

Integrating Crop Insurance and Marketing Plans

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Two Different “Schools of Thought”

- Crop marketing plans and crop insurance choices are two separate decisions and are not connected.
- Crop marketing plans and crop insurance choices must be coordinated to develop appropriate risk management plans.



Which is right?



**Which bushels does crop
insurance cover?**



**Which bushels does a
marketing plan cover?**

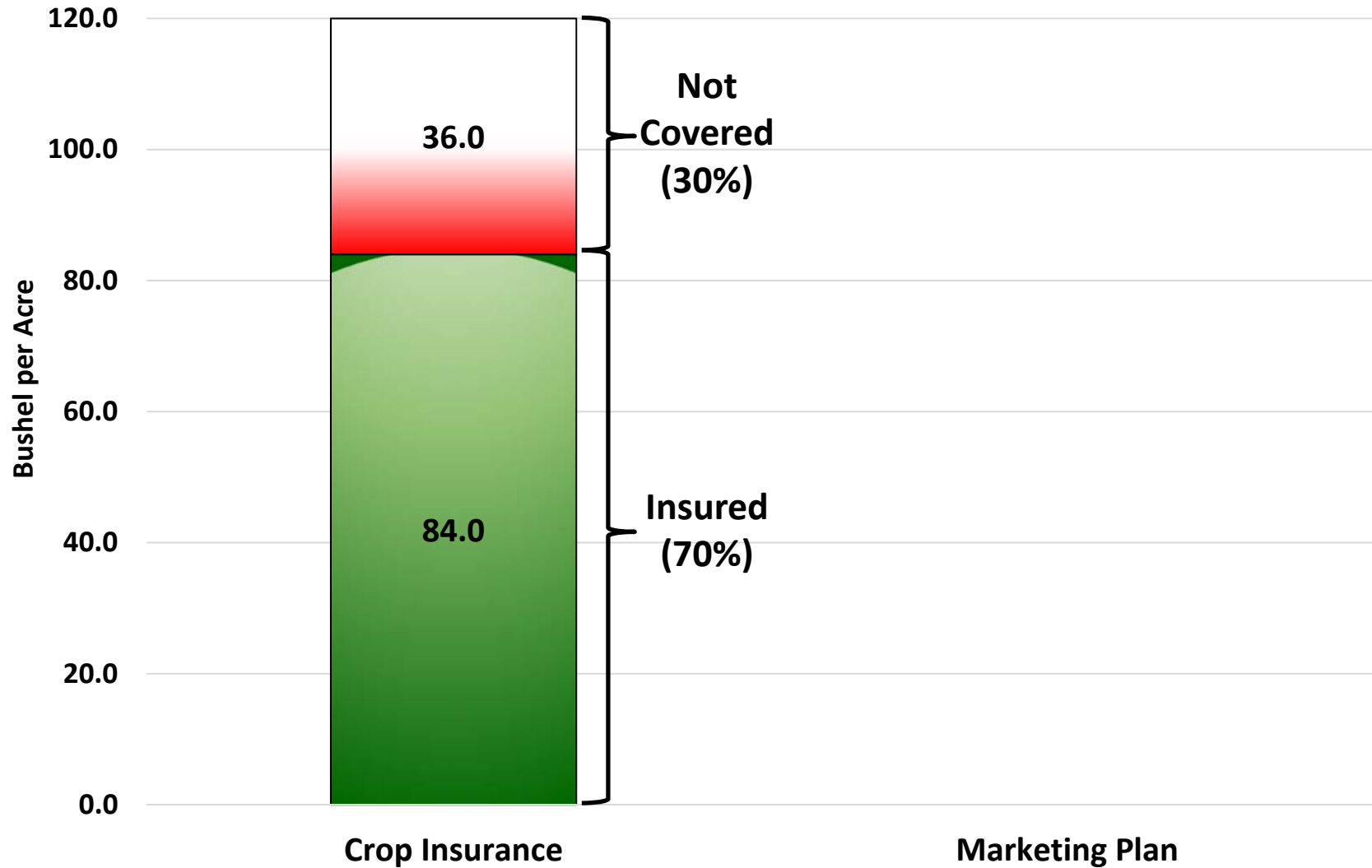


**Assume 120 bu./a. APH and
70% Yield Coverage**



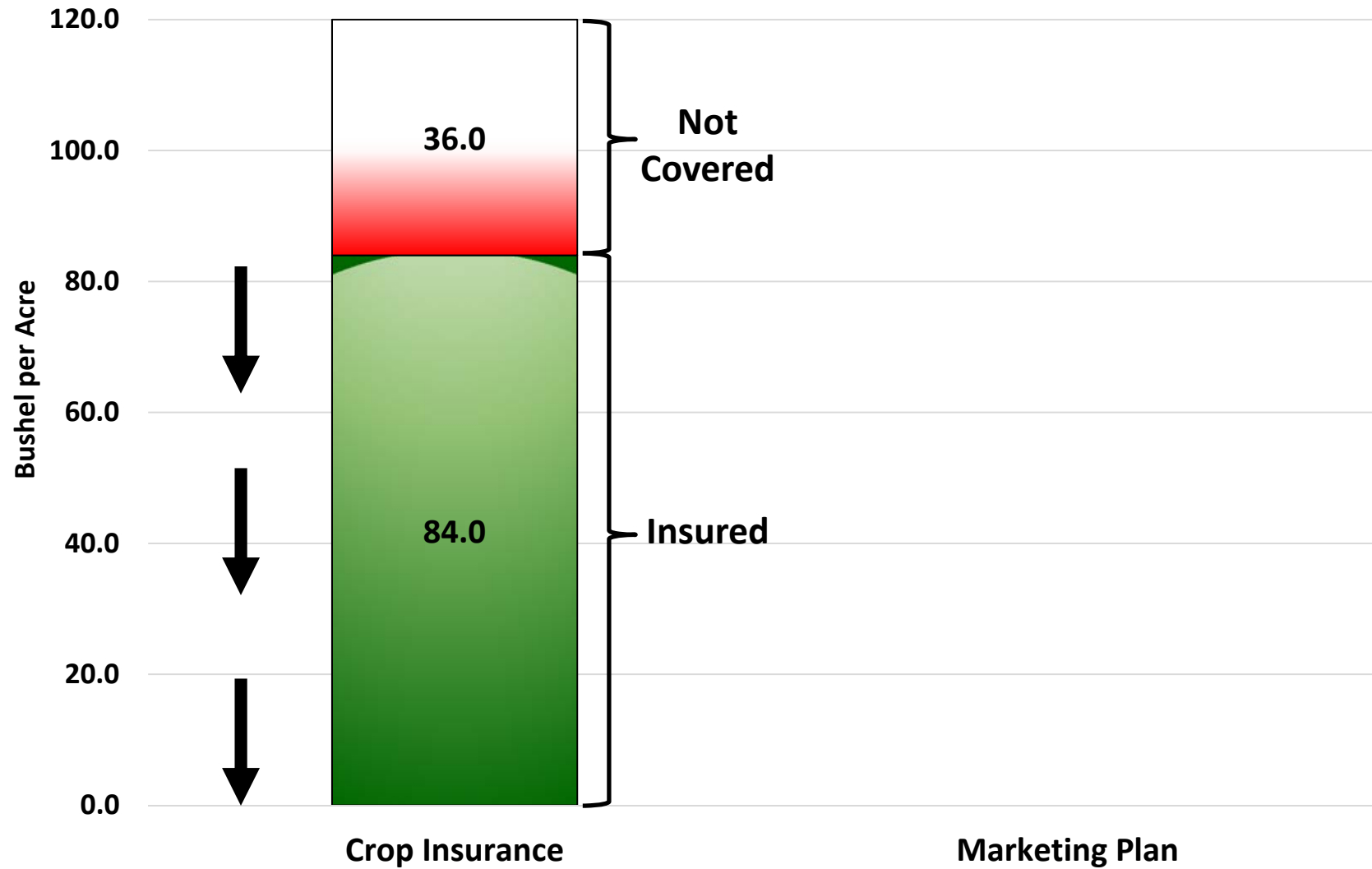
Which bushels are covered?

70 % Yield Insurance



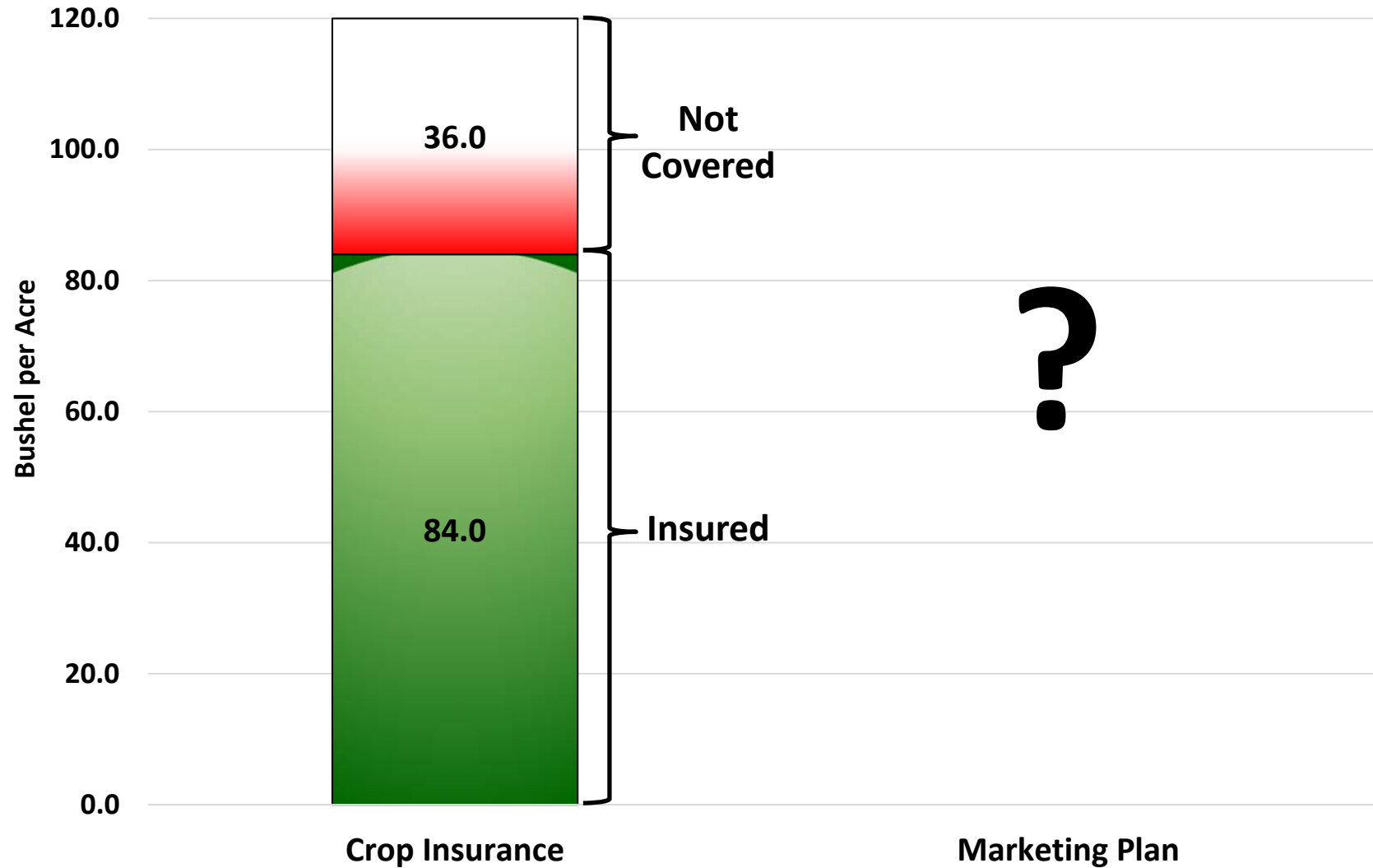
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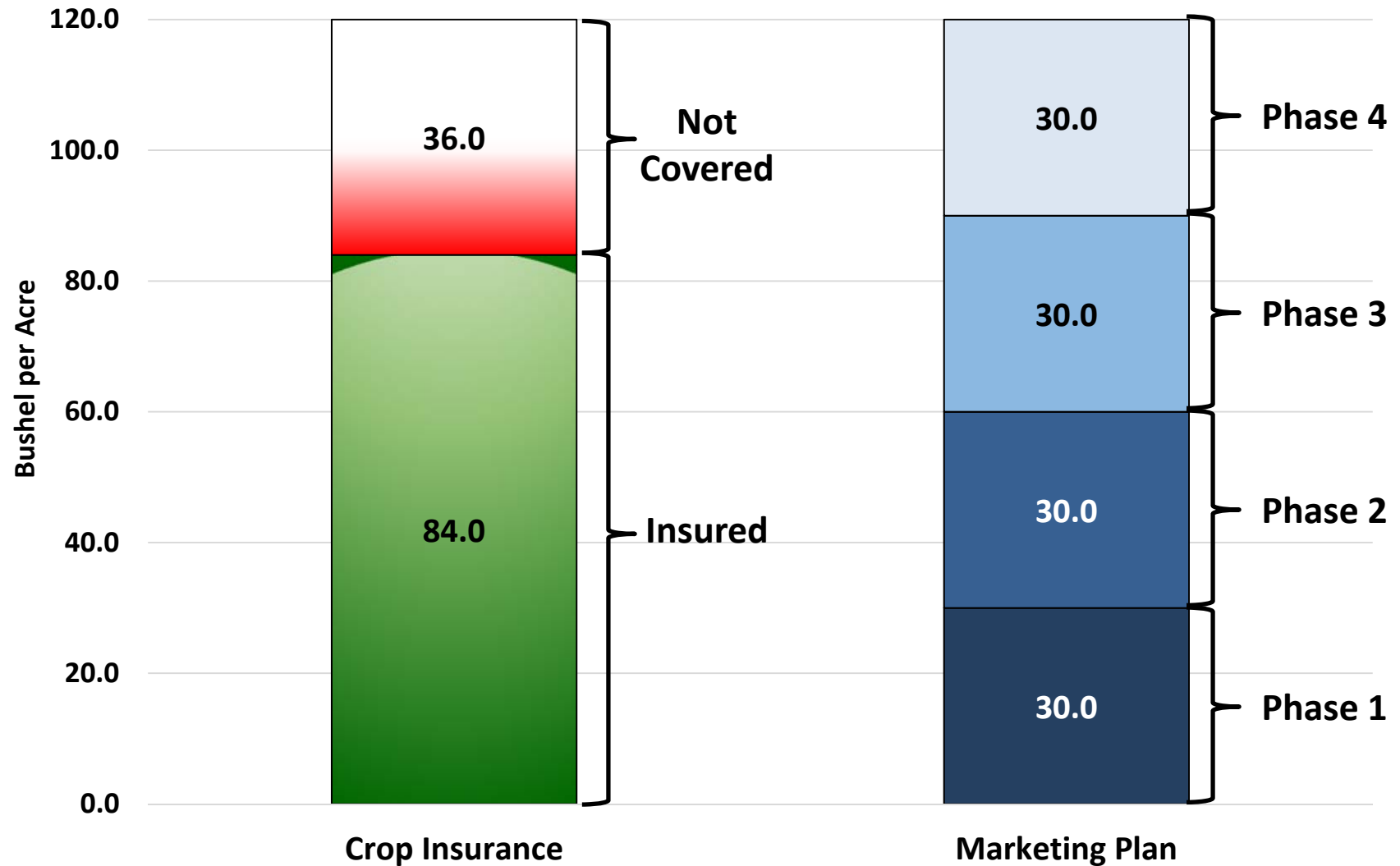
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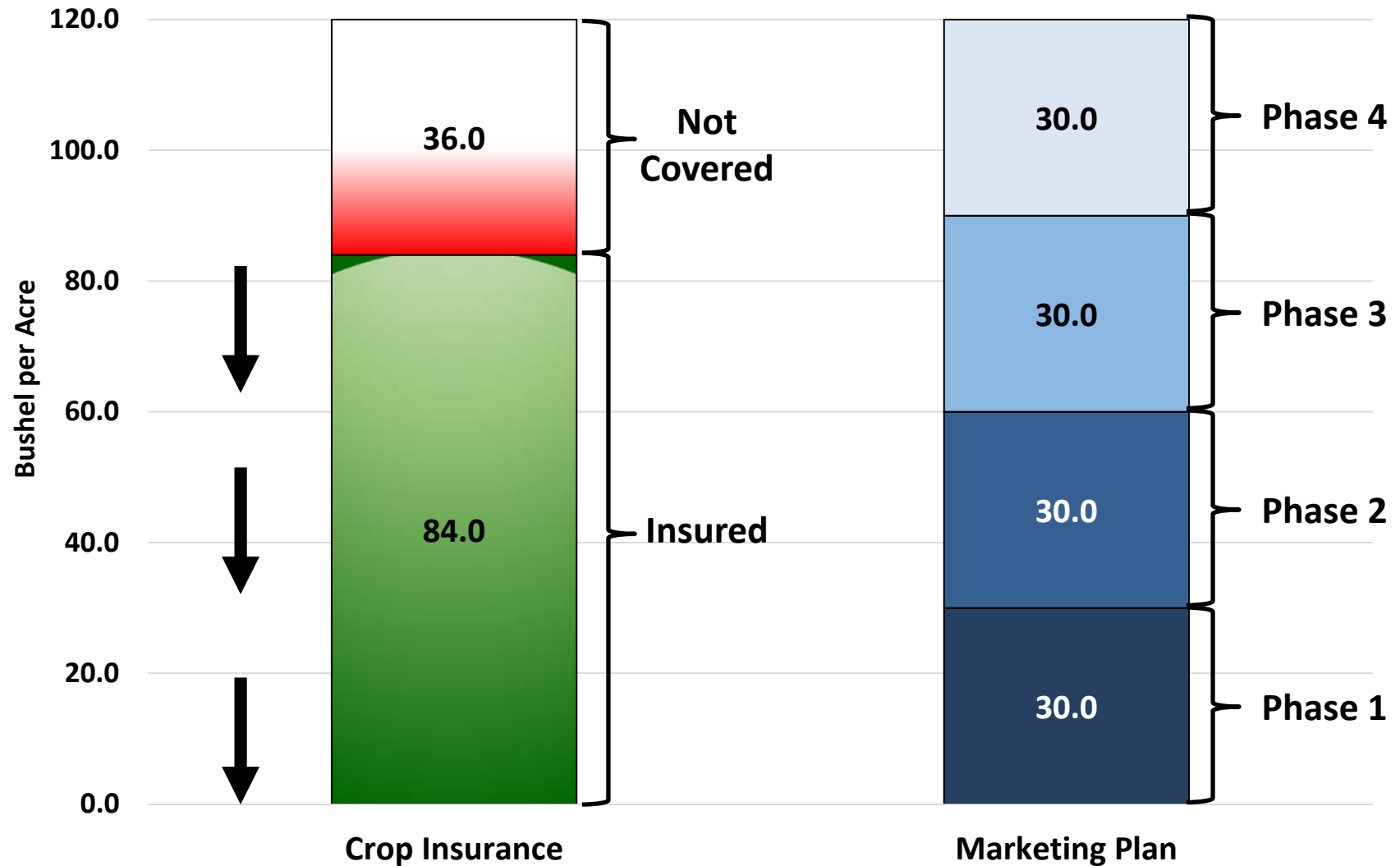
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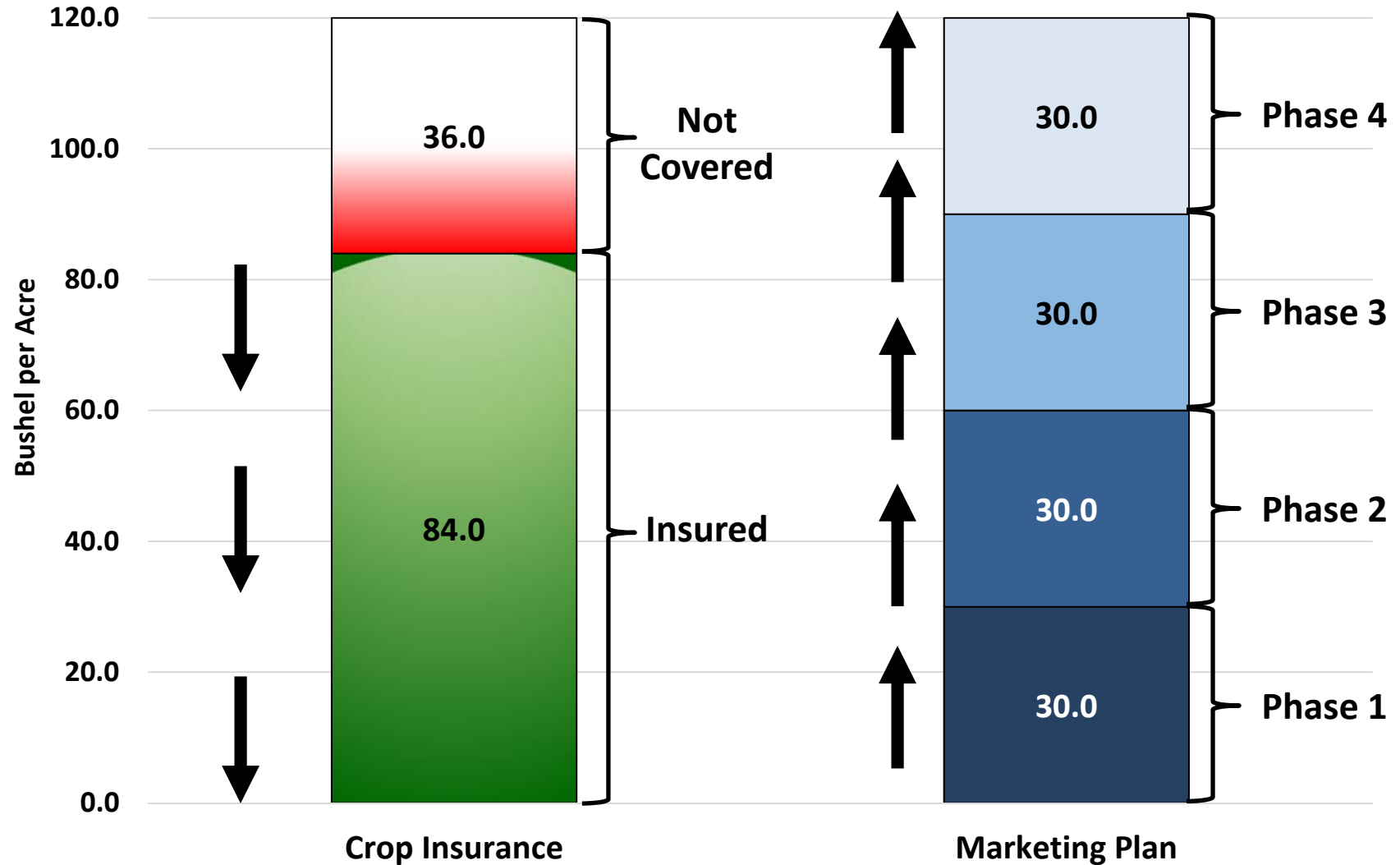
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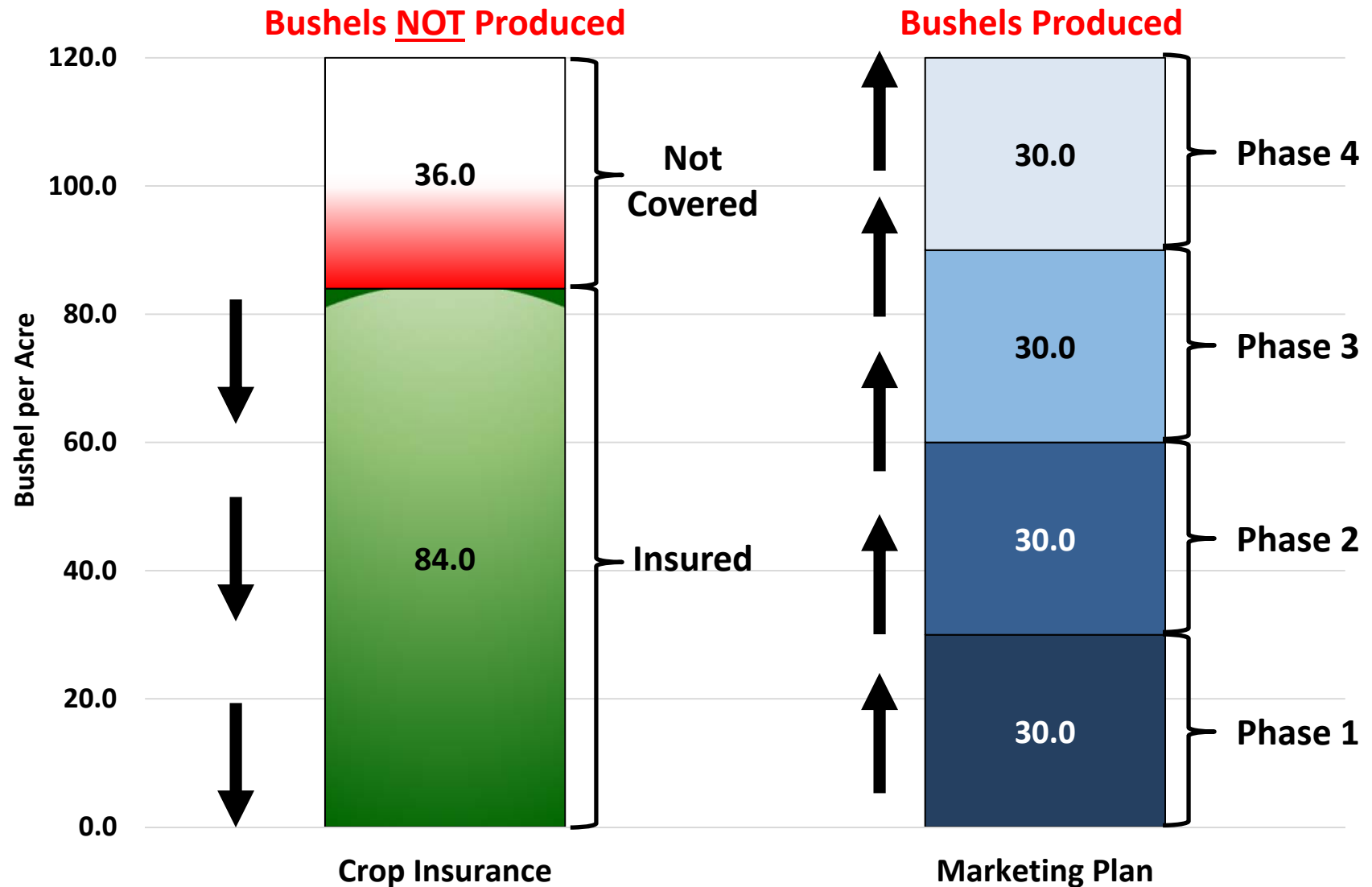
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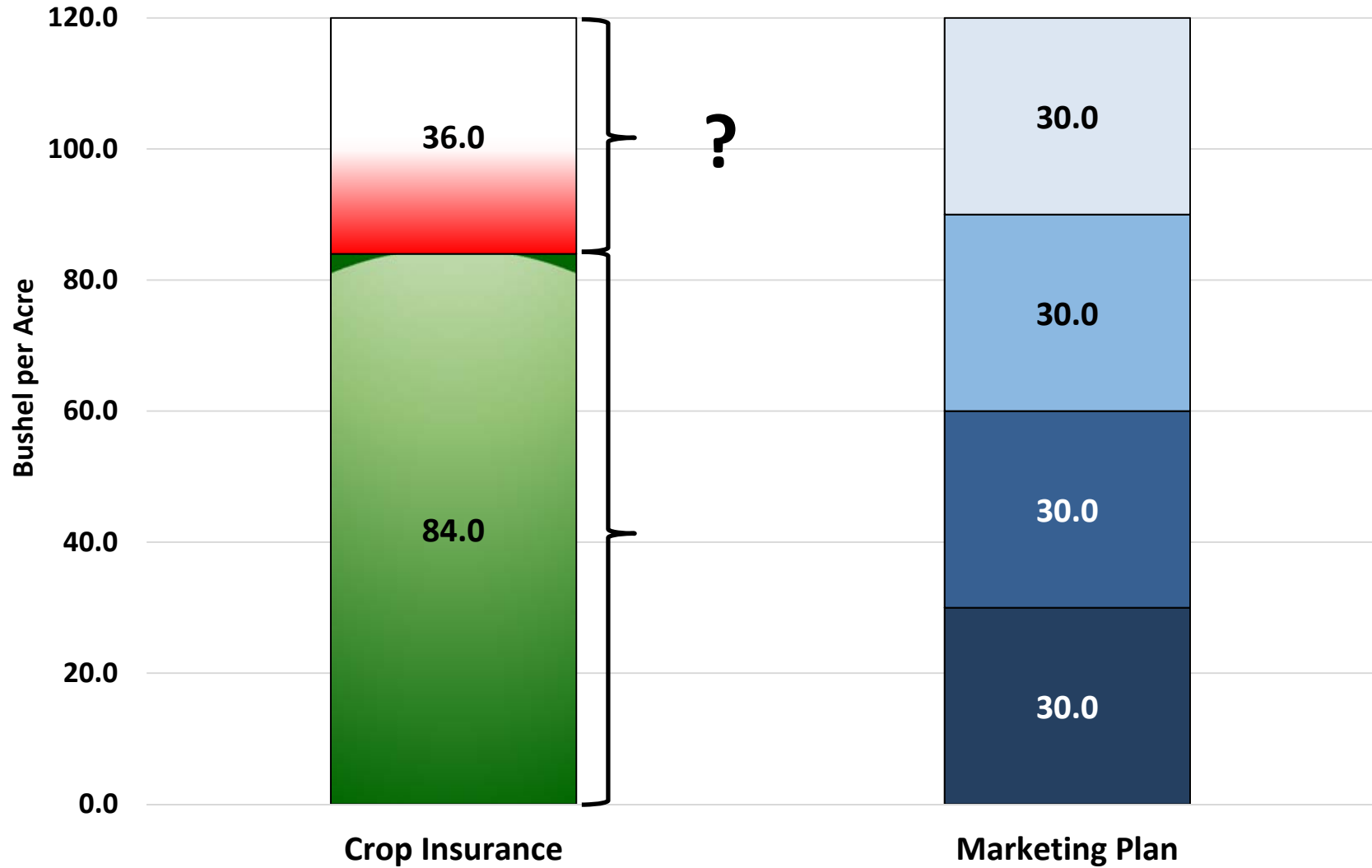


**How are these bushels
priced?**



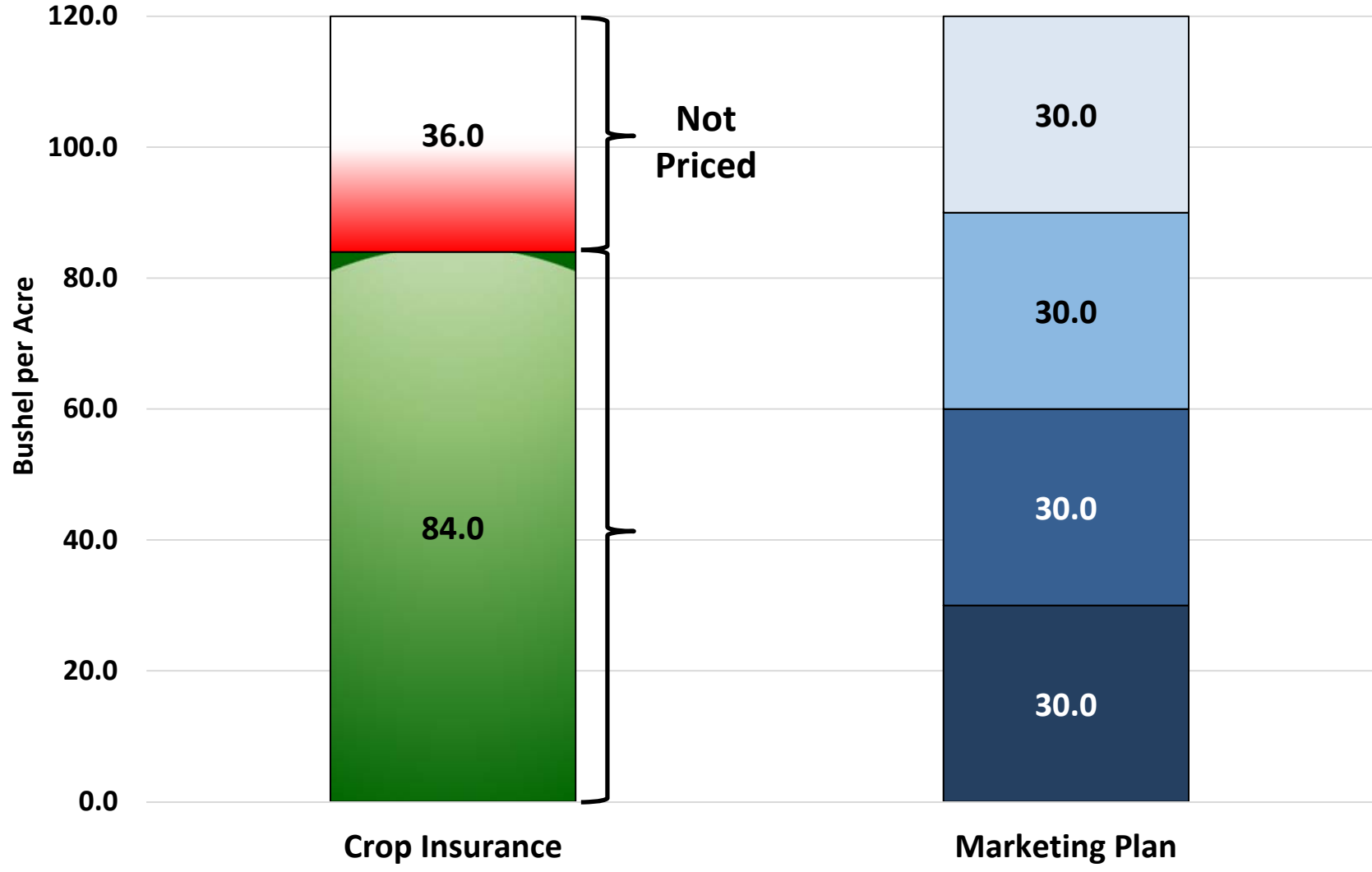
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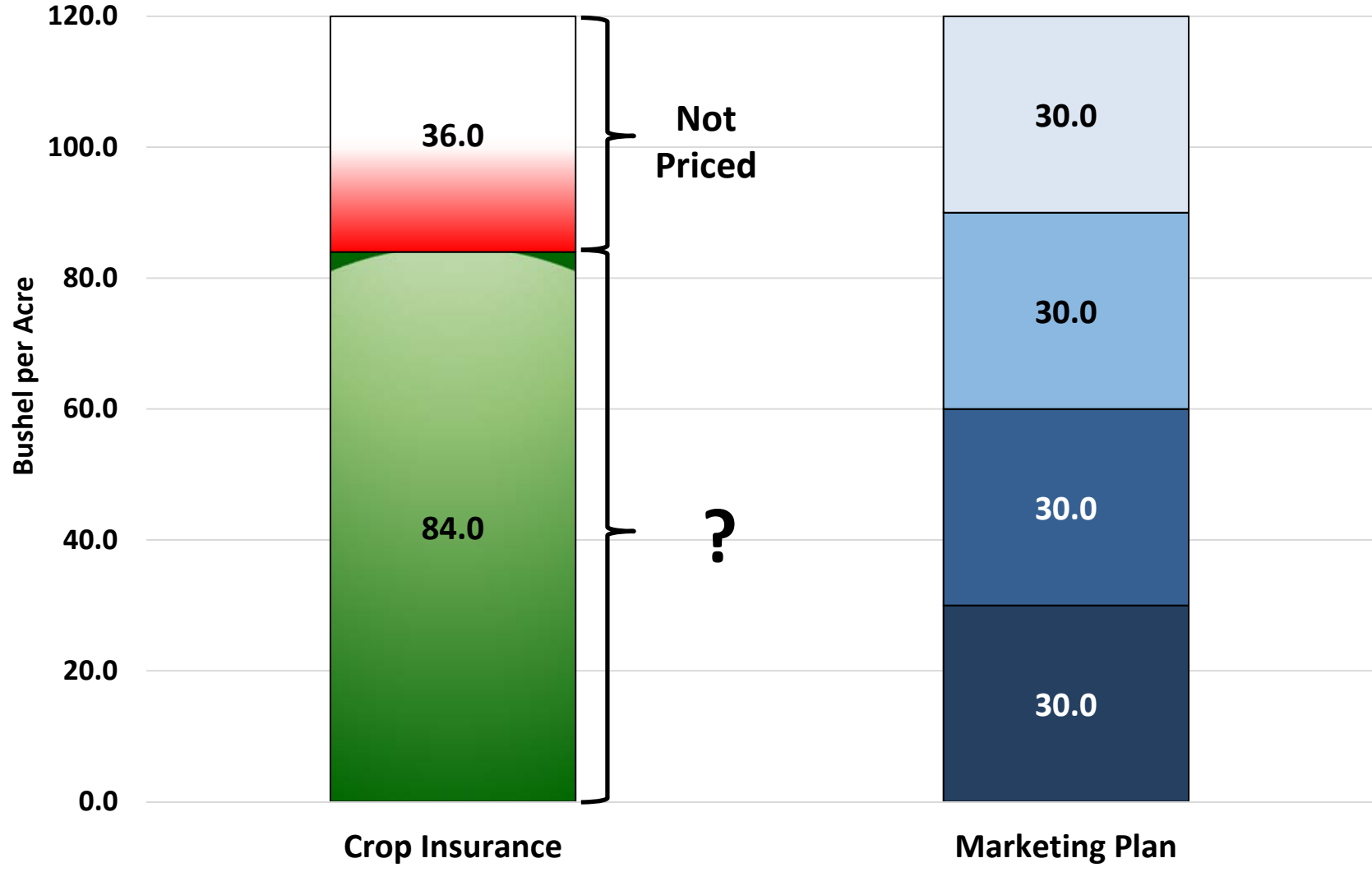
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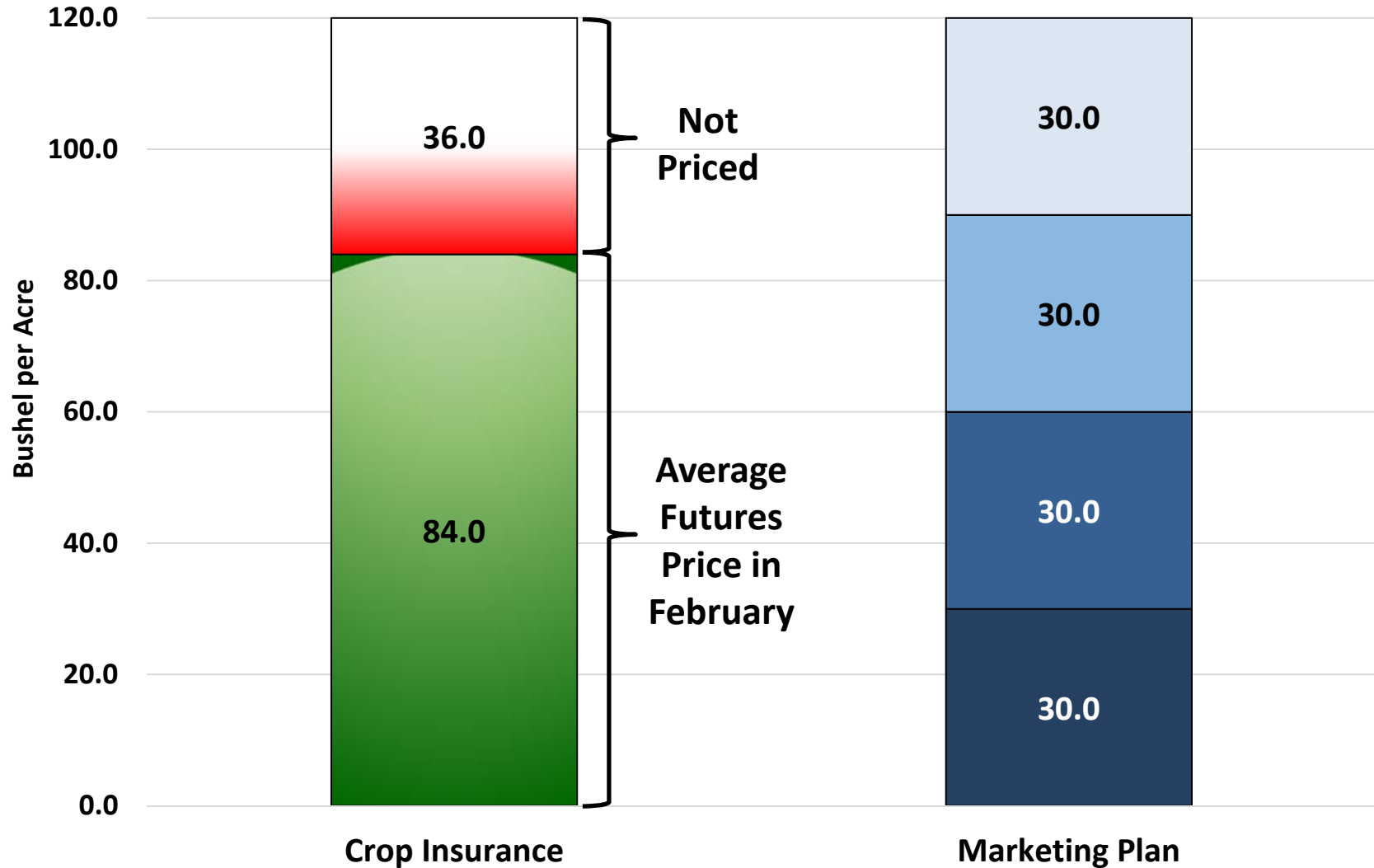
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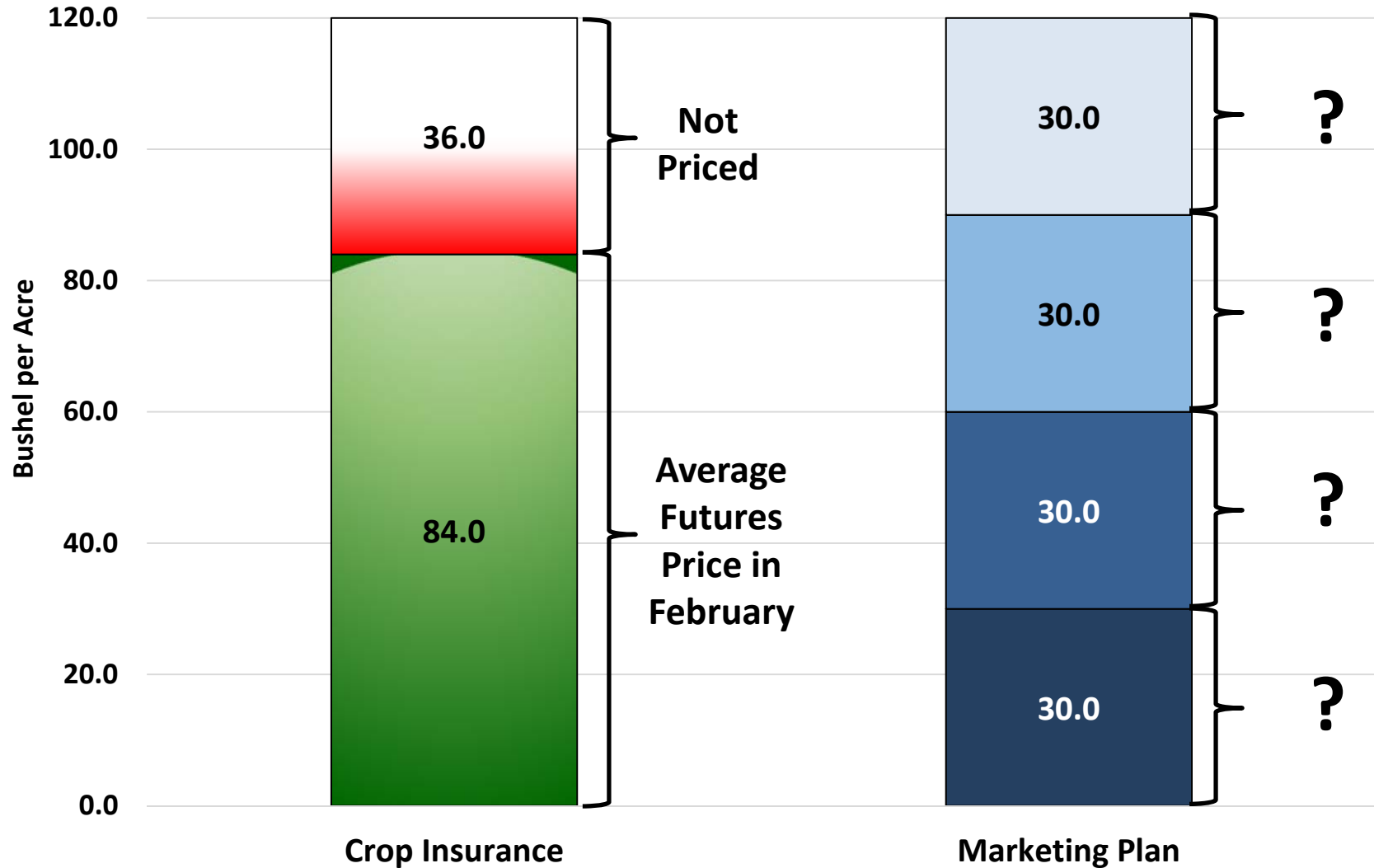
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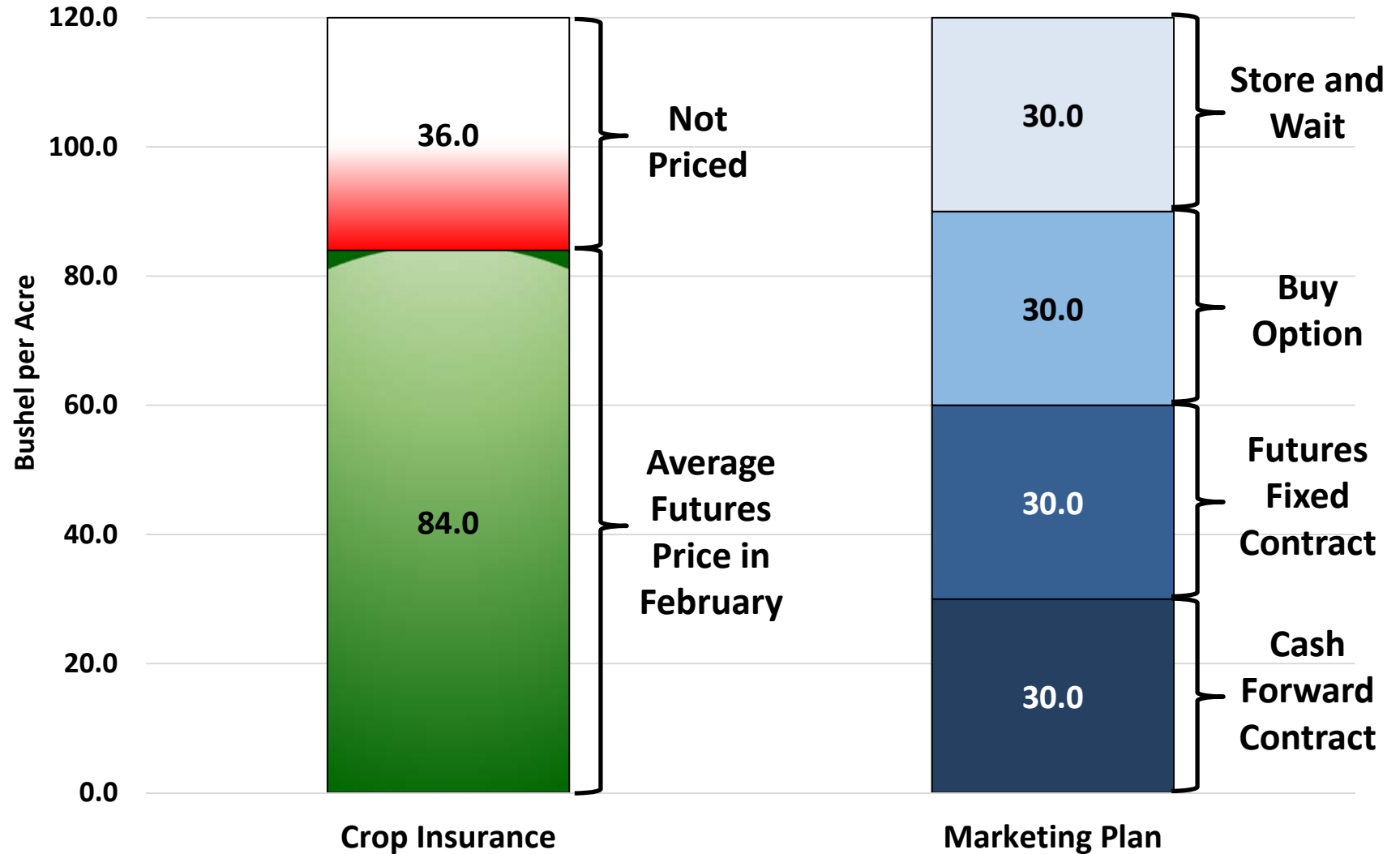
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70 % Yield Insurance



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**Why do marketing
consultants recommend
forward pricing up to your
crop insurance guarantee?**



**What does the yield
distribution look like?**

(see stochastic simulation)



Some marketing consultants will argue that the crop insurance indemnity payments can be used to help pay for cost of “getting out” of an over sold marketing plan.



What about *Revenue Protection*?



Revenue Protection Overview

- Considers both yield and price variation to estimate gross revenue guarantee.
- Yield: APH (actual production history)
- Price:
 - Projected Price = monthly average harvest futures price in February.
 - Harvest Price = monthly average harvest futures price before harvest.



Price Discovery

Commodity Exchange Price Provision

Crop Insured	Exchange Used	Commodity Used	Contract Month	Projected Price Avg Daily Close	Harvest Price ¹ Avg Daily Close
Barley	CBOT	Corn	September	February ²	July ²
Canola	ICE	Canola	November	February ³	September ³
Corn	CBOT	Corn	December	February	October
Soybeans	CBOT	Soybeans	November	February	October
Sunflower	CBOT	Soy Oil	December	February ⁴	October ⁴
Spring Wheat	MGE	HRSW	September	February	August
Durum ⁵					

- 1) Harvest price has upper limit of two times projected price
- 2) Multiplied by factor determined by RMA
- 3) Quotes in Canadian dollars per metric ton are converted to U.S. dollars per pound
- 4) Divide each settlement price by two and add one cent
- 5) Same as spring wheat but multiplied by a factor determined by RMA

Revenue Protection Overview

- Revenue Guarantee = APH x higher of projected price or harvest price.
- Actual Revenue = Actual yield x harvest price.
- Indemnity Payment = Revenue Guarantee – Actual Revenue.



Revenue Protection Overview

- If average futures prices rise (harvest price is higher than projected price), bushels below yield guarantee are valued at the harvest price.
- If average futures prices fall (harvest price is lower than projected price), an average yield may result in an indemnity payment.
- Examples:



Revenue Protection Example #1

- 2014 Projected price for corn = \$4.62/bu.
- 2014 Harvest price for corn = \$3.39/bu.
- \$1.23/bu. decrease in price (26.6% decrease)
- 120 bu. APH and 70% coverage
- Revenue Guarantee = $120 \text{ bu.} \times \$4.62 \times 70\% = \388.08
- Actual Revenue = $120 \text{ bu.} \times \$3.39 = \406.80
- Indemnity = $\$406.80 - \$339.00 = \$0.00/\text{acre}$



Revenue Protection Example #2

- 2014 Projected price for corn = \$4.62/bu.
- 2014 Harvest price for corn = \$3.39/bu.
- 120 bu. APH and 70% coverage
- Revenue Guarantee = $120 \text{ bu.} \times \$4.62 \times 70\% = \388.08
- Actual Revenue = $100 \text{ bu.} \times \$3.39 = \339.00
- Indemnity = $\$388.08 - \$339.00 = \$49.08/\text{acre}$



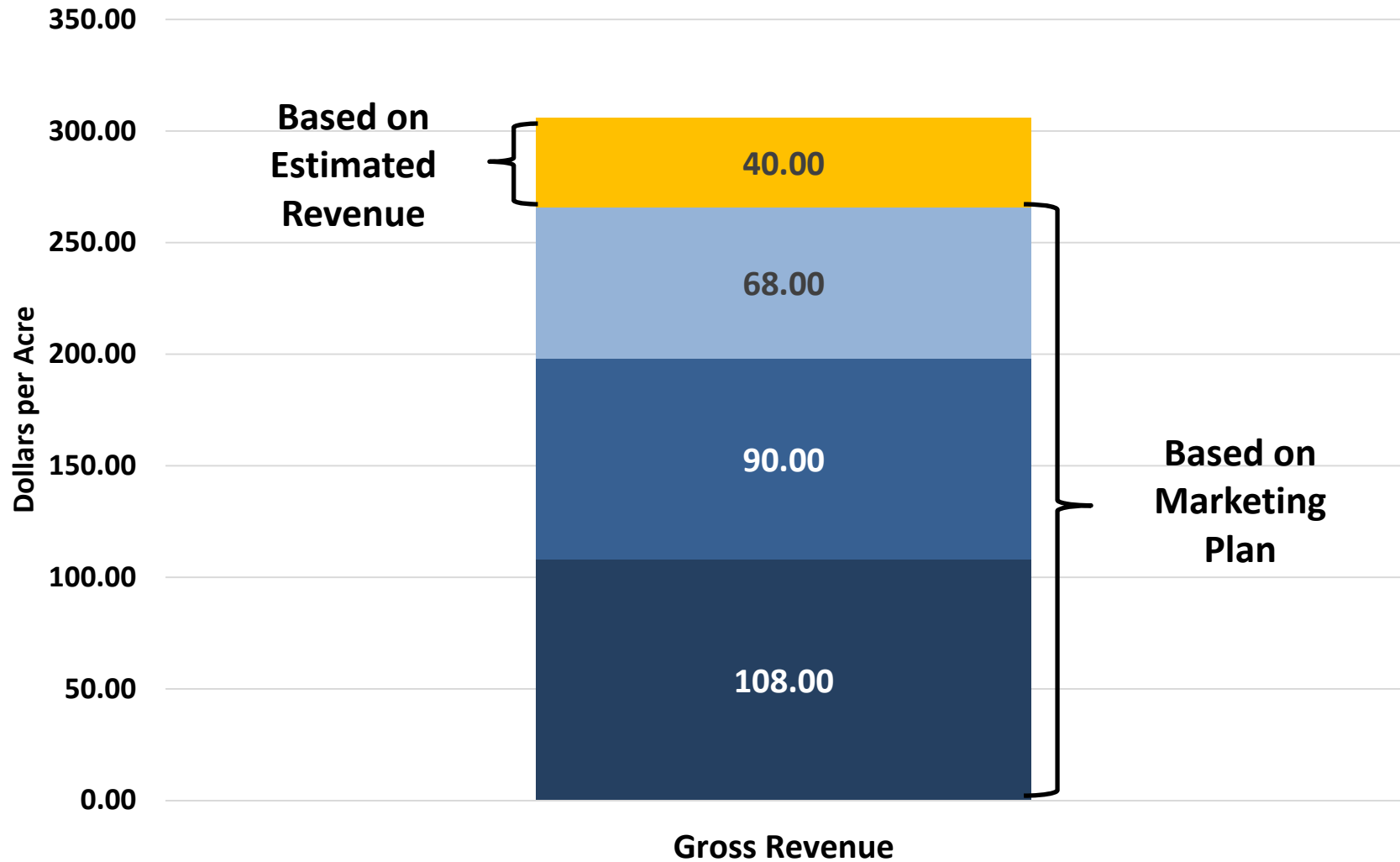
2015 Revenue Protection

- 2015 Projected Prices = ?????
- Current CBOT Dec 2015 Corn = \$4.02/bu.
- Current CBOT Nov 2015 Soybean = \$9.50/bu.
- Current MGEX Sep 2015 HRSW = \$5.74

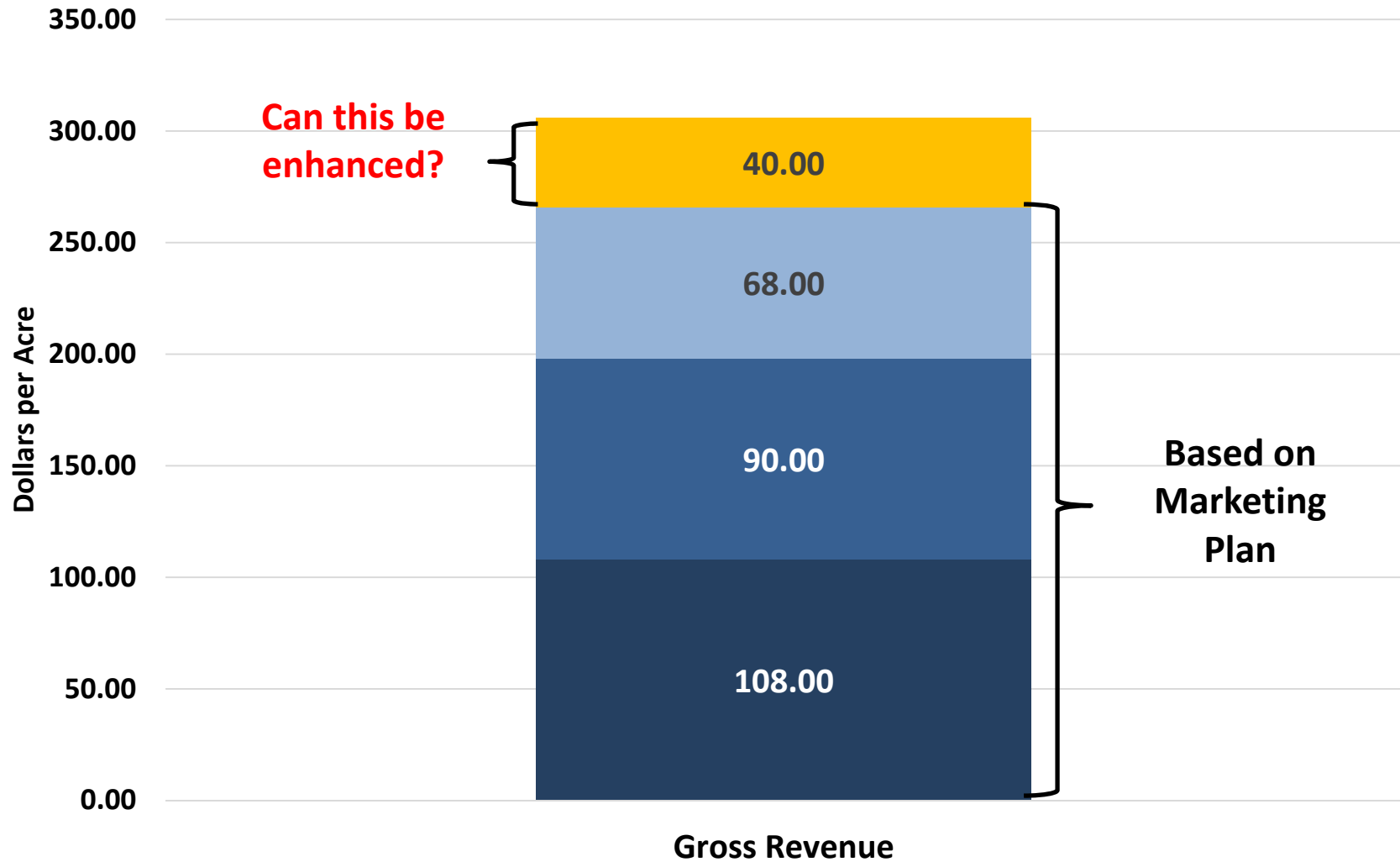
- 120 bu./a. corn APH = 120 bu. x \$4.00 x 70% = \$336.00/acre



Revenue Protection Example

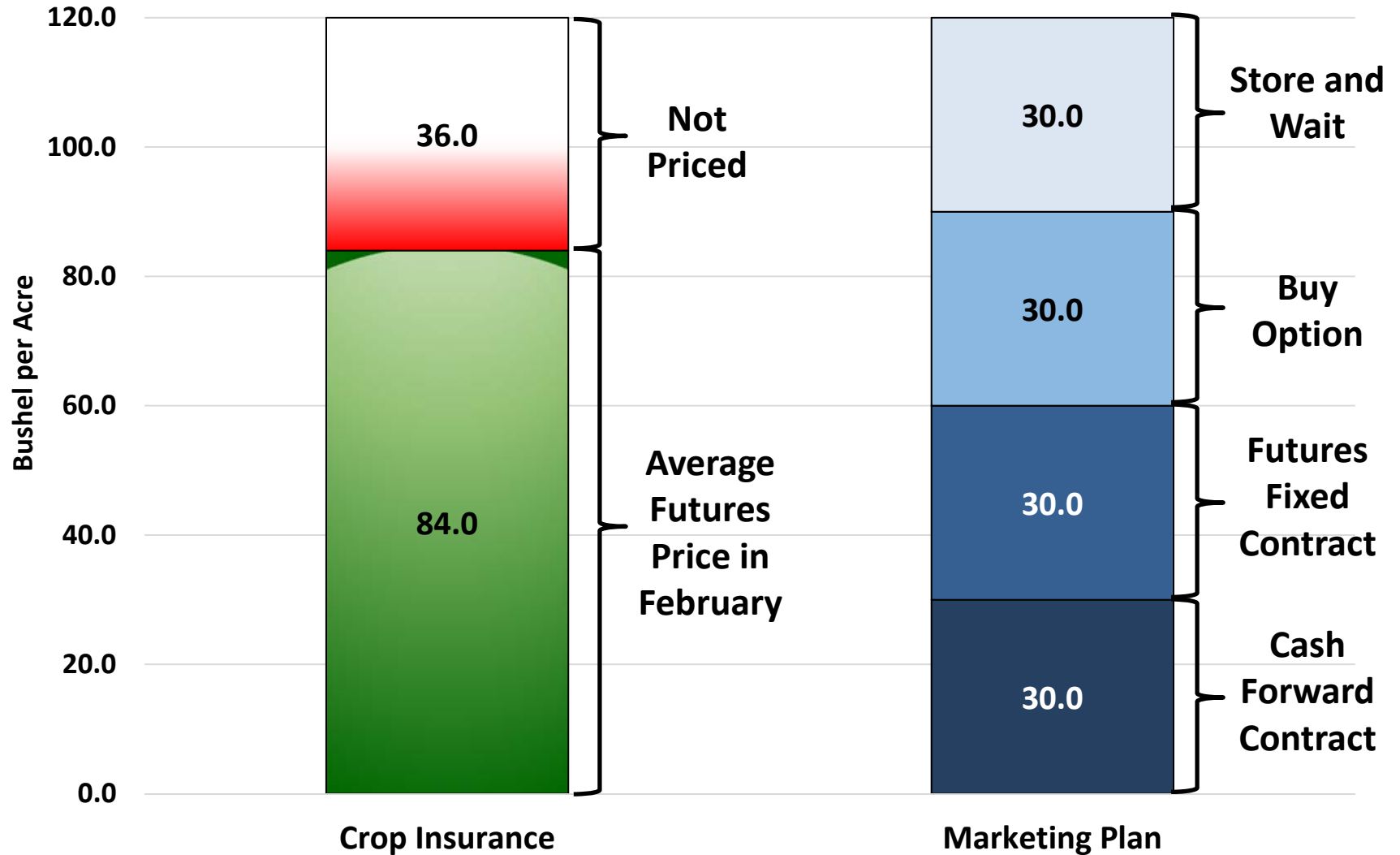


Revenue Protection Example



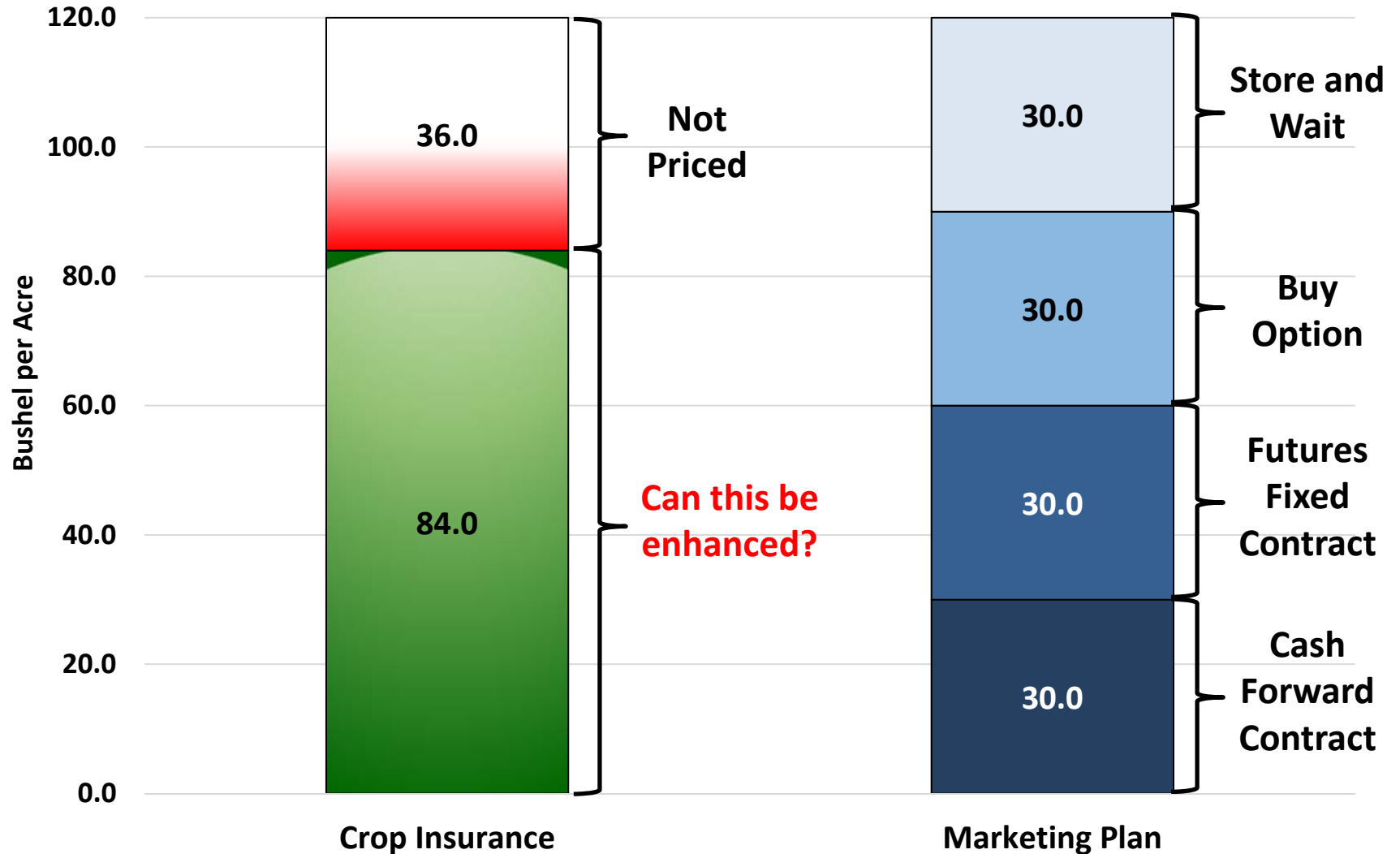
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70 % Yield Insurance



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Questions?

