

**IDLELAND**  
**Various Notes and Documentation on Idleland in POLYSYS**

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Idleland in POLYSYS is the reported Ag Census 'Idle land' MINUS census reported Conservation Reserve Program.

Below is the AgCensus definition of 'Idle Land'. Ours is the same except we take out CRP lands.

*“Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed. Cropland idle includes any other acreage which could have been used for crops without any additional improvement and which was not reported as cropland harvested, cropland on which all crops failed, cropland in summer fallow, or other pasture or grazing land that could have been used for crops without additional improvements. This category includes:*

- 1. Land used for cover crops or soil improvement but not harvested or grazed.*
- 2. Land in Federal or State conservation programs that was not hayed or grazed in 2012.*
- 3. Land occupied with growing crops for harvest in 2013 or later years but not harvested or summer fallowed in 2012 (except fruit or nuts in an orchard, grove, or vineyard or berries being maintained for production). Examples are acreage planted in winter wheat, strawberries, etc., for harvest in 2013 and no crop was harvested from these acres in 2012.*
- 4. Land in “skipped” rows between rows of crops or field strips.*

POLYSYS does this:

- 1) If the USDA baseline has total crop acreage increasing, POLYSYS draws from the 2012 census total idleland to add acreage to crops.
- 2) If USDA baseline has total crop acreage decreasing, POLYSYS pushes the reduction of acreage on to the 'idleland' category.

It is not a 'dynamic' landuse category in POLYSYS...ie, its amount does not change given alternative scenarios. It should be the same amount in all scenarios using the same USDA baseline.

## How idleland comes in and out of production in simulations

The only reason we use idleland is to calibrate how much land is brought into production in counties so that the national total acreage equals USDA baseline.

We have 'base' acreage of each crop in polysys.

The sum of this 'base' acreage never exactly equal to USDA yearly projections of cropland. USDA projections go up and down from year to year...usually never exceeding 3 million acres in movement.

We could increase our 'base' acreage by the same ratio in all counties to bring it up to USDA projections.

But this would be unrealistic in that in some counties there is not any more available acreage.

This is where we use idleland...as a gauge to make sure we don't bring in too much land in a county.

We use the census reported idleland as the initial value of land available.

We never add more land to a county than idleland that is available.

When USDA projections go down, we add to this pool of idleland (if we add, we add the same ratio to all county idleland).

The resulting movement of land in and out of idleland stays the same for the baseline and all simulations.

In the baseline, the land is added crop by crop so that each 'base' crop acreage equals USDA yearly projection.

In the simulations, it appears as new land that will go to the most profitable venture.

If in a county, 200 acres of ideland come into production in a given year, then any crop, including switchgrass, could take it. It is considered 'cropland'.

Idleland can switch into biomass crops in simulations even though it is not in the LP matrices.

The same amount of idleland transitions in the all simulations as in the baseline. For example in a county, say 200 acres of idleland come into production in the baseline in 2029. Say they go to wheat in the baseline. In the simulation they go to the more profitable crop...ie switchgrass possibly. In this way the LUC shows that idleland transitioned to switchgrass. The amount of land in 'idle' is the same for all baseline and simulation runs.

The logic is hard to follow because the LUC output files track **year to year** changes in landuse within the same simulation. You could also compare landuse changes between the baseline and

the simulation in a given year. In such a comparison, you'd see that those 200 acres show up as wheatland that transitioned to switchgrass.