



# Yield buffering (grain and oilseed plans)

## Feature Sheet

The information in this document applies to the following grain and oilseed crops: barley, beans (adzuki, black, cranberry, Japan/other, kidney, white), canola, corn, organic corn, popping corn, flax, mustard, oats, peanuts, soybeans (tofu, natto, organic), organic winter spelt, spring grains, sunflowers, wheat (hard red winter, organic winter, soft red winter, hard white winter, soft white winter) and spring wheat.

### What is an average farm yield (AFY)?

An AFY is a level of production that reflects your farm’s yield history and is used as a benchmark to determine if your actual production is below average.

Production Insurance provides producers with a guaranteed level of production based on their own farm’s average farm yield (AFY). Claims are paid when a producer’s actual yield falls below their guarantee.

#### AFY for existing participants

Your AFY is calculated using your actual reported yields, up to a maximum of 10 years.

#### AFY for new plan participants

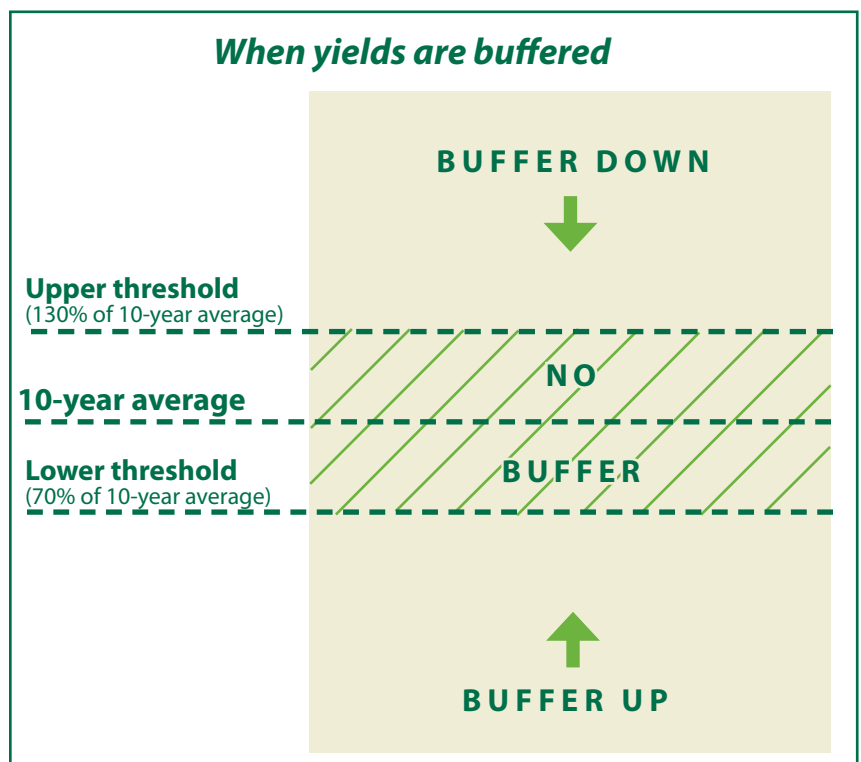
Since new participants in Production Insurance will not have historical yields reported, each crop is assigned an underwritten five-year AFY that is based on a variety of factors such as soil type, drainage, township averages, etc.

Each year that you participate in the plan, your actual yield replaces an underwritten yield until your AFY is composed entirely of your own actual yields.

### Yield buffering

One bad production year doesn’t significantly impact a producer’s 10-year average farm yield. Unusually high and low yields are buffered to stabilize your AFY and lessen the impact of extreme yields.

- Your yield is buffered up if it is below 70% of your 10-year average (lower threshold). The yield is buffered up by two-thirds of the difference between your yield and the lower threshold. See example calculation on page 2.
- Your yield is buffered down if it is above 130% of your 10-year average (upper threshold). The yield is buffered down by two-thirds of the difference between your yield and the upper threshold. See example calculation on page 3.



## How *low yields* are buffered

### Scenario

Crop: **Corn**  
 Current yield: 0 bu/ac  
 Current AFY: 180 bu/ac  
 Next year's 10-year average (no buffer): 162 bu/ac

### How to calculate your buffered yield

#### Step 1: Calculate the lower threshold

Lower threshold = 70% x next year's 10-year average (no buffer)  
 = 70% x 162 bu/ac  
 = 113.4 bu/ac

#### Step 2: Calculate the difference

Difference = lower threshold – current year's yield  
 = 113.4 bu/ac – 0 bu/ac  
 = 113.4 bu/ac

#### Step 3: Calculate the buffer

Buffer = difference x 2/3  
 = 113.4 bu/ac x 2/3  
 = 75.6 bu/ac

#### Step 4: Calculate your buffered yield

Buffered yield = current year's yield + buffer  
 = 0 bu/ac + 75.6 bu/ac  
 = 75.6 bu/ac

10-year AFY	Yield (no buffer) bu/ac	Yield (with buffer) bu/ac	10-year average (no buffer) bu/ac	AFY (with buffer) bu/ac
Year 1	180	180	180	180
Year 2	180	180	180	180
Year 3	180	180	180	180
Year 4	180	180	180	180
Year 5	180	180	180	180
Year 6	180	180	180	180
Year 7	180	180	180	180
Year 8	180	180	180	180
Year 9	180	180	180	180
Current year	0	75.6	180	180
Next year	TBD	TBD	162	169.6

In this example, buffering the zero yield decreased next year's AFY by only 5.8%. Without buffering, next year's AFY would have decreased by 10%.

## How *high yields* are buffered

### Scenario

Crop:	Soybeans
Current yield:	52 bu/ac
Current AFY:	37 bu/ac
Next year's 10-year average (no buffer):	38.5 bu/ac

### How to calculate your buffered yield

#### Step 1: Calculate the upper threshold

$$\begin{aligned} \text{Upper threshold} &= 130\% \times \text{next year's 10-year average (no buffer)} \\ &= 130\% \times 38.5 \text{ bu/ac} \\ &= 50.1 \text{ bu/ac} \end{aligned}$$

#### Step 2: Calculate the difference

$$\begin{aligned} \text{Difference} &= \text{current year's yield} - \text{upper threshold} \\ &= 52 \text{ bu/ac} - 50.1 \text{ bu/ac} \\ &= 1.9 \text{ bu/ac} \end{aligned}$$

#### Step 3: Calculate the buffer

$$\begin{aligned} \text{Buffer} &= \text{difference} \times 2/3 \\ &= 1.9 \text{ bu/ac} \times 2/3 \\ &= 1.3 \text{ bu/ac} \end{aligned}$$

#### Step 4: Calculate your buffered yield

$$\begin{aligned} \text{Buffered yield} &= \text{current year's yield} - \text{buffer} \\ &= 52 \text{ bu/ac} - 1.3 \text{ bu/ac} \\ &= 50.7 \text{ bu/ac} \end{aligned}$$

10-year AFY	Yield (no buffer) bu/ac	Yield (with buffer) bu/ac	10-year average (no buffer) bu/ac	AFY (with buffer) bu/ac
Year 1	37	37	37	37
Year 2	37	37	37	37
Year 3	37	37	37	37
Year 4	37	37	37	37
Year 5	37	37	37	37
Year 6	37	37	37	37
Year 7	37	37	37	37
Year 8	37	37	37	37
Year 9	37	37	37	37
Current year	52	50.7	37	37
Next year	TBD	TBD	38.5	38.4

In this example, buffering the high yield increased next year's AFY by 3.8%. Without buffering, next year's AFY would have increased by 4%.

**Errors and omissions excepted.**

Agricorp reserves the right to make corrections if there are any errors or omissions on this feature sheet. For specific legal obligations of Production Insurance, consult the *Contract of Insurance: General Terms*. For details on the collection of information and treatment of records, refer to Section E of the *General Terms*.

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