



An Update on Effort to Represent Double Cropping

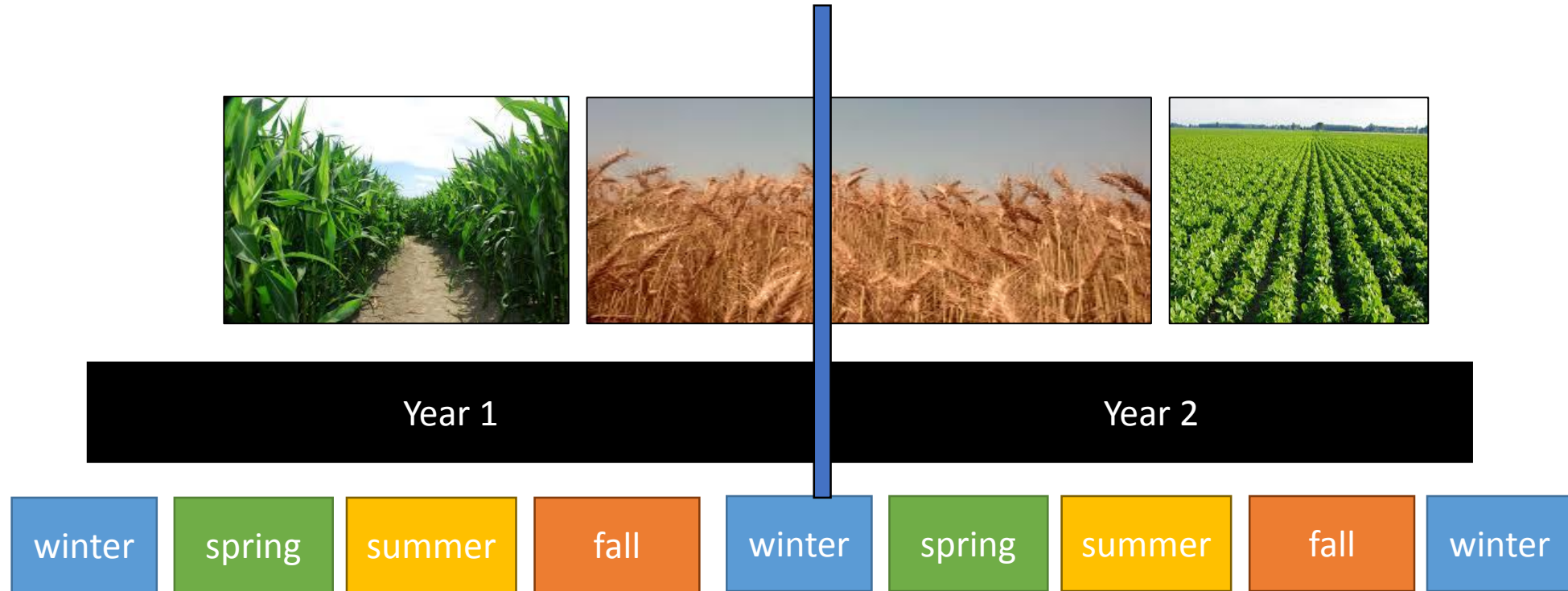
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Outline

- Describe shortcomings of current Phase 6 double-crop acreage estimates.
- Review potential new approach to estimate double-crop acres.
- Review potential new approach to assign double-cropped applications to existing land uses.

Land Uses: Agricultural Double-Cropped Acres



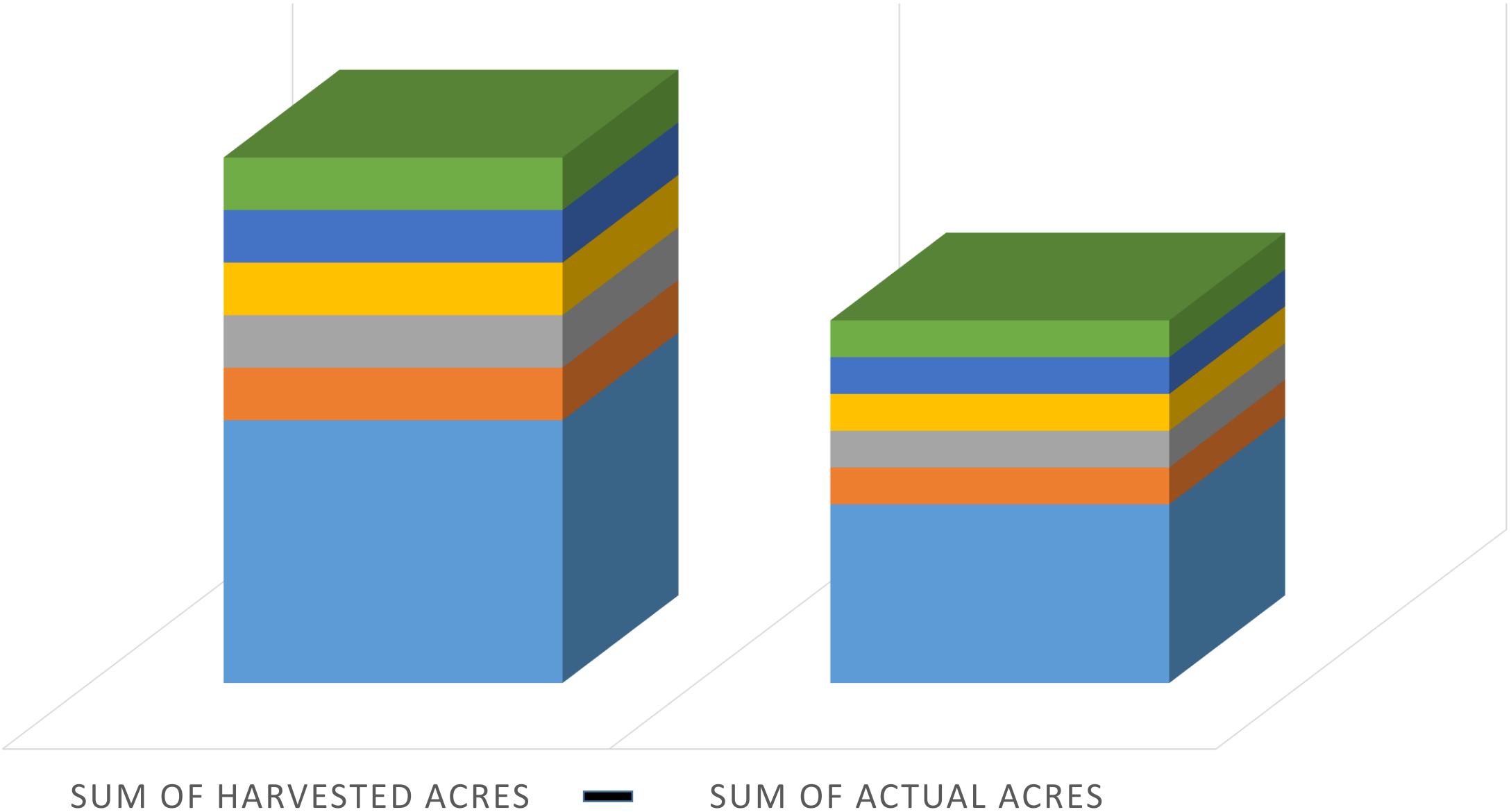
- The Small Grains/Soybeans land use is created using the double-cropping procedure to reflect the typical corn/soybean/wheat rotation.

Category Definitions

- Major Row Crops: Corn, Sorghum, Wheat and other Small Grains
- Minor Row Crops: All other row crops
- Hay & Forage
- Vegetables
- Nursery
- Orchard

CURRENT PHASE 6

Major Row Crops Minor Row Crops Hay & Forage Vegetables Nursery Orchard



Land Uses: Agricultural Double-Cropped Acres

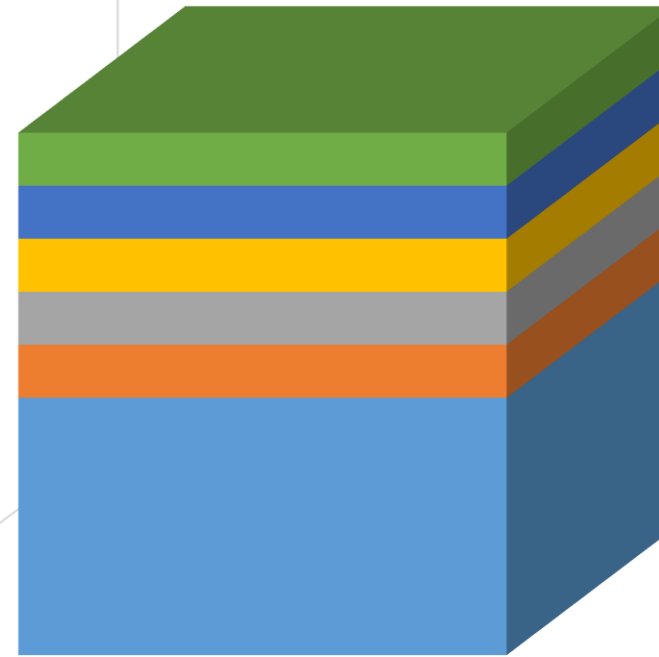
- The following “major field crops” can be double-cropped with one another:
 - Barley; Buckwheat; Canola; Corn for Grain; Corn for Silage; Emmer and Spelt; Oats for Grain; Rye for Grain; Sorghum for Grain; Sorghum for Silage; Soybeans for Beans; Triticale; and Wheat for Grain
- Harvested acres of these crops are then compared to the total harvested cropland area reported by Census of Agriculture AFTER removing all other crop types. This represents the “major field cropland harvested area.”
- If acres of “major field crops > “major field cropland harvested area,” then acres of Small Grains and Soybeans are created.

REVISED PHASE 6

■ Major Row Crops ■ Minor Row Crops ■ Hay & Forage ■ Vegetables ■ Nursery ■ Orchard

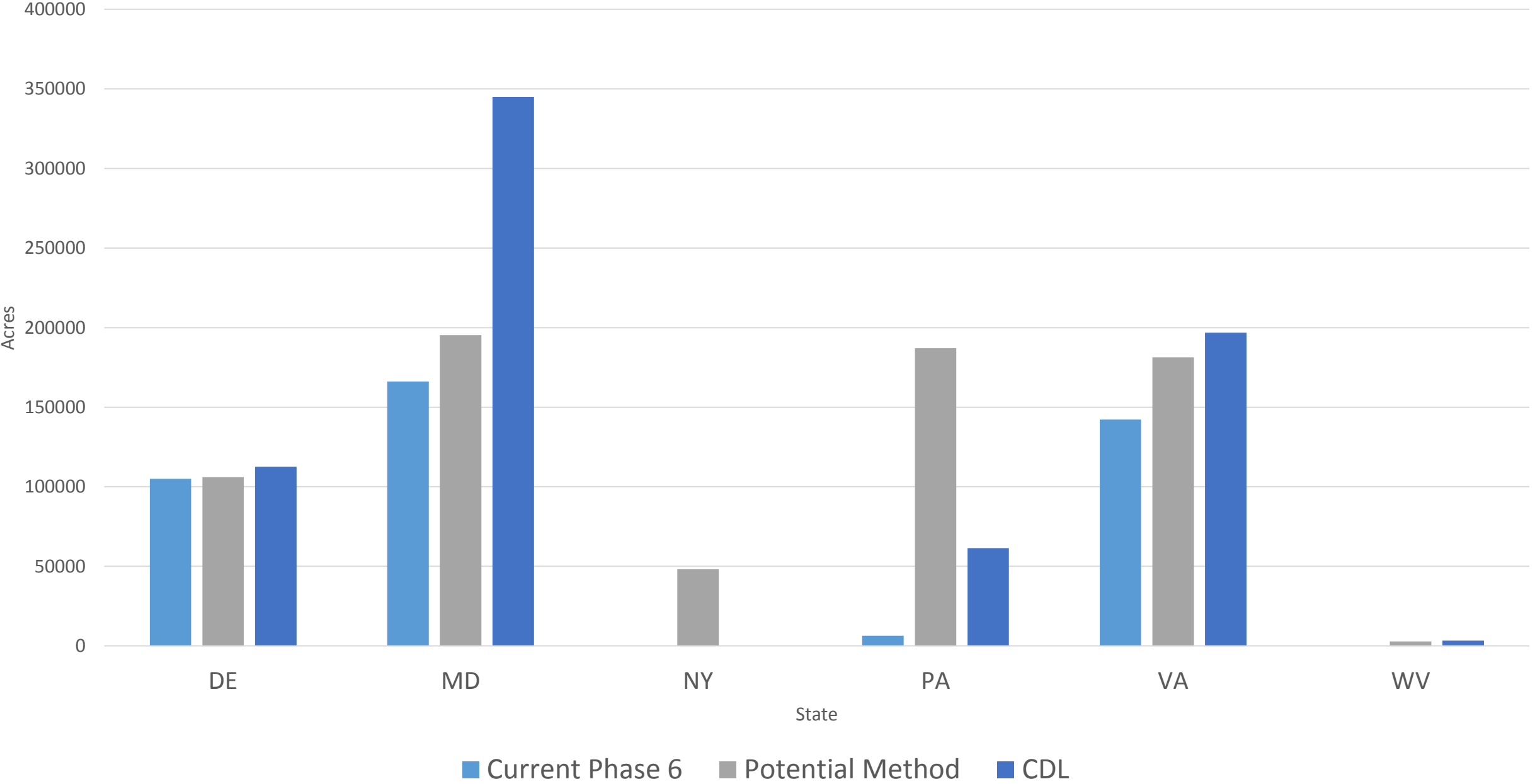


SUM OF HARVESTED ACRES

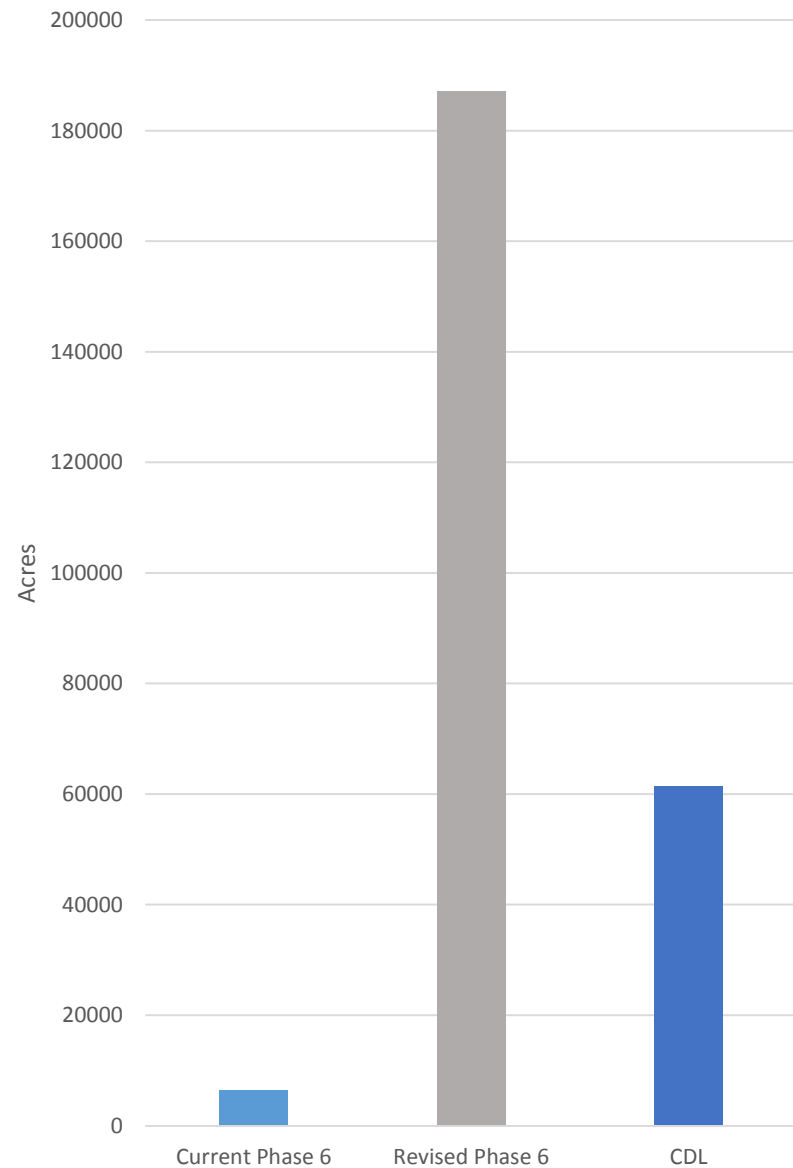


SUM OF ACTUAL ACRES

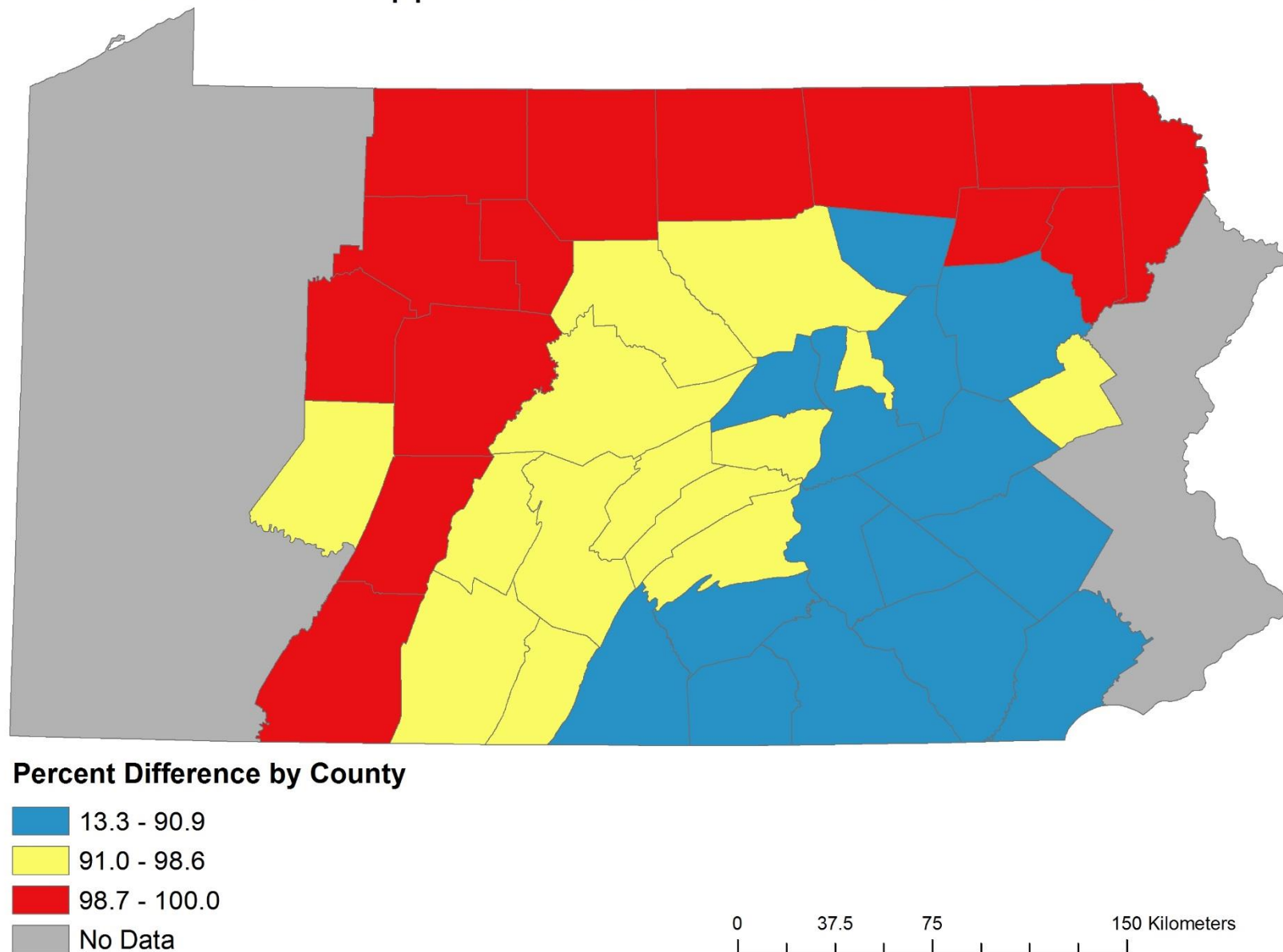
Comparison of Methods for Calculating Double Cropped Acres 2012



Comparison of Methods for Calculating
Double Cropped Acres 2012 in PA



Average Percent Difference from Revised Phase 6 Method and
CDL Double Cropped Acres for PA CBW Counties 2008-2012



Key Findings

- Revised Phase 6 method captures more double cropped acres of small grains in heavy row crop areas
- Revised Phase 6 method captures double cropped acres of hay and forage in counties where little to no double cropped acres were reported in the current Phase 6 method.

Unique Double-Cropping Situations Should be Defined

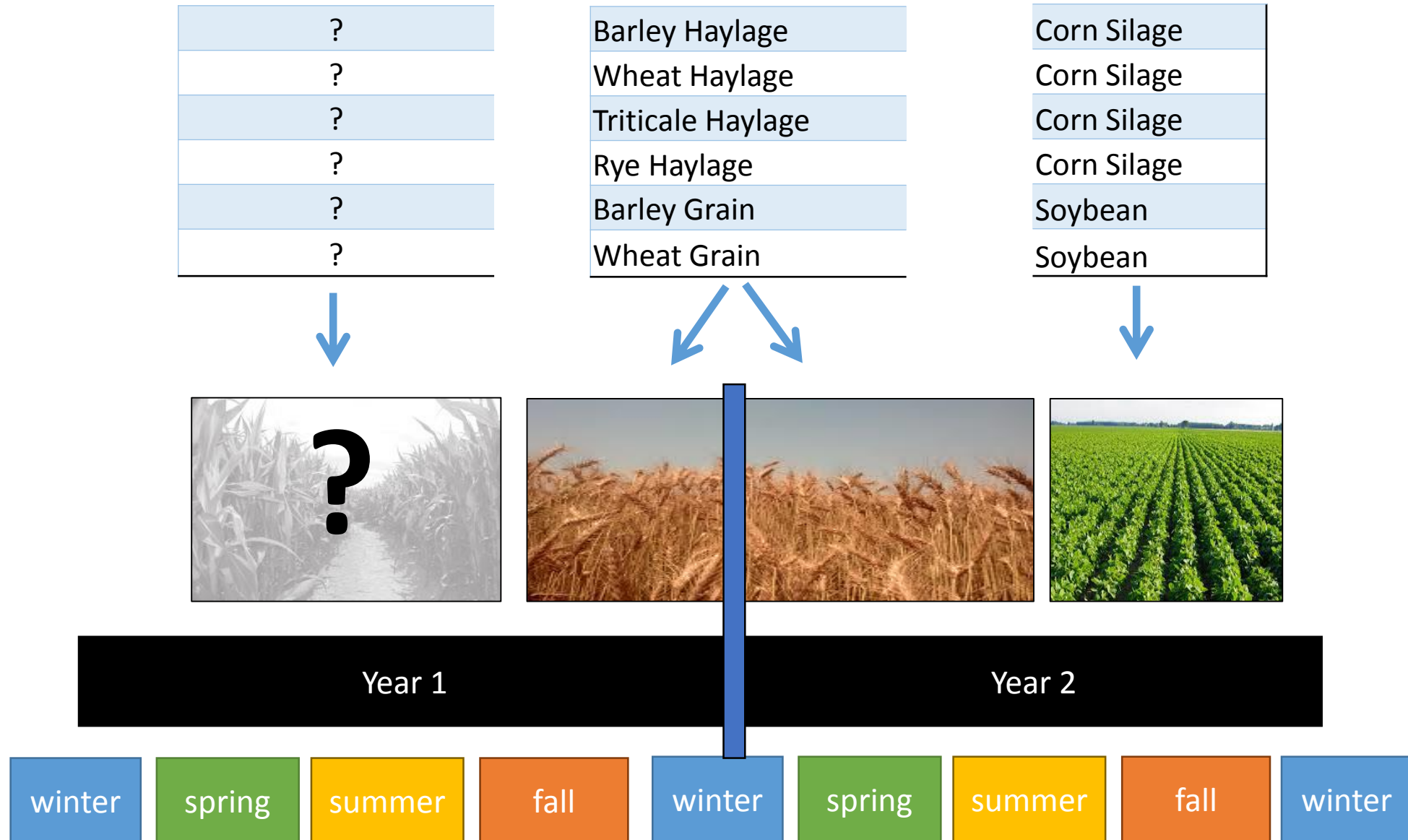


Diagram courtesy of Olivia Devereux

Assigning Applications to Land Uses

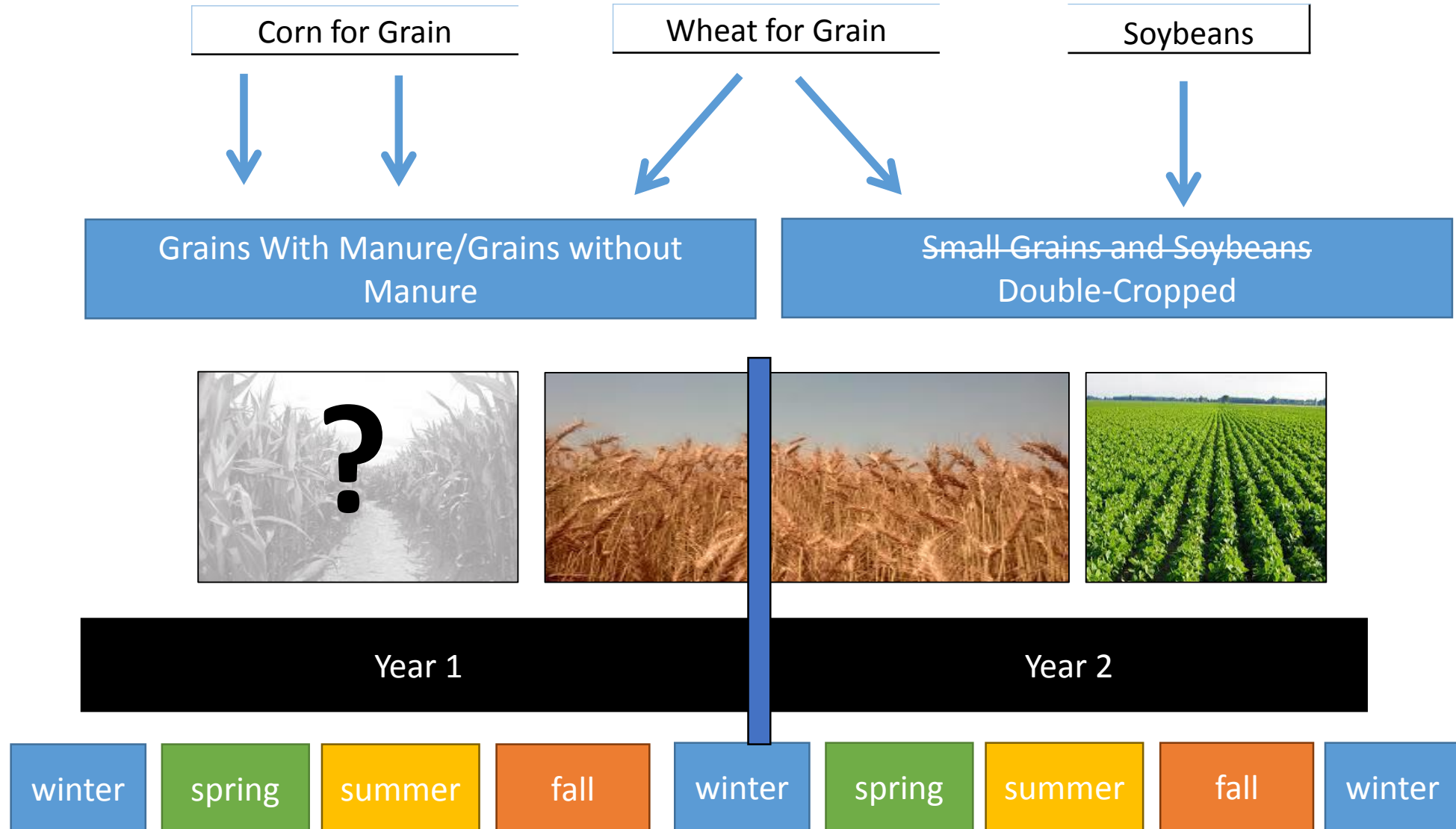


Diagram courtesy of Olivia Devereux

Pro/Con

- Pro: Applications in model better reflect applications in the real world split between grains/small grains and soybeans.
- Con: Removes the ability of Grain with Manure or Grain without Manure to represent simply corn. Applications of small grains will now be applied on this land use.