## Managing Margins in 2017

$12^{\text {th }}$ Farming for the Future Conference Coalition to Support lowa's Farmers

## Ames, Iowa

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## Recent Trends

- Low crop prices
- Declining, but lagging input costs
- Low profit margins
- Declining Net Farm Income
- Deterioration in Farms':
- Financial liquidity (hurt most)
- Financial solvency
- How to manage margins?


## Farm Income in Iowa 1999-2015

 (Source: lowa Farm Business Assoc.) —Net farm income-accrual - -Net farm income-cash \$300,000\$250,000
\$200,000
\$150,000
\$100,000
\$50,000


After asset depreciation and changes in inventories, Farm Income ~\$25,000
tturns.
arious years.

## Changes in Liquidity and Solvency Ratings (Jan 2015 vs Jan 2016)

Liquidity (Current Ratio)
Jan'16

| $29 \%$ | $+7 \%$ | $36 \%$ |
| :---: | :---: | :---: |
| $20 \%$ | $+0.6 \%$ | $21 \%$ |
| $51 \%$ |  |  |
|  | $-7.6 \%$ | $43 \%$ |

$\square$ Vulnerable $\square$ Under Watch $\square$ Strong

Solvency (Debt-to-Asset Ratio) Jan'15

| 19\% | +4\% | 22\% |
| :---: | :---: | :---: |
| 38\% | 0.7\% | 37\% |
| 44\% | -3.2 | 41\% |

$\square$ Vulnerable $\square$ Under Watch $\square$ Strong

316 farms, lowa Farm Business Association

## How much working capital did lowa farms burn through in 2015?

| Liquidity Rating Jan'15 | Liquidity Rating Jan'16 | Change in Working $\qquad$ | \% Change vs Jan'15 | Number of Farms |
| :---: | :---: | :---: | :---: | :---: |
| Vulnerable | Vulnerable | -42,752 | -45\% | 77 |
| Vulnerable | Under Watch | 62 959 | 256\% |  |
| Vulnerable | Strong | 111,0411 | 141\% |  |
| Under Watch | Vulnerable | -326,265 | -66\% | 28 |
| Under Watch | Under Watch | - 75857 | -22\% | - 20 |
| Under Watch | Strong | 125, 106 | 42\% | 7 |
| Strong | Vulnerable | -356,407 | -79\% | 9 |
| Strong | Under Watch | -169,874 | -45\% | 24 |
| Strong | Strong | - 11,937 | -10\% | -107 |
| All Farms |  | -91,658 | -24\% | 316 |

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Source: Plastina, A. Ag Decision Maker File C1-12 $\mathrm{N}=316$

## U.S. Corn Supply and Use

|  |  | 2013 | 2014 | 2015 | 2016 | 2017 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Area Planted | (mil. acres) | 95.4 | 90.6 | 88.0 | 94.0 | 90.0 |
| Yield | (bu./acre) | 158.1 | 171.0 | 168.4 | 174.6 | 170.8 |
| Production | (mil. bu.) | 13,829 | 14,216 | 13,601 | 15,148 | 14,060 |
| Beg. Stocks | (mil. bu.) | 821 | 1,232 | 1,731 | 1,737 | 2,403 |
| Imports | (mil. bu.) | 36 | 32 | 67 | 55 | 50 |
| Total Supply | (mil. bu.) | 14,686 | 15,479 | 15,400 | 16,940 | 16,513 |
| Feed \& Residual | (mil. bu.) | 5,040 | 5,280 | 5,130 | 5,600 | 5,500 |
| Ethanol | (mil. bu.) | 5,124 | 5,200 | 5,206 | 5,325 | 5,325 |
| Food, Seed, \& Other | (mil. bu.) | 1,369 | 1,401 | 1,429 | 1,435 | 1,440 |
| Exports | (mil. bu.) | 1,920 | 1,867 | 1,898 | 2,225 | 1,950 |
| Total Use | (mil. bu.) | 13,454 | 13,748 | 13,662 | 14,585 | 14,215 |
| Ending Stocks | (mil. bu.) | 1,232 | 1,731 | 1,738 | 2,355 | 2,298 |
| Season-Average Price | (\$/bu.) | 4.46 | 3.70 | 3.61 | 3.40 | 3.30 |

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## World Corn Production

| Country or Region | 2015/16 estimate | 2016/17 <br> forecast | Change from December 9 | Change from 2015/16 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Million Tons |  |  |  |  |
| World | 961.1 | 1,037.9 | -1.80 | 76.8 | +8\% |
| United States | 345.5 | 384.8 | -1.97 | 39.3 | +11\% |
| Foreign | 615.6 | 653.1 | 0.17 | 37.6 |  |
| Argentina | 29.0 | 36.5 | -- | 7.5 | +26\% |
| Brazil | 67.0 | 86.5 | -- | 19.5 | +29\% |
| Mexico | 25.8 | 24.5 | -- | -1.3 |  |
| Canada | 13.6 | 13.2 | -- | -0.4 |  |
| European Union | 58.5 | 60.7 | -0.02 | 2.2 |  |
| Serbia | 6.0 | 7.5 | 0.50 | 1.5 |  |
| FSU-12 | 39.8 | 46.6 | -- | 6.7 | +17\% |
| Ukraine | 23.3 | 27.0 | -- | 3.7 |  |
| Russia | 13.2 | 15.5 | -- | 2.3 |  |
| South Africa | 7.9 | 13.0 | -- | 5.1 |  |
| China | 224.6 | 219.6 | -- | -5.1 |  |
| India | 21.8 | 24.5 | -- | 2.7 |  |
| -- No change |  |  |  |  |  |

## U.S. Soybean Supply and Use

|  |  | 2013 | 2014 | 2015 | 2016 | 2017 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Area Planted | (mil. acres) | 76.8 | 83.3 | 82.7 | 83.4 | 85.5 |
| Yield | (bu./acre) | 44.0 | 47.5 | 48.0 | 52.1 | 47.9 |
| Production | (mil. bu.) | 3,358 | 3,927 | 3,926 | 4,307 | 4,050 |
| Beg. Stocks | (mil. bu.) | 141 | 92 | 191 | 197 | 480 |
| Imports | (mil. bu.) | 72 | 33 | 24 | 25 | 30 |
| Total Supply | (mil. bu.) | 3,570 | 4,052 | 4,140 | 4,528 | 4,560 |
| Crush | (mil. bu.) | 1,734 | 1,873 | 1,886 | 1,930 | 1,935 |
| Seed \& Residual | (mil. bu.) | 107 | 146 | 121 | 128 | 130 |
| Exports | (mil. bu.) | 1,638 | 1,842 | 1,936 | 2,050 | 2,100 |
| Total Use | (mil. bu.) | 3,478 | 3,862 | 3,943 | 4,108 | 4,165 |
| Ending Stocks | (mil. bu.) | 92 | 191 | 197 | 420 | 396 |
| Season-Average Price | (\$/bu.) | 13.00 | 10.10 | 8.95 | 9.50 | 9.35 |

IOWA STATE UNIVERSITYSource: USDA-WAOB 2013-16, USDA-OCE 2017

## World Soybean Production

| Country or <br> Region | $2015 / 16$ <br> estimate | 2016/17 <br> forecast | Change from <br> December 9 | Change from <br> 2015/16 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Million Tons |  |  |  |  |
| World | 313.5 | 337.9 | -0.15 | 24.3 | $+8 \%$ |
| $\quad$ United States | 106.9 | 117.2 | -1.48 | 10.4 | $+10 \%$ |
| Foreign | 206.7 | 220.6 | 1.33 | 14.0 |  |
| Argentina | 56.8 | 57.0 | -- | 0.2 |  |
| Brazil | 96.5 | 104.0 | 2.00 | 7.5 | $+8 \%$ |
| Paraguay | 9.0 | 9.2 | -- | 0.2 |  |
| Ukraine | 3.9 | 4.0 | -- | 0.1 |  |
| India | 7.1 | 11.5 | -- | 4.4 |  |
| China | 11.8 | 12.9 | 0.40 | 1.1 |  |

-- No change


Source: Federal Reserve Ag Decision Maker


## Current Soybean Futures



## Costs of Crop Production in Iowa

\$ per bushel


## IA Gross Margins per Acre (Price - Cost)


$\square$ Corn following Corn (165 bu/acre) $\triangle$ Corn following Soybeans (180 bu/acre)
$\square$-Soybeans following Corn (50 bu/acre)
*USDA/WASDE Forecast (Mid-point). Jan 12, 2016.
${ }^{\wedge}$ Calculation by Dr. Chad Hart based on Futures Prices (CME Group). Jan 12, 2016.

## 9 Strategies to manage margins

- Major concern: cash flow / liquidity
- Solvency hit, but less:
- Declining land values in lowa
- Declining machinery values
- Long term problem $\rightarrow$ strategy for 2-3 years


## Strategies:

## 1. Protect your working capital

- Revise scale of operation and fixed costs over next 2-3 years. In particular:
- Recent asset purchases
- Rented land
- Manage taxes: visit with tax advisor
- Carry back operating losses to obtain tax refunds


## Strategies:

## 2. Avoid cash shortages

- Plan for operating losses (rented land)
- Maintain cash reserves
- Secure operating loan/emergency loan terms
- Be very careful with new capital expenditures


## Strategies:

## 3. Diversify Income

- Add or don't lose non-farm income
- Consider alternative sources of revenue with your assets: custom work, snow removal, truck driving in fall \& winter, ???


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## Strategies:

## 4. Revise production costs

- Revise production plans, especially for rented land (renegotiate land rent?)
- Can you make changes that generate savings that offset reductions in revenue?
- $\downarrow N 20$ lbs per acre? Savings $\$ 10$. If yield $\downarrow$ smaller than 2.59 bu/acre @ \$3.86/bu, GO AHEAD! Otherwise, NO GO.
- Switch to seeds with fewer traits (+crop management)? Net savings $\$ 25 /$ acre. If yield $\downarrow$ smaller than 6.47 bu/acre @ $\$ 3.86 / b u$, GO AHEAD! Otherwise, NO GO.
- Seek volume discounts in seeds, chemicals, etc.
- Visit with Agronomist: update your production skills, evaluate how to control costs


## Strategies:

## 5. Actively Manage Risks

- Know your break-even prices
- Design a marketing plan with price and date targets and stick to it
- Lock-in margins whenever possible
- Revise crop insurance (Explore ways to maintain protection while lowering costs)
- Revise use of forward contracts \& crop insurance for pre-harvest marketing


## Strategies:

## 6. Revise family living expenses

- Average NFI (2015): \$25,000
- Average farm size in sample: 800 acres
- Need $\sim 1,300$ acres to afford \$40,000 in living expenses
- And ~2,250 for $\$ 70,000$ !
- Revise family living expenditures:
- Vacation plans
- House remodeling plans
- Truck purchase


## Strategies:

## 7. Secure repayment capacity

- Short repayment schedules reduce cash flow vs. long repayment schedules
- Try to extend repayment schedules on equipment \& real estate loans (low interest rates)
- Work a plan with your lender(s) for 2017-2018


## Strategies:

## 8. Revise Growth Strategy

Depending on your growth stage:

- Offload unproductive assets
- Downsize
- Slow down growth
- Beginning farmers: wait to buy land
- Align short term needs with long term growth goals


## Strategies:

## 9. Know your ARC/PLC Payments

- Payments vary widely across counties and programs
- PLC payments in Oct 2017:
- 7 cents per corn base acre;
- no beans payment.
- Average ARC-CO Payments in Oct 2017:
- \$34 per Corn base acre (range \$0 - \$85)
- \$16 per Soybean base acre (range \$0-\$55)



Updated: 10/14/2016 Data source: USDA FSA
See detalls in AgDM Flle A1-33, ARC/PLC Payments by Crop and County www.extension.|astate.edu/agdm/crops/x|l/a/a1-33farmbilldata.x|sx

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## Summary

- Expect low to negative margins in 2017
- Visit with:
$\checkmark$ Agronomist - control costs?
$\checkmark$ Lender - refinance, lower payments?
$\checkmark$ Tax advisor - refunds from previous years?
$\checkmark$ Crop insurance agent - change coverage?
- Use resources @ Ag Decision Maker: http://www.extension.iastate.edu/agdm/


## Thank you for your time!

## Questions?

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