Content of my program in general

• I aim for the content of my extension marketing program to be
  – research-based
  – current with empirical support
    • actual basis estimates
  – creative in communication
    • good examples
  – timely
    • within a week of current events/reports
  – never the same presentation twice
  – devoid of any predictions or advice
Content of my marketing program

• The mechanics and important underlying relationships are spelled out in a handbook that I co-authored
  – price risk, futures prices, basis
  – how basis varies locally (NC, GA, SC)
  – using basis to manage risk
  – govt. programs and how do they influence price risk management

http://www.ag-econ.ncsu.edu/faculty/piggott/handbook.htm

Content of my marketing program....

• Handbook comes with
  – supplementary ppts that can be downloaded
  – a database of historical prices for all local markets in NC, SC, and GA 1997-2005
    • users can download spreadsheet
    • can easily tailor examples using “real data”
• Try to integrate it into the “big picture” of risk management...
Content of my risk management program

• For risk management and important statistical concepts and relationships I co-authored another manual that spells out
  – understanding and visualizing risk
  – measuring your risk
  – managing your risk
  – marketing
  – putting it all together

Content of my risk management program....

• During workshops I start with big picture concepts before getting into individual components
  – employ illustrative graphs
  – appeal to real-life examples throughout using real historical numbers

• Spend the rest of my time walking through some of these..
Revenue Risk: Manage $P \times Q$; Not Just $P$, Not Just $Q$.

Revenue = Price $\times$ Quantity = $P \times Q$

Price is a Random Variable

Price ($P$) is a draw from this distribution

$\text{Prob}(P > P^*) > \text{Prob}(P > P^{**})$
Quantity Produced [Harv. Ac × Yield/Ac] is a Random Variable

Actual Production (Q) is a draw from this distribution

Probability Density Function

Range Max Q

Min Q Quantity Q* Q**

Prob(Q＞Q*)＞Prob(Q＞Q**)

Offsetting Effect of P & Q

Price PH PL

PL QL QH

PH QL= PL QH

Quantity
Revenue Uncertainty

Price Uncertainty

Feasible Revenues

Most Likely Revenue

Quantity Uncertainty

Breakeven Revenue

Minimum Revenue

Breakeven Revenue Line

Profit

Loss
Challenge: Making a Profit

Price Risk Management—Locking in a Price ($P_{FC}$) [Forward Contract]

Eliminates Downside Risk for $P$

Eliminates Upside Potential
Price Risk Management—Establishing a Floor ($P^F$)
[Hedging with Futures or Put Option]

Eliminates Downside Risk for $P$

Now $P \geq P^F$ with Prob.$=1$

Price Risk Management: Reduce Likelihood of a Loss

Profit

Price Floor Truncates Price Distribution at $P^F$

Breakeven Revenue Line

Price

$P^F$

$P$

$P^F$

$P^F$

$P^F$

Loss

$PLow$

$P_{High}$

$Q$

Quantity

Revenue Line
Production Risk Management—
Establish Min. Level of Q (Q^m)  
[Crop Insurance APH or CRC]

Eliminates Downside Risk for Q

Now Q^m ≥ Q with Prob.=1

Establish Min. Level of Q (Q^m)  
[Crop Insurance: APH or CRC]

Feasible Revenues

Eliminates Downside Production Risk

Min. Rev.

Max. Rev.
Putting It All Together

Final Remarks

- Marketing is one of the most difficult areas to teach in extension
  - subject that most say is their weakest point

- Easier for yourself and more interesting using innovative ways to teach difficult concepts
  - pepper material with relevant and real life examples (know the markets and trends etc)

- Avoid giving marketing advice at all times
  - invoke the efficient market hypothesis and make no predictions but do appeal to historical behavior
  - focus on current state of affairs and what we have to work with to evaluate options under different scenarios