |  |  | 2,445.28 | 3,255.00 | 3,757.13 | 4,469.63 |

Values highlighted in gold may be changed to assist in computing "Your Budget" Column using macros embeded within the spreadsheet.
Values highlighted in light blue are cells embedded with macros and will be calculted for the user based on data entered.
These cells may be input manually, but macros will be overwritten!
Values highlighted in gray are stand alone cells that require direct input from the user.

* Brian Freytag and Barry Ward are part of the Department of Agricultural, Environmental, and Development Economics at OSU
${ }^{* *}$ Robert Precheur is a part of the Department of Horticulture and Crop Science at OSU
${ }^{1}$ Price estimated on University Experts' experience and research
${ }^{2}$ Seeding rates based on 30-36" rows with 8-12" in-row (2008 Ohio Vegetable Production Guide pg 247) Seed prices estimated from 2008 Rupp \& Seiger Seed Company cataloges
${ }^{3}$ Fertilizer rates provided by Robert Precheur (Ext. Spec) based on recent yield studies Also consult 2008 Ohio Vegetable Production Guide
Assumes only maintenance application of fertilizer needed

Fertilizer prices vary over time and by area. Check with local sources for current prices.
Assumes UAN(28-0-0): 399 /ton MAP(11-52-0): 900 /ton Potash(0-0-60): 581 /ton
4 Prices based on 2008 Dow Agroscience Prices
Pre-Emergence assumes use of Bicep II Magnum (s-metolachlor + atrazine + atrazine products (26.1\%+32\%+1.7\%)
Post-Emergence assumes the use of Impact 2.8L (topramezone)
See 2008 Ohio Vegetable Production Guide pp 258-260
${ }^{5}$ Insecticide prices provided by Gerald Grain Center (Ridgeville Corners, OH - Henry County) - Prices vary. Check with local sources for current prices. At Planting assumes use of Counter 15G (Terbufos) for seedcorn maggot, seedcorn beetle, rootworms, garden symphylans, flee beatle.
During Silking assumes use of Warrior (Lambda-cyhalothrin) for cutworms, armyworms, flea beatle, aphic, corn earworm, etc...
See 2008 Ohio Vegetable Production Guide pp 250-257
${ }^{6}$ Fungicides assumes usage of Tilt for Rust
See 2008 Ohio Vegetable Production Guide pp. 249 for application rates and other possible fungicides
${ }^{7}$ See table below for specific calculations. Lubrications costs are assumed to be $10 \%$ of fuel costs
${ }^{8}$ See table below for specific calculations.
${ }^{9}$ Hired Labor assumes 12.5 hours worked at $\$ 6.55$ per hour (minimum wage). Hours and pay rates may vary depending on size of farm and location.
10 Includes supplies, utilities, soil tests, small tools, software/hardware, transport of supplies and equipment, etc...
${ }^{11}$ Interest on all variable costs for 7 months at $9 \%$ interest rate.
12 Labor rate includes cash wages plus benefits.
${ }^{13}$ Reflects 1500 total acres. 5 acres of sweet corn, 745 acres of Field Corn and 750 acres of Soybeans. See table below for specific calculations.
14 Average based on 2007-2008 data. View website below for details:
http://aede.osu.edu/resources/docs/pdf/UDSIO6SG-9315-IQAW-X7QLG33KLHMNAZZ6.pdf
Land charges vary throughout the state, check your local rates
${ }^{15}$ Management Charge is calculated as $5 \%$ of Total Receipts.
${ }^{16}$ Return to labor and management is the revenue less total expenses except operator labor and management.
It is a measure of the returns to the operator's labor and management.

| Machinery Inventory |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number times used | $\begin{gathered} \text { Machinery } \\ \text { Cost } \end{gathered}$ | Acres per Year | Cost per Acre | Acres/ Hr | $\begin{gathered} \text { Fuel }^{*} \\ (\mathrm{gal} / \mathrm{A}) \end{gathered}$ |  | Repairs <br> (\$/A) |
| 15 ft . Chisel Plow | 1 | \$15,800 | 750 | \$2.86 | 8.5 | 0.60 | 88.24 | 0.57 |
| 23 ft . Field Cultivator | 1 | \$29,400 | 750 | \$5.33 | 16.6 | 0.32 | 45.21 | 0.57 |
| 50 ft . Boom Sprayer | 3 | \$18,900 | 1,500 | \$1.71 | 25.6 | 0.30 | 175.71 | 1.08 |
| 8 Row Planter | 1 | \$28,400 | 750 | \$4.79 | 9.3 | 0.34 | 80.39 | 0.89 |
| Fertilizer Spreader | 1 | \$11,550 | 1,500 | \$1.05 | 25.6 | 0.12 | 58.59 | 0.24 |
| 200 HP Tractor | 4 | \$142,000 | 1,500 | \$12.69 | ----- | ----- | 272.42 | 1.72 |
| 75 HP Tractor | 3 | \$32,000 | 1,500 | \$2.76 | ----- | ----- | 175.71 | 0.26 |
| Pickup Truck (1/2)** | 1 | \$15,000 | 1,500 | \$1.34 | ----- | 0.20 |  | 0.05 |
| Machinery and Equipment Charge per Acre |  |  |  |  | Fuel | 6.72 |  |  |
|  |  |  |  | \$32.53 | F\&L | 7.39 | Repairs | 5.38 |
|  |  |  |  |  |  | Price of Diesel Fuel = |  | \$3.50 |

Machinery cost estimates, fuel estimates and cost calculations based on information from the "Farm Machinery Cost Estimates
March 2008". See the reference online at:
http://www.extension.umn.edu/distribution/businessmanagement/DF6696.pdf

## Machinery and Equipment charge =

Cost per Acre $=$ Machinery Cost (New Cost) Assumes 8 Year Useful Life using Straight Line Depreciation, $6.0 \%$ Interest on Average Value, $0.5 \%$ Insurance Cost on Average Value and $1.0 \%$ Housing Cost on Average Value.
Salvage Values are based on ASAE formulas.
Machines are all assumed to be new and in the first year of use (Except for Pickup Truck).
View next worksheet (Machinery Costs below) for details on calculations for Cost per Acre
*Fuel calculations are based on the implement plus tractor.
**Semi Tractor Trailer and Pickup Truck are assumed to be used equipment.
***Fuel for Semi is included in Budget as Trucking - Fuel Only

