



Crop Insurance

Presented by Greg Merrill, AFIS, CIC





Why Crop Insurance?

What's in it for the insured?

▶ Financial security

- Protection against yield losses due to weather/wildlife
 - Average Production History
- Protection against revenue and market price losses due to weather/wildlife
 - Whole Farm Revenue Protection
- Continue operating after a disaster

▶ Ability to attain ag financing

▶ Additional tax write-off



Crop Insurance 411

A brief overview

- ▶ Began in 1980
 - Farm Bill
- ▶ USDA regulates
 - Risk Management Agency releases program rates and rules
 - Insurance companies underwrite
 - Insurance agents sell the policies
- ▶ Coverage is based off individual growers production and contract price if available



Crop Insurance 411

Multiperil Crop Insurance – Average Production History

- ▶ Growers select to insure a percentage of their average yield, ranging from 50% - 85% in 5% increments
- ▶ All premiums are subsidized by the federal government, there is a \$30 administrative fee per variety, in addition to the premium.

Item	Percent							
Coverage Level	50	55	60	65	70	75	80	85
Premium Subsidy	67	64	64	59	59	55	48	38
Your Premium Share	33	36	36	41	41	45	52	62

- ▶ Catastrophic (CAT) coverage is available by variety and the premium is 100% subsidized
 - Grower pays a \$300 administrative fee per variety
 - CAT insures 50% of the average yield at 55% of the established insurance price per ton



Crop Insurance 411

California Statistics

▶ In 2017

- Approximately 599,000 total wine grape acres
- 467,867 acres insured
- \$1,290,714,946 in liability
- \$36,757,359 in losses paid

▶ In 2018

- Approximately 599,000 total wine grape acres
- 452,790 acres insured
- \$1,342,810,871 in liability
- Losses still TBD



Crop Insurance 411

Lake County Statistics

▶ In 2017

- Approximately 9,400 total wine grape acres
- 5,759 acres insured
- \$23,671,547 in liability
- \$1,063,907 in losses paid

▶ In 2018

- Approximately 9,400 total wine grape acres
- 5,956 acres insured
- \$26,671,547 in liability
- Losses still TBD



Crop Insurance 411

Policy example

► Insurance guarantee

- Average tons/acre 4
- Insurable acres x 100
- Coverage level x 75%
- Share x 100%
- Guarantee 300 tons

► Liability = Insurance guarantee x price

- Each variety will a separate liability amount
- In some cases, varieties of the same type in different locations can have separate liability amounts and claims can be assessed separately (optional unit structure)



Crop Insurance 411

Policy example

- ▶ Cabernet Sauvignon grown in Lake Co.
 - Established insurance price: \$2,170 per ton
 - Growers contracted price: \$2,500 per ton
- ▶ Average yield – 400 tons
- ▶ Grower selects 75% buy-up coverage
 - $400 \times 75\% = 300$
- ▶ 300 tons guaranteed
- ▶ Premium
 - Base premium: \$24,145
 - Growers portion: \$10,865 (plus \$30 administrative fee)



Crop Insurance 411

Policy example

- ▶ Unexpected weather event occurs
- ▶ 200 tons harvested

300 tons guaranteed

-200 tons harvested

100 ton deficiency

X \$2,500 contract price

\$250,000 claim payment



Crop Insurance 411

Additional information

- ▶ Appraised fruit production
- ▶ Harvest cost: \$200 per ton
- ▶ Quality adjustments (smoke taint)
 - *Mature marketable grape production that is damaged by insured causes is eligible for quality adjustment if such damaged production has a value of less than 75 percent of the average market price of undamaged grapes of the same or similar variety.*



Smoke Taint

How smoke taint is covered

- ▶ Must meet claim reporting requirements (within 72 hours of loss or notice of damage and no later than 60 days after harvest)
- ▶ Must enlist the service of an independent and certified laboratory to conduct a test of the crop **before** the crop is harvested
 - Tested samples should be a minimum of 200 berries
- ▶ Testing must be for the two most common chemical markers of smoke – Guaiacol (G) and 4-Methylguaiacol (4MG)
- ▶ Elevated levels for **both** chemicals must be present
- ▶ Lower revenue **must** be due to smoke taint and not other market conditions
- ▶ Do not commingle fruit or juice with another growers production



Smoke Taint

Quality Adjustment Calculation

- ▶ Step 1: Determine value of damaged grapes (sold and unsold)
- ▶ Step 2: Determine value of undamaged grapes using the lessor of:
 - Average market price per ton
 - Maximum established price/contracted price per ton
- ▶ Step 3: Divide sum of step 1 by sum of step 2
 - If value is less than 75% multiply that factor/percentage by the number of tons of damaged grapes
 - If value is greater than 75%, no reduction in price to damaged production



Smoke Taint

Quality Adjustment Calculation

- ▶ Value of damaged grapes (sold and unsold)
 - \$1,200 per ton
- ▶ Value of undamaged grapes
 - Average market price per ton: \$2,400
 - Established price per ton: \$2,170
 - Contracted price per ton: \$2,250
- ▶ $\$1,200 / \$2,170 = 0.552$ (55.2% factor)
- ▶ 200 tons damaged X 55.2% = 110.4 tons counted toward harvested production
- ▶ Grower is paid the difference in their harvested production and their insurance guarantee



Questions?

