

SGISfarm

Template Library

CROP_REMOVAL_POTASSIUM

DESCRIPTION

This recommendation template will generate a variable rate application which will replace the amount of K2O removed from the soil with the harvested crop. This fertility management is very common in the Midwest corn and soybean growing areas in North America. It is designed to be used with harvest crops where the yield is reported in bushels/acre.

REQUIRED SGISFARM DATA

The following data must be imported into the SGISfarm database for the selected field before the template will successfully create the desired application map.

Variable Name	Definition	Source
Corn_Harvest_00	Yield measured in Bu/a	Combine Yield Monitor Data

USER DEFINED CONSTANTS

The following constants must be given a value by the user at runtime. Values or these constants may be obtained from one of the references at the end of this document or from other references or consultants available to the user.

Constant Name	Definition	Units	Range	Default Value
K_Crop_Removal	The amount of K20 removed from the soil with each bushel of harvested grain.	Lbs/bu	➤ 0	None
K_Percent	The percentage of available K20 in the fertilizer being applied	%	0-100%	100%
AdjustValue	A factor to uniformly adjust the application total up or down. Values < 1 will decrease the total applied and values > 1 will increase the total applied	None	➤ 0	1

CROP INPUT PRODUCT

The template uses the following crop input product. It is important to ensure the product application units matches the application machine selected to apply the map. Alternative products may be selected by the user but the application units must be the same as the original product.

Product Name	Application Units	Chemical Analysis	
		Element	Percent
SGISfarm_K	Lbs/acre	K20	100%

REFERENCES

The following references can be valuable to learn more about the crop and regional suitability of this template as well as finding acceptable values for some of the user defined constants.

Author	Url or Reference Title
Ohio State University Extension	http://ohioline.osu.edu/e2567/index.html

ADVANCED SETTINGS

SGISfarm templates also contain many advanced settings used in the creation of variable rate crop input maps. For the convenience of the user these settings have already been set and it is recommended they not be changed. More information on these settings can be found in the SGISfarm training manual.

DATA MODELING

Before data can be used to create a variable rate map it must first be fit a standard grid. The settings below define how each data source is modeled or conformed to this standard grid.

Polygon Data Variables

Variable Name	Gridding Method	Aggregate Method	Corner Operation
Corn_Harvest_00	4-Corner Point	First	Maximum

Point Data Variables

Variable Name	Gridding Method	Search Radius	Max. Data Points	Exponent
None				

DATA SELECTION SETTINGS

The data selection settings determine exactly what data in SGISfarm is used in the recommendation template. Data may be specified by date range or by specifying which data events to use. The settings defined in this template should be changed only with great care.

Variable Name	Relative Start	Duration	Event Selection
Crop	NA	NA	Latest