

Regions from Raster Expressions

The upper example generates a raster expression region based on a classification raster then uses that region to select soil polygons that fall at least partially inside the region. It is a simple method for determining which soil types (or other attributes of interest) are associated with a particular ground cover class.

The region was used to select polygons in a soil map. The associated records are shown below.

This expression identifies cells of a specified value in a classified raster for region generation.

Raster Expression Region Generation

RegionCombo2 / CB_ClassRaster

Raster Expression...

Line Width: 3 Pixels

Advanced Options

Query Editor

File Edit Insert Syntax Help

CB_ClassRaster == 14

Table Edit Record Field

Style	Class
BF	
BgB	
BoD	
ObB	
InC	
KaD2	
KeB	
KeD	
IbF	
Sa	
Sn	
SrD	
VaC	

The example below uses information from two different rasters to generate a region that identifies potential habitats for a noxious weed species known to grow only on south facing slopes at elevations below 2000 feet. The two rasters referenced in the expression are an elevation raster for the area and an aspect raster generated in TNTmips.

South facing slopes at 2000 feet or less (orange) shown over elevation raster.

Raster Expression Region
Elevation < 2001

Raster Expression Region
(Aspect > 150)
and (Aspect < 210)

Raster Expression Region Generation

Add Rasters...

demGRS / Aspect
demGRS / Elevation

Raster Expression...

Line Width: 3 Pixels

Advanced Options

Minimum subregion size: 0.1000

Minimum island size: 0.0000

Units: sq kilometers Remove all islands

OK Cancel

Above Left: Region produced by expression shown over DEM (note that advanced options have been applied to remove subregions less than 0.1 square kilometers and islands). Above Center: Region produced if expression applied to elevation raster only. Above Right: Region produced if expression applied to Aspect raster only.

Query Editor

File Edit Insert Syntax Help

(Elevation < 2100) and
((Aspect > 150) and (Aspect < 210))

OK



The region at the left that includes south facing slopes at elevations below 2000 feet serves as input for the Region Combinations example (another of the color plates attached) in which the potential weed habitat is intersected with buffer zones generated around roads to determine the area for a weed control program.