The Gulf Oyster Industry Council
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Oyster Insurance Program

Executive Summary

A crop insurance program developed by:
Crop Insurance Systems, Inc.

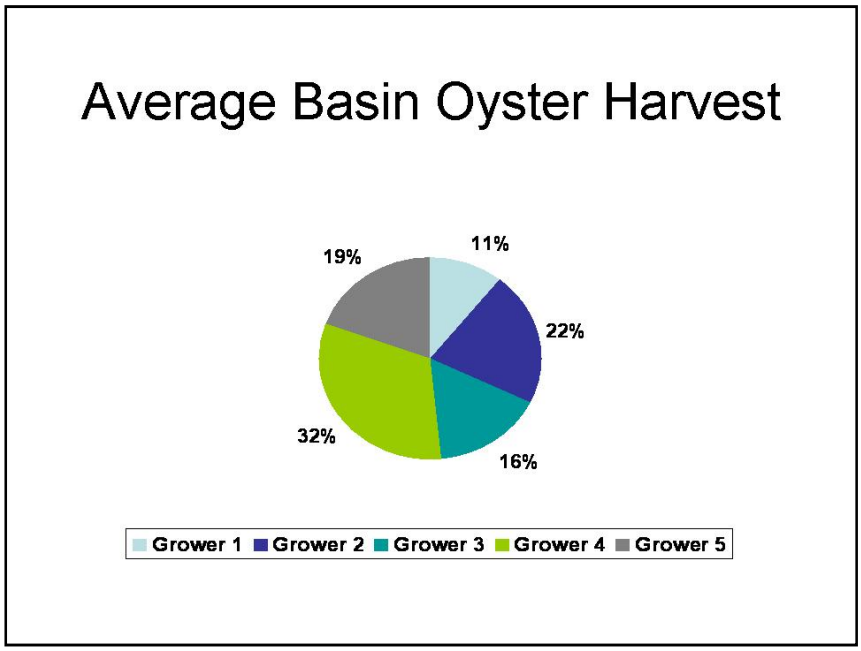
Background

The oyster insurance program is a group risk insurance plan similar to group risk plans available to producers of other agricultural commodities. Like other group risk plans, the oyster insurance program uses an index to represent the harvest of oysters for each oyster farmer. In the case of oysters, the index is based on the total number of pounds of oysters harvested from a water basin. Oyster producers can purchase an insurance guarantee that the oyster harvest from a basin will be at least 90% of the expected oyster harvest. Growers can select a guarantee as low as 65% of the basin average.

The amount of insurance

Oysters presented a unique challenge to developing the insurance guarantee. The acreage of the crop planted, a commonly used measure to establish the amount of insurance, cannot readily be measured. To solve this problem, the oyster program apportions the average basin oyster harvest to oyster producers in proportion to their contribution to the average.

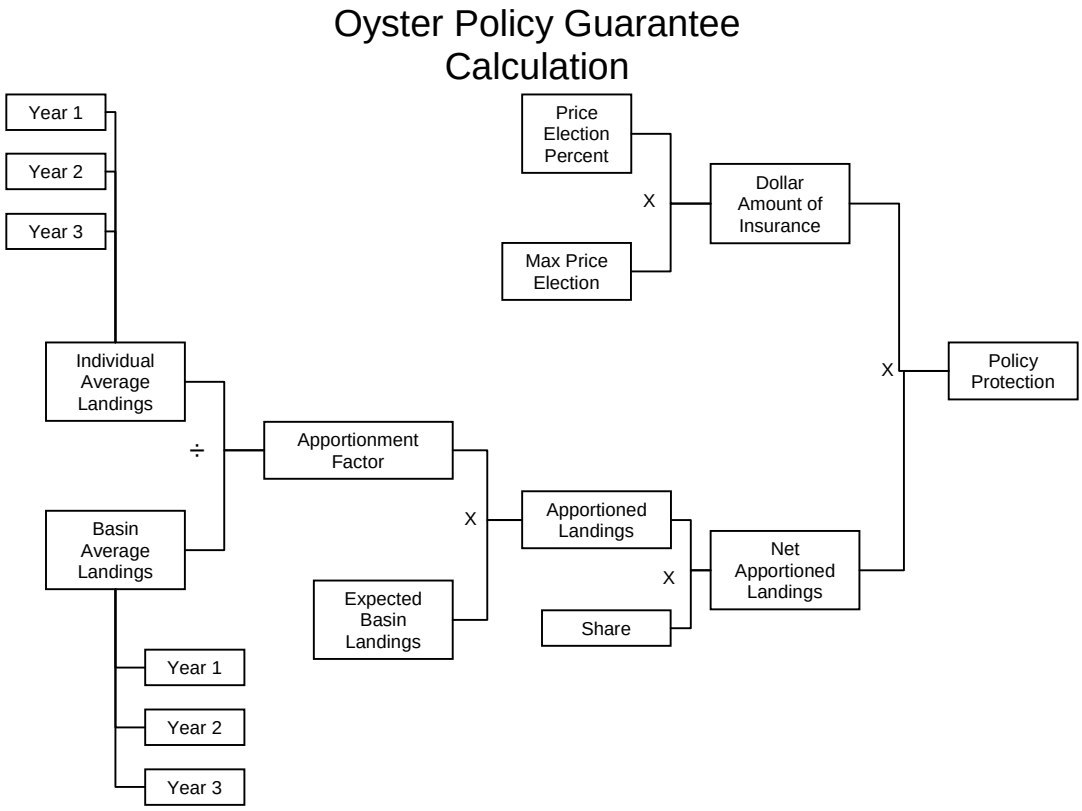
To illustrate this idea, consider the circle in Figure 1 as representing a basin's average harvest. Each segment of the circle represents the relative contribution of a grower to the basin average harvest.



The oyster insurance program creates the amount of insurance each producer may purchase using simple apportionment. In this example, Grower 1 may purchase insurance equal to 11% of the basin average harvest, Grower 2 may purchase 22%, Grower 3 may purchase 16% and so on.

A more comprehensive view of the precise mechanism to establish the insurance guarantee is described in Figure 2 below.

Figure 2



Three years of the individual oyster farmer's landings are divided by the same three years of basin total landings to create an *Apportionment Factor*. The *Apportionment Factor* is multiplied by the *Expected Basin Landings* to arrive at the oyster producer's *Apportioned Landings*. The *Apportioned Landings* are multiplied by oyster grower's interest (*Share*) in the crop. The result is the *Net Apportioned Landings.*

Oysters, of course, have a monetary value. In this insurance program, that value is expressed as the *Maximum Price Election*. A grower may purchase up to 100% of the *Maximum Price Election*. The *Maximum Price Election* multiplied by the *Price Election Percent* selected by the producer results in the *Dollar Price Election*.

The policyholder's *Policy Protection* is the result of multiplying the *Dollar Price Election by Net Apportioned Landings.*

When and to what degree has a loss occurred?

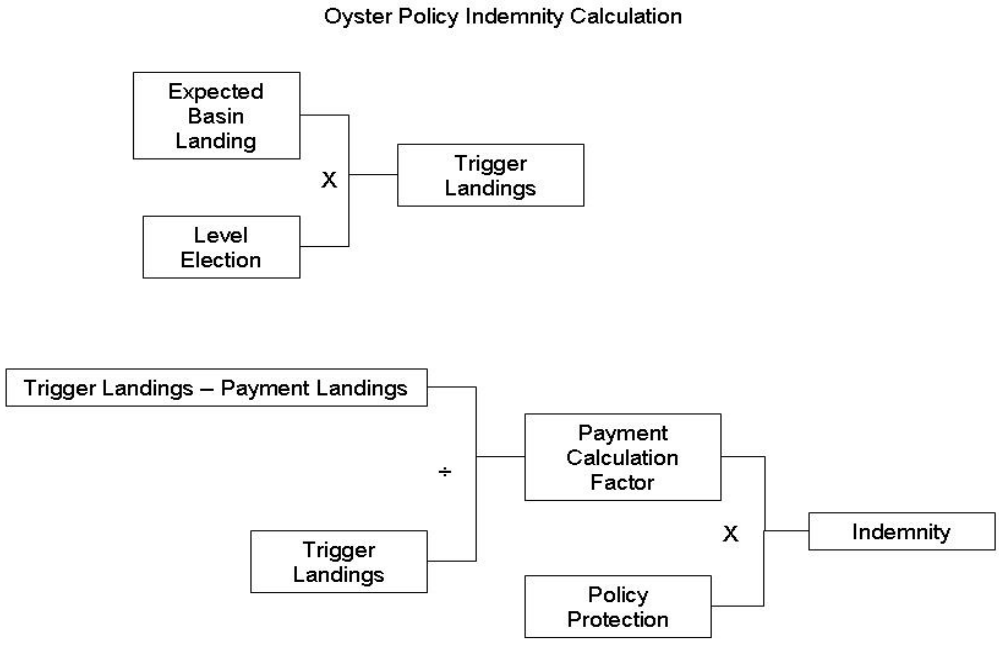
The oyster insurance program uses three keys to determine when an insured oyster producer is due an indemnity and how much that indemnity should be.

First, the program establishes the expected oyster production or "landings" for a Basin. This is the basin *Expected Landings*. *Expected Landings* are updated annually to keep them current but because of program timing, there is a one year lag in the landings.

Secondly, when an oyster producer elects to insure their oyster production, they select a coverage level ranging from 90% down to 65% of the *Expected Landings*. The *Level Election* the oyster producer selects is multiplied by the *Expected Landings*. The result is the *Trigger Landings*.

Thirdly, the total pounds of oysters harvested during the insurance period, the *Payment Landings,* is determined from the records of oyster landings kept by the appropriate State agency. If the *Payment Landings* are less than the *Trigger Landings*, an indemnity will be paid to each insured oyster producer in the basin.

Figure 3

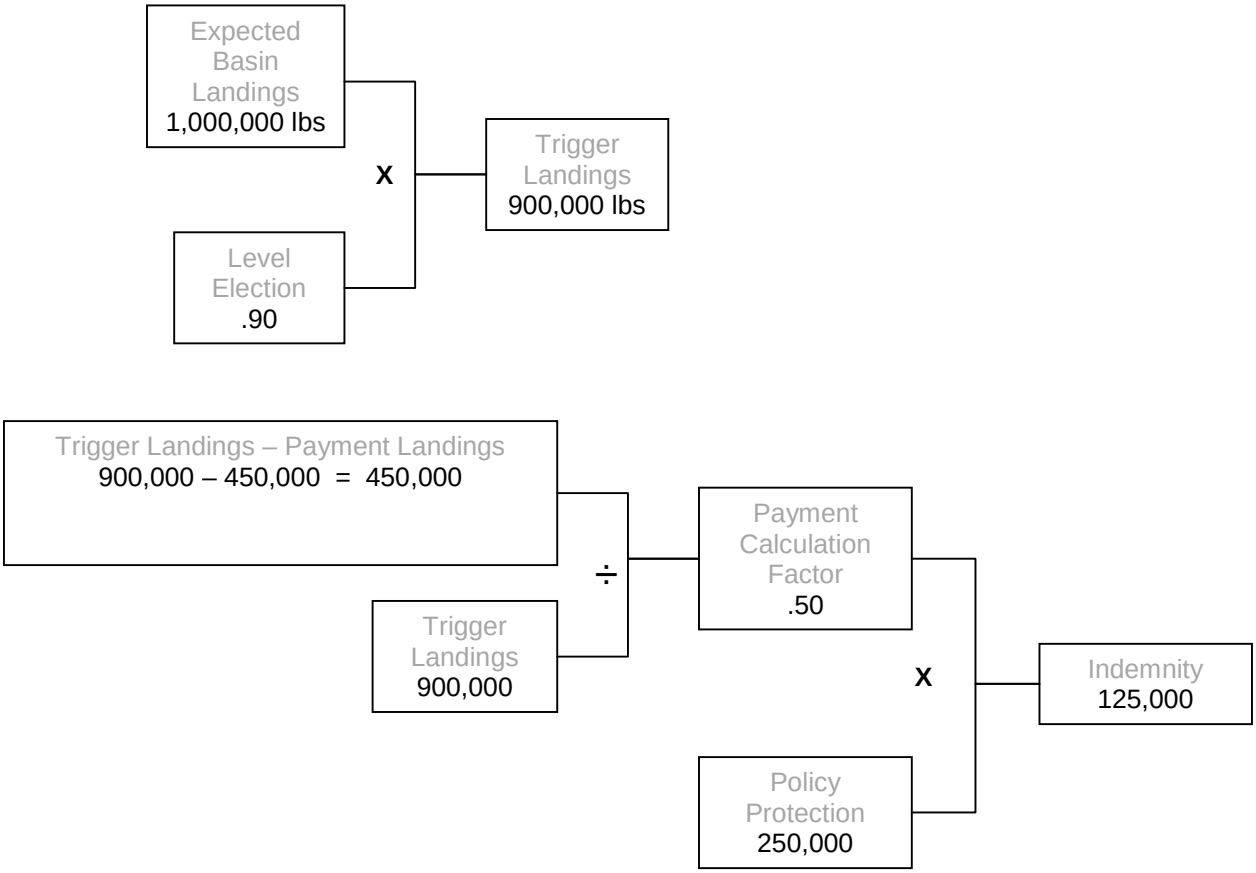


As an example of how the indemnity payment is determined, assume the following:

- Basin A has an *Expected Landings* of 1,000,000 pounds of oysters.
- Policyholder Doe elected 90% *Coverage Level* therefore the *Trigger Landings* equals 90% of 1,000,000 or 900,000 pounds.
- *Payment Landings* for the basin equals 450,000 lbs.
- Policyholder Doe's *Policy Protection* is $250,000.

Figure 4

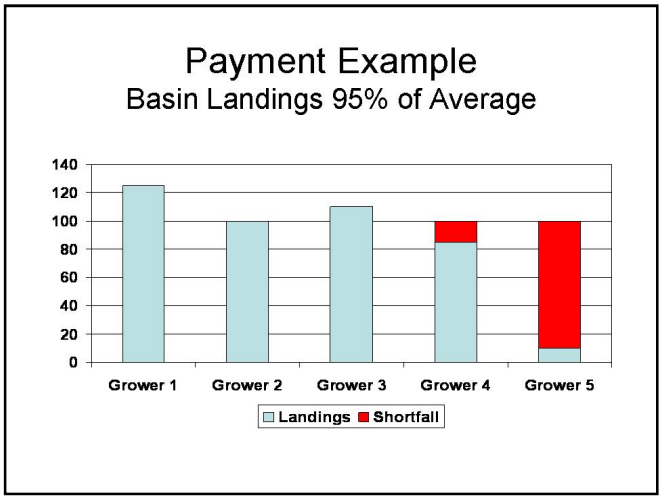
Oyster Policy Indemnity Example



Payment Landings are 50% of the *Trigger Landings* therefore Policyholder Doe receives 50% of the *Policy Protection* or $125,000. It is important to remember, determinations of when a loss occurs and the magnitude of loss are made at the Basin level. The determination applies equally to every policyholder in the Basin.

Drawbacks

Figure 5



The insurance design guarantees the basin will achieve a minimum harvest. The program provides no individual assurance of an oyster harvest. An oyster farmer can have a low harvest and not receive an indemnity payment if the *Payment Landings* are above the *Trigger Landings* elected.

For example, the chart at the right illustrates the experience of five growers in a basin with a near average harvest. For the insurance period, basin landings are 95% of the *Expected Landings*. Growers 1, 2 and 3 had average or better harvests. Grower 4's harvest was below average and grower 5 suffered a severe loss. Because the *Payment Landing* is higher than any deductible (*Trigger Landing*) available, there will be no insurance payment for grower 4 or 5 even though grower 5 suffered a severe loss.

While interviewing oyster farmers during the research phase of program development, some oyster farmers expressed a desire for individual insurance coverage. A number of helpful resources gave us ideas on ways to individualize the oyster insurance. However, at the outset of this program CIS identified the lack of any financial protection for oyster growers as a critical need requiring rapid resolution. Individual coverage would be a more difficult program to assemble. Of the programs analyzed, a group risk program seemed most likely to meet the goal of rapid development.

The oyster insurance program provides reasonable protection against losses that are general in nature. Because the program operates on an index, the incidence of moral hazard[1] is in sharply reduced if not eliminated.

Oyster farmers in Louisiana understand the program's operation and limitations and both are acceptable to them.

[1] Moral hazard occurs when individuals have the opportunity to defraud the insurance company by claiming indemnities when none are due. The indexed program virtually eliminates this hazard.