Risk Management for Trees and Vines and the Agriculture Act of 2014
“Business as Usual”

For
AgInUncertainTimes.FarmManagement.org

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Agricultural Act of 2014: Important implications for trees and vines

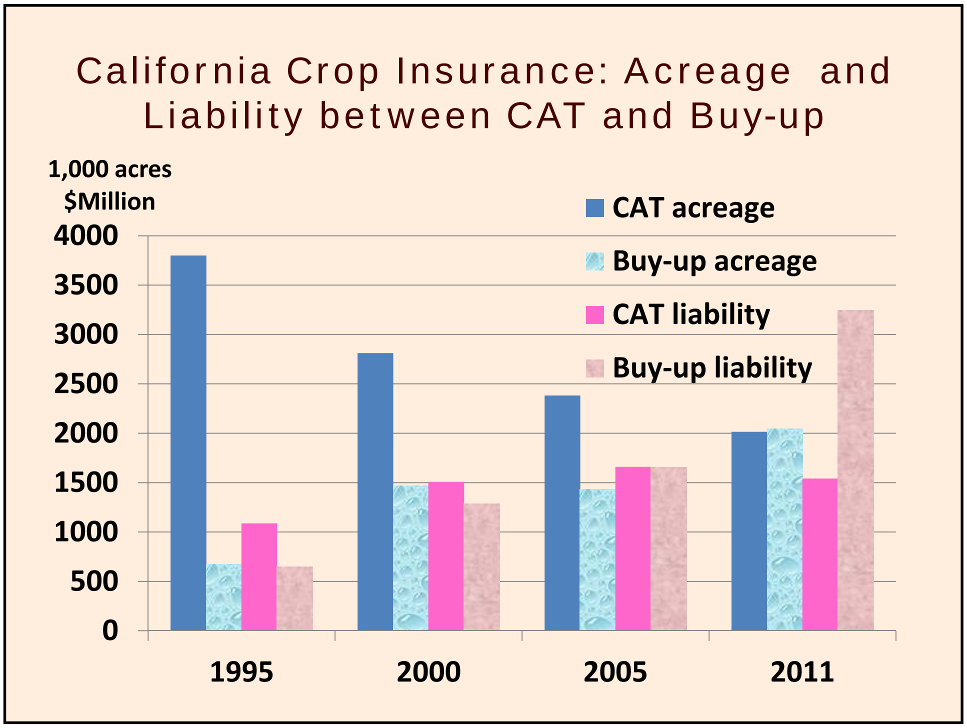
- **Crop insurance benefits will be available for lower losses. Substantial transfer of farm risk to taxpayers.**
- **Crop insurance expands to more crops outlining. Faster in regions with marginal production.**
- **Negative for core traditional regions suited for a crop.**
- **Authorizes increase of $6 B for crop insurance over 10 years. Crop insurance now largest budget of farm programs $90 B**

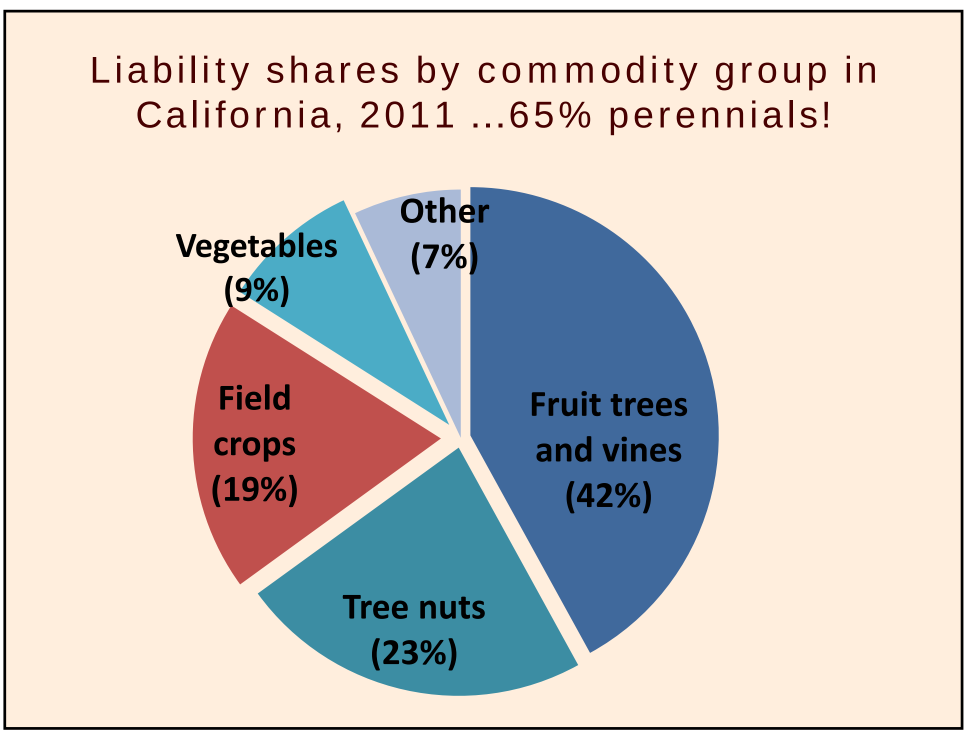
Scope of Crop Insurance for Specialty Crops

- Limited availability until passage of the Federal Crop Insurance Act of 1980
- Now, insurance is available for
  - most perennial fruit and nut crops (including blueberries, cranberries,..)
  - dry beans and peas, fresh beans and peas, fresh market tomatoes and processing tomatoes, mint, mustard, peppers, potatoes, pumpkins, sweet potatoes,
  - Nursery crops
- In 2011, total liabilities for specialty crops (close to $12 billion) account for 10% of total crop insurance liabilities.

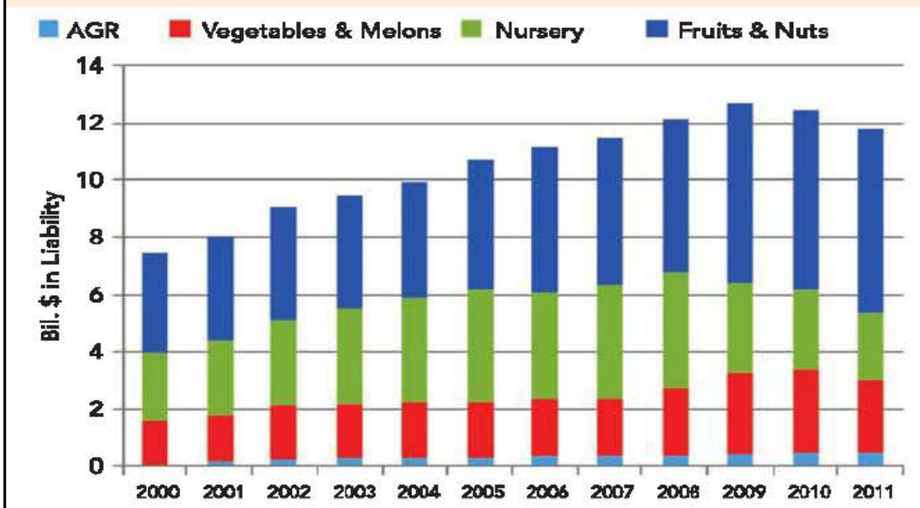
Scope, Continued

- While diverse insurance products exist. But, for specialty crops, yield-based actual production history (APH) is most widely used, with the exception of nursery crops (dollar plan)
- Levels of coverage: catastrophic (CAT) and buy-up
  - CAT: insures 50 percent of yield at 55 percent of USDA-announced price at a nominal processing fee.
  - BUY-UP: additional coverage up to 85 percent of production per acre, with the value up to 100 percent of a USDA price that is set referenced to a specified market price established for each crop and region, and 62% of premiums are subsidized.


California Crop Insurance: Acreage and Liability between CAT and Buy-up
1,000 acres
$Million
4000
3500
3000
2500
2000
1500
1000
500
0
1995
2000
2005
2011
CAT acreage
Buy-up acreage
CAT liability
Buy-up liability


Liability shares by commodity group in California, 2011 ...65% perennials!
Other (7%)
Vegetables (9%)
Field crops (19%)
Fruit trees and vines (42%)
Tree nuts (23%)

Insured liability for specialty crops for the United States: About half perennials



Source: Keith Collins, “Crop Insurance & Specialty Crops,” *Crop Insurance Today, August 2012*

Changes in Crop Insurance Policy Specific to Specialty Crops

- Allows RMA to conduct research and development of improved risk management tools for underserved crops, such as specialty crops, and regions.
- Federal Crop Insurance Corporation (FCIC) to study the feasibility of insuring specialty crop producers for food safety and contamination-related losses.
- Pretty thin soup.

Crop insurance for Organics (lots of trees and vines)

- Risk Management Agency is now required to expand **price elections** for organic crops by 2015
- RMA is told to try to develop and improve **federal crop insurance for organic crops**:
  1. **Expand the Number and varieties** of organic crops
  2. Get **price elections improved to attract more organics**
- But CBO scores these as costing just about nothing! So how significant can they be?

Consider Risk Management from Crop Insurance for Fresh Produce

Consider an illustrative case for produce industry impacts of disruptions

Monterey County California

The total farm value of production in 2012 was $4.2 billion.

- Fresh produce crops account for 80% of County farm revenue.
- The Salinas Valley, the site of most of the agricultural activities in the county, contributes close to 70 percent of the county's agricultural output value.

Monterey County Ag Market Value, 2012

	Value ($Mil)	% of total
TOTAL	**$4,138**	
Vegetable Crops	$2,691	65
Fruit	$1,058	26
Other	$389	9
Monterey County Top 15 Crops by Value		
Leaf Lettuce	**$794**	**19**
Strawberry	**$785**	**19**
Head Lettuce	**$476**	**12**
Broccoli	**$316**	**8**
Nursery	**$308**	**7**
Wine Grapes	**$214**	**5**
Celery	**$193**	**5**

Vulnerability of Monterey to seismic disruption

- Monterey County is located on active fault lines (red lines in figure)
- For most farm output immediate post-harvest handling and cooling is essential.
- Even a day of disruption to transport or cooling destroys crop value

Figure 2.2. Monterey County Major Fault lines MTYcounty.com http://www.mtycounty.com/pgs-misc/faultlines.html

Share (%) of Salinas Area Shipments in National Supply, by Month

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Leaf Lettuce										
	1%	43%	93%	94%	95%	94%	93%	88%	27%	0%
Strawberries										
	0%	5%	31%	71%	80%	83%	81%	48%	12%	0%
Head Lettuce										
	0%	37%	86%	86%	86%	86%	87%	60%	4%	0%

Suppliers other than Salinas Valley include other California, Arizona, and Florida

Calculation of Potential Economic Losses: Example of Salinas Valley

Important considerations

- Damage depends on season. Produce losses larger in the peak season, simply because more production is affected
- However, because large share of the national market is hit production losses cause higher market prices those producers that still have product available.
- The higher market price dampens and can even reverse countywide losses to producers and the local economy.
- Economic losses for affected farms and firms could be significant, but with less disruption may gain revenue from high prices.
- Net revenue losses include higher costs (not accounted for yet) from adapting to disruption.

Potential Losses for Monterey Producers, One week disruption, June (peak) and November (off season)

		Market quantity after damage (1,000)	Unit price after damage ($)	Revenue change Salinas producers ($ 1,000)	Revenue change other producers ($1,000)		Market quantity after damage (1,000)	Unit price after damage ($)	Revenue change Salinas producers ($1,000)	Revenue change for the rest of producers ($1,000)
		Week of June					Week of November			
Leaf lettuce										
	25% loss	1,042	12.7	113	266		1,420	10.3	-2,457	2,703
Strawberries										
	25% loss	23	2,353	-3,258	2,555		5	1,968	-1,919	1,930
Head lettuce										
	25% loss	967	13.2	-164	544		1,086	10.2	-2,285	2,317
Units for quantity: cartons for lettuce and tons for strawberries										

How would crop insurance help in this typical situation?

Important considerations

- No "yield" loss. Would crop insurance apply
- Little "annual" or "season" supply change
- Very short run disruption could cause significant revenue and profit loss for some producers
- Price gain in the peak season
- Prices change daily ... Weekly USDA price reports.
- Moral hazard on effort to market in the face of disruption

Hard to see how to get government insurance to work. Perhaps private liability or business interruption insurance applies.

Broader lessons from the economic considerations?

The whole point of expanding crop insurance availability is to improve the competitive position allowing expansion of crops where they do not now grow!

Commercial impacts raise interesting issues for size and location of industries.

If supply patterns do not change that means the spread of insurance simply creates rents for producers and insurance companies. Money is distributed with no change in behavior simply means the money is a pure transfer.

Who wins and who loses (other than taxpayers)?

So, effects of crop insurance availability on crop supply is important.

- Rate of expected subsidy depends on ability to actively rate for premiums. Subsidy is about 80% in any case given payment of admin costs and reinsurance.
- Could be higher is rating accurately is difficult in outlying areas.

Broader lessons and economic considerations?

If supply adjustments and additional production is significant:

Major regions with perennial crop industries may be losers from spreading insurance to marginal areas.

- Encouraging more trees and vines completes with the well-established areas that would not use insurance much
- California will be a loser for most tree and vine crops
- Washington would be a loser for apples
- Most other regions would gain
- These gains and losses would play out over many years as new acreage comes on line
- Price variability would be increased and crops could be riskier than now.

Final remarkets

From the inside there are lots changes in specific programs and subsidy rules.

Risk management continues its heightened role as security remains high on the agenda.

From a broader perspective,

- food stamps still get the big bucks
- the same handful of commodities still get the bulk of subsidies directly or through barriers and other regulation
- Still relatively little attention to R&D and innovation
- Farm bill is still not the main farm law for most of agriculture
- EPA, immigration, international trade, tax law, financial regulation, etc. are all more important and state and local law and regulations are more important than federal