START HERE

Part I: Multiple Choice. 3 points each.

1. Risk and uncertainty is a part of production agriculture and needs to be effectively managed. Strategies to deal with risk and uncertainty would include:
   a. buy land so you can lock in your land payments.
   b. market your grain in the cash market to be priced the day of sale which will reduce the risk of low grain prices.
   c. use of the same production technology that you have used in the past and avoiding adjusting.
   d. getting access to improved information.
   e. all of the above

2. A cash flow budget can be used to:
   a. estimate when and how much money will need to be borrowed during the year.
   b. estimate when and how much debt can be repaid during the year.
   c. estimate when excess cash may be available so plans can be made to invest it.
   d. plan your credit needs.
   e. all of the above.

3. When preparing a cash flow budget for 2004 you would:
   a. use it to project your expected Net Farm Income from Operations.
   b. include depreciation so you know how much cash is needed to replace assets.
   c. include expense for fertilizer applied during the Fall 2004 that you paid in 2005. You need to account for it in the year it was applied.
   d. consider family living expenses that are paid next year but are used this year.
   e. none of the above.
4. Information is provided which shows returns from finishing feeder pigs in Iowa-Southern Minnesota. Given this information, what percent of the time would you expect no profit in finishing out feeder pigs?
   a. 64.1%
   b. 35.8%
   c. 76.6%
   d. can’t calculate with the information provided
   e. none of the above

5. The probability that the outcome of an uncertain event will be equal to or greater than a selected value is given by:
   a. the coefficient of variation
   b. the standard deviation
   c. the expected value
   d. the one-half the expected value
   e. none of the above

The following six questions are based on the information provided which shows Percent Returns on Investment by Iowa Farm Type for 1970-2002.

6. Which enterprise would you choose if you want to minimize losses or select that enterprise that would do the best in the worst situation? (Base your answer utilizing the approach where 68% of the observations would fall or one standard deviation.)
   a. hogs
   b. beef feeding
   c. dairy
   d. grain
   e. beef raising

7. Given this Iowa farm return information, where would you expect the percent return on investment for beef raising production to fall 68 percent of the time?
   a. 15.0 and -1.7%
   b. 6.8 and 2.8%
   c. 11.8 and -1.7%
   d. between 3.7 and 10.9%
   e. none of the above

8. Which enterprise provides the highest expected or average return on investment?
   a. hogs
   b. beef feeding
   c. dairy
   d. grain
   e. beef raising
9. With information provided, what is the coefficient of variation for grain production?
   a. 2.06  
   b. .49  
   c. .44  
   d. .51  
   e. .25

10. Which enterprise would you choose if you want to pick the enterprise which would provide the highest possible income or rate of return on investment? (Base your answer utilizing the approach where 68% of the observations would fall or one standard deviation.)
   a. hogs  
   b. beef feeding  
   c. dairy  
   d. grain  
   e. beef raising

11. Which enterprise would you choose if you want to choose the highest expected or average rate of return on investment but it cannot fall below a 3.7 percent rate of return? (Base your answer utilizing the approach where 68% of the observations would fall or one standard deviation.)
   a. hogs  
   b. beef feeding  
   c. dairy  
   d. grain  
   e. beef raising

12. Dr. Mike Duffy:
   a. is a state extension specialist working in Iowa  
   b. works with the USDA developing new farm program policy  
   c. works with the Iowa Department of Agriculture establishing new farm policy  
   d. is an agronomist who evaluates crop yield and cost of production information

13. In his presentation, Dr. Mike Duffy showed that:
   a. direct government payments to Iowa farms has not changed since the early 1980s.  
   b. direct government payments to Iowa farms has declined since the early 1980s.  
   c. direct government payments to Iowa farms has increased since the early 1980s.  
   d. none of the above

14. Dr. Mike Duffy discussed the Farm Security and Rural Investment Act (FSRIA) of 2002. The FSRIA has three types of payments. These are:
   a. loan deficiency payment (LDP), loan forgiveness, and interest buy down (IBD)  
   b. loan deficiency payment (LDP), counter cyclical payment (CCP), and direct payment  
   c. loan deficiency payment (LDP), direct payment, and higher crop yields (HCY)  
   d. loan deficiency payment (LDP), emergency line of credit (ELC), and counter cyclical payment (CCP)  
   e. none of the above
15. You have the opportunity to purchase a neighboring 80 acres for $200,000. You project that the land will increase in value at about 5% per year over the next 25 years. Given this, what will the value of the land be in 25 years? (Attached information provided may be helpful.)
   a. $9,545,420
   b. $2,818,780
   c. $677,280
   d. $330,660
   e. none of the above

16. Mr. Loyd Brown:
   a. is President of Hertz Building Investment division
   b. is a professional farm manager who is President of Hertz Farm Management, Inc.
   c. is the President of Hinkins Property Management
   d. is an employee of the Iowa Land Management Corporation
   e. none of the above

17. Mr. Loyd Brown discussed criteria for hiring a farm manager. They include:
   a. positive attitude
   b. good people skills
   c. raised on a farm
   d. 4 year degree in agriculture
   e. all of the above are criteria

18. Mr. Loyd Brown discussed their management clients. Of their clients, __________ percent are individuals or multiple family members.
   a. 12%
   b. 54%
   c. 25%
   d. 73%
   e. none of the above

19. The process of finding the future value of a present sum is called:
   a. compounding
   b. amortizing
   d. budgeting
   e. none of the above

20. The process of finding the present value of a future sum is called:
   a. compounding
   b. discounting
   c. amortizing
   d. budgeting
   e. none of the above
21. You are looking at buying the neighboring 100 acres. The purchase price is $300,000. You calculate that you can generate a profit of $8,000 per year. You also calculate that you expect the value of land to appreciate at 5% per year. The value of money to you or the discount rate is 7 percent. You plan to own the farm for 25 years. Given this, what is the present value of the land purchase?
   a. $1,101,318
   b. $280,412
   c. $393,229
   d. $251,336
   e. $300,000

22. Using a lower discount rate will cause the present value of future amount to:
   a. increase
   b. decrease
   c. remain constant
   d. increase initially, but then decrease
   e. none of the above

23. You have the option to buy a 100-acre farm. You have calculated that the profit will be $150 per acre. If the interest rate (or discount value) is 6 percent, what is the present value of the profit from the farm? You plan to own it for 30 years. (Attached information provided may be useful).
   a. $206,472
   b. $86,152
   c. $1,185,873
   d. $189,761
   e. none of the above

The following information is for the next three questions.

You purchased a four-wheel drive tractor today, April 28, 2004. It has it all: triple on each axle, air cooled seat and climate controlled cab, computer hook-up for market reports and farm records, guidance system, air glide riding system, surround sound stereo system, chrome ladder for getting into and out of your ‘second home’, and velvet seat covers. It will even pull tillage equipment. The purchase price was $180,000.

24. How much regular MACRS depreciation can you claim in 2005? (Do not expense, not mid quarter, no 50% bonus).
   a. $27,000
   b. $34,439
   c. $45,900
   d. $17,220
   e. none of the above
25. How much regular straight-line depreciation can you claim on the tractor in 2004? (Do not expense, not mid quarter, no 50% bonus.)
   a. $25,714
   b. $36,000
   c. $18,000
   d. $12,857
   e. None of the above.

26. If you use additional first year expensing, 50 percent bonus depreciation, and regular MACRS depreciation, how much is your level of depreciation claimed for all three methods together for 2004? (You are filing a joint return.)
   a. $144,286
   b. $142,143
   c. $190,000
   d. $199,643
   e. Can't calculate with the information provided.

27. You purchased the following 3- through 20-year class life assets in 2004.

   February 2004 purchased pickup $30,000
   May 2004 purchased beef cows $60,000
   September 2004 purchased tractor $120,000
   November 2004 purchased livestock confinement facility $200,000

   Given this, what is the level of regular MACRS depreciation that can be claimed on the livestock confinement facility in 2004? (Do not expense, no 50% bonus.)
   a. $15,000
   b. $7,500
   c. $3,750
   d. $1,874
   e. None of the above.

28. Today April 28, 2004, you traded a tractor for another tractor. The remaining book value of the traded tractor was $40,000. You paid $50,000 in cash 'boot' for the new tractor plus the tractor traded. Given this, how much regular MACRS depreciation do you claim on the new tractor in 2004?
   a. $5,357
   b. $9,643
   c. $7,500
   d. $13,500
   e. Can't calculate with the information provided.
29. We wish you all the very best. For those graduating, go for it!!! For those returning, have a great and eventful summer!
   a. I will do that!
   b. I do not plan on doing that.
   c. ‘B’ is not an acceptable answer.

30. If your federal and state income marginal tax rate was 45 percent, how much would you reduce your tax bill by purchasing depreciable assets and claiming additional first year expensing, bonus 50 percent depreciation and regular depreciation of $150,000?
   a. $82,500
   b. $75,000
   c. $67,500
   d. Depreciation is not tax deductible.
   e. None of the above.

31. Dr. Chad Hart discussed types of crop insurance available for crop producers. They included:
   a. individual yield, individual history, area yield
   b. individual revenue, individual yield, area yield
   c. individual yield, area acres, individual history
   d. individual revenue, area history, area acres
   e. None of the above.

32. Dr. Hart indicated that choice of crop insurance policy depends upon several factors. These factors included:
   a. type of farm and crop mix
   b. how well the county average yield represents your farm
   c. your marketing strategy
   d. All of the above.
   e. None of the above.

33. Dr. Hart discussed livestock insurance available to livestock producers. The products available included:
   a. livestock risk protection
   b. livestock gross margins
   c. livestock reduced production level
   d. All of the above.
   e. a and b above.
Supporting Information
for
Econ 330
Exam 4
Spring 2004
# Monthly Returns from Finishing Feeder Pigs

Table 1. Estimated returns from finishing feeder pigs in Iowa—Southern Minnesota, by sale month. 10-year summary.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>12.38</td>
<td>-8.38</td>
<td>7.68</td>
<td>-0.94</td>
<td>1.98</td>
<td>-2.78</td>
<td>-5.97</td>
<td>-46.28</td>
<td>-19.79</td>
<td>1.04</td>
<td>-6.09</td>
</tr>
<tr>
<td>March</td>
<td>14.25</td>
<td>-3.13</td>
<td>19.38</td>
<td>-5.58</td>
<td>-3.60</td>
<td>0.73</td>
<td>-14.61</td>
<td>-30.28</td>
<td>-18.46</td>
<td>-1.39</td>
<td>-4.27</td>
</tr>
<tr>
<td>April</td>
<td>12.91</td>
<td>-0.09</td>
<td>14.69</td>
<td>-6.11</td>
<td>-16.09</td>
<td>-1.25</td>
<td>-3.69</td>
<td>-29.37</td>
<td>-2.08</td>
<td>6.17</td>
<td>-2.49</td>
</tr>
<tr>
<td>May</td>
<td>18.25</td>
<td>11.69</td>
<td>11.06</td>
<td>-11.45</td>
<td>-20.62</td>
<td>25.66</td>
<td>10.42</td>
<td>-1.47</td>
<td>-2.54</td>
<td>0.34</td>
<td>4.13</td>
</tr>
<tr>
<td>June</td>
<td>6.55</td>
<td>5.31</td>
<td>8.81</td>
<td>-22.31</td>
<td>-4.37</td>
<td>14.88</td>
<td>-4.09</td>
<td>-0.09</td>
<td>-23.70</td>
<td>-3.81</td>
<td>-2.28</td>
</tr>
<tr>
<td>July</td>
<td>3.90</td>
<td>-2.92</td>
<td>-7.39</td>
<td>-27.33</td>
<td>8.26</td>
<td>11.71</td>
<td>0.21</td>
<td>-20.53</td>
<td>-30.72</td>
<td>7.38</td>
<td>-5.74</td>
</tr>
<tr>
<td>August</td>
<td>-5.81</td>
<td>1.50</td>
<td>-1.53</td>
<td>-19.98</td>
<td>5.33</td>
<td>14.59</td>
<td>-14.85</td>
<td>-17.87</td>
<td>-15.77</td>
<td>-21.00</td>
<td>-7.54</td>
</tr>
<tr>
<td>November</td>
<td>-17.28</td>
<td>3.64</td>
<td>-18.90</td>
<td>-38.01</td>
<td>-11.61</td>
<td>8.70</td>
<td>-22.69</td>
<td>-37.56</td>
<td>-3.53</td>
<td>-23.52</td>
<td>-16.07</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>$2.57</td>
<td>$0.67</td>
<td>$2.18</td>
<td>-$19.22</td>
<td>-$2.53</td>
<td>$8.44</td>
<td>-$10.38</td>
<td>$-27.96</td>
<td>$-14.63</td>
<td>$-6.98</td>
<td>$-6.78</td>
</tr>
</tbody>
</table>

During the 1991-2000 period the range in profits was from $-53.09 to $25.66.

During this period, 35.8 percent of the months were profitable and 64.2 percent of the months were unprofitable.

<table>
<thead>
<tr>
<th>Month sold</th>
<th>Profit</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>February</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>March</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>April</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>May</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>June</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>July</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>August</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>September</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>October</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>November</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>December</td>
<td>30%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Months of

| Profit Over $25 | 0.8% of months |
| Profit $20 - 25 | 0.0% of months |
| Profit $15 - 20 | 3.3% of months |
| Profit $10 - 15 | 10.0% of months |
| Profit $5 - 10  | 9.2% of months |
| Profit $0 - 5   | 12.5% of months |
| Loss $0 - $5    | 17.5% of months |
| Loss $-5 - $10  | 8.3% of months |
| Loss $-10 - $15 | 8.3% of months |
| Loss $-15 - $20 | 8.3% of months |
| Loss $-20 - $25 | 9.2% of months |
| Loss Over $25   | 12.5% of months |

The assumptions used in computing the returns are outlined in File B1-33.

Source: Iowa State University Estimated Livestock Returns.

---

IOWA STATE UNIVERSITY
University Extension

John D. Lawrence
extension livestock economist
515-294-6860
<table>
<thead>
<tr>
<th>Year</th>
<th>Hog</th>
<th>Beef Feeding</th>
<th>Dairy</th>
<th>Grain</th>
<th>Beef Raising</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>4.4</td>
<td>4.2</td>
<td>6.1</td>
<td>5.6</td>
<td>NA</td>
</tr>
<tr>
<td>1971</td>
<td>6.4</td>
<td>9.3</td>
<td>6.6</td>
<td>5.4</td>
<td>NA</td>
</tr>
<tr>
<td>1972</td>
<td>13.4</td>
<td>9.7</td>
<td>8.6</td>
<td>9.6</td>
<td>NA</td>
</tr>
<tr>
<td>1973</td>
<td>23.8</td>
<td>13.4</td>
<td>14.8</td>
<td>16.2</td>
<td>NA</td>
</tr>
<tr>
<td>1974</td>
<td>13.3</td>
<td>2.9</td>
<td>8.3</td>
<td>14.2</td>
<td>NA</td>
</tr>
<tr>
<td>1975</td>
<td>10.1</td>
<td>7.3</td>
<td>2.5</td>
<td>6.1</td>
<td>3.6</td>
</tr>
<tr>
<td>1976</td>
<td>10.2</td>
<td>4.3</td>
<td>8.5</td>
<td>10.8</td>
<td>2.7</td>
</tr>
<tr>
<td>1977</td>
<td>6.8</td>
<td>3.9</td>
<td>4.9</td>
<td>4.5</td>
<td>2.9</td>
</tr>
<tr>
<td>1978</td>
<td>10.4</td>
<td>10.8</td>
<td>8.3</td>
<td>7.0</td>
<td>8.0</td>
</tr>
<tr>
<td>1979</td>
<td>5.4</td>
<td>8.4</td>
<td>10.8</td>
<td>7.3</td>
<td>7.3</td>
</tr>
<tr>
<td>1980</td>
<td>7.9</td>
<td>6.2</td>
<td>8.5</td>
<td>8.6</td>
<td>3.8</td>
</tr>
<tr>
<td>1981</td>
<td>3.6</td>
<td>3.8</td>
<td>4.9</td>
<td>4.0</td>
<td>2.9</td>
</tr>
<tr>
<td>1982</td>
<td>6.9</td>
<td>3.1</td>
<td>2.0</td>
<td>2.9</td>
<td>1.9</td>
</tr>
<tr>
<td>1983</td>
<td>3.9</td>
<td>5.4</td>
<td>2.5</td>
<td>6.2</td>
<td>3.3</td>
</tr>
<tr>
<td>1984</td>
<td>5.5</td>
<td>5.4</td>
<td>3.8</td>
<td>2.3</td>
<td>(0.3)</td>
</tr>
<tr>
<td>1985</td>
<td>9.4</td>
<td>4.5</td>
<td>7.0</td>
<td>7.5</td>
<td>5.2</td>
</tr>
<tr>
<td>1986</td>
<td>15.0</td>
<td>8.3</td>
<td>NE</td>
<td>7.0</td>
<td>5.9</td>
</tr>
<tr>
<td>1987</td>
<td>18.0</td>
<td>11.0</td>
<td>13.0</td>
<td>8.0</td>
<td>15.0</td>
</tr>
<tr>
<td>1988</td>
<td>11.0</td>
<td>9.0</td>
<td>14.0</td>
<td>13.0</td>
<td>14.0</td>
</tr>
<tr>
<td>1989</td>
<td>10.0</td>
<td>6.0</td>
<td>NE</td>
<td>9.0</td>
<td>6.0</td>
</tr>
<tr>
<td>1990</td>
<td>17.0</td>
<td>13.0</td>
<td>15.0</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>1991</td>
<td>8.0</td>
<td>(2.0)</td>
<td>3.0</td>
<td>6.4</td>
<td>6.2</td>
</tr>
<tr>
<td>1992</td>
<td>7.0</td>
<td>10.0</td>
<td>11.0</td>
<td>4.0</td>
<td>7.0</td>
</tr>
<tr>
<td>1993</td>
<td>7.0</td>
<td>3.7</td>
<td>7.3</td>
<td>5.0</td>
<td>3.9</td>
</tr>
<tr>
<td>1994</td>
<td>3.4</td>
<td>4.7</td>
<td>6.7</td>
<td>8.2</td>
<td>4.5</td>
</tr>
<tr>
<td>1995</td>
<td>11.4</td>
<td>7.3</td>
<td>6.0</td>
<td>12.1</td>
<td>3.9</td>
</tr>
<tr>
<td>1996</td>
<td>11.4</td>
<td>8.6</td>
<td>6.4</td>
<td>10.2</td>
<td>4.3</td>
</tr>
<tr>
<td>1997</td>
<td>9.2</td>
<td>6.7</td>
<td>5.0</td>
<td>9.3</td>
<td>6.7</td>
</tr>
<tr>
<td>1998</td>
<td>(6.6)</td>
<td>(1.0)</td>
<td>8.3</td>
<td>1.3</td>
<td>(1.7)</td>
</tr>
<tr>
<td>1999</td>
<td>4.8</td>
<td>5.5</td>
<td>10.6</td>
<td>2.5</td>
<td>3.4</td>
</tr>
<tr>
<td>2000</td>
<td>11.4</td>
<td>7.1</td>
<td>7.0</td>
<td>6.3</td>
<td>4.3</td>
</tr>
<tr>
<td>2001</td>
<td>7.6</td>
<td>2.2</td>
<td>11.2</td>
<td>3.2</td>
<td>1.0</td>
</tr>
<tr>
<td>2002</td>
<td>6.4</td>
<td>5.1</td>
<td>7.2</td>
<td>6.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Average</td>
<td>8.9</td>
<td>8.3</td>
<td>7.7</td>
<td>7.2</td>
<td>4.8</td>
</tr>
<tr>
<td>High</td>
<td>23.8</td>
<td>13.4</td>
<td>15.0</td>
<td>16.2</td>
<td>15.0</td>
</tr>
<tr>
<td>Low</td>
<td>(6.6)</td>
<td>(2.0)</td>
<td>2.0</td>
<td>1.3</td>
<td>(1.7)</td>
</tr>
<tr>
<td>Standard Dev.</td>
<td>5.3</td>
<td>3.5</td>
<td>4.5</td>
<td>3.5</td>
<td>1.0</td>
</tr>
<tr>
<td>+2 Std</td>
<td>19.5</td>
<td>13.3</td>
<td>16.1</td>
<td>14.1</td>
<td>6.8</td>
</tr>
<tr>
<td>-2 Std</td>
<td>(1.7)</td>
<td>(0.7)</td>
<td>(-1.3)</td>
<td>0.2</td>
<td>(1.7)</td>
</tr>
</tbody>
</table>

```
   Beef Raising  Beef Feeding Dairy Grain Hog
Average        4.8       6.3       7.2    7.7  9.0
  +2 Std       6.8       13.3      14.1   16.1 19.5
  -2 Std       2.8        (0.7)    0.2   (-1.3) (1.7)
```