## Creating a Legend for the CDL Image in ArcGIS

## Note: If you have downloaded CDL data from CropScape, then you will need to perform the steps in this first paragraph, which details how to add category names to a .tif image downloaded from CropScape in ESRI's ArcGIS ArcMap application:

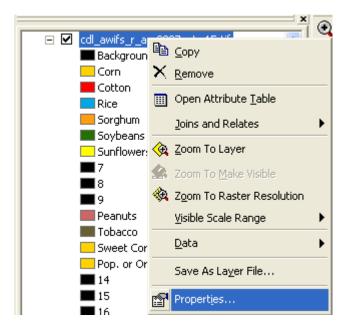
The CDL .tif file contains the category values but not the category names. For ESRI's ArcGIS ArcMap application to display the category names, download the file: <u>generic\_cdl\_attributes.tif.vat.dbf</u>. This generic file contains all possible CDL colors and category names. As long as the .tif file and the .tif.vat.dbf file have the same file name, then the category names will load automatically in ArcMap. So change the file name (not extension) of the generic\_cdl\_attributes.tif.vat.dbf to match the file name of the downloaded CDL .tif file. Then add the .tif file as a layer in ArcMap. The category names will display in the Table of Contents window. Example 1 - If the downloaded .tif file is: \_NASS\_DATA\_CACHE\_CDL\_2010\_clip\_20110307142903\_862761787.tif Change the generic\_cdl\_attributes.tif.vat.dbf file name to:

\_NASS\_DATA\_CACHE\_CDL\_2010\_clip\_20110307142903\_862761787.tif.vat.dbf Example 2 – If you renamed the downloaded .tif file to MyCDL.tif, then rename the generic\_cdl\_attributes.tif.vat.dbf file name to MyCDL.tif.vat.dbf.

1) Open ArcGIS and add the .tif or .img file to the map document:

😪 Untitled - ArcMap - ArcInfo
<u>File Edit View Insert Selection Tools Window H</u> elp
🗋 🖆 🖬 🎒 👗 🖻 🛍 🗙 🗠 🗠 🔶 [1:3,011,522 💽 💽
Editor Task: Create New Feature Target:
Add Data
Look in: 🗀 NASS_AR
<pre>cdl_awifs_r_ar_2007_albers.img cdl_awifs_r_ar_2007_albers.tif cdl_awifs_r_ar_2007_albers_confidence.img cdl_awifs_r_ar_2007_albers_confidence.tif cdl_awifs_r_ar_2007_utm15.img cdl_awifs_r_ar_2007_utm15.tif cdl_awifs_r_ar_2007.jpg</pre>
Name: cdl_awifs_r_ar_2007_utm15.tif Add
Show of type: Datasets and Layers (*.lyr)

2) Right click the image in the table of contents to get the Layer Properties form.



3) Select the Symbology tab. The Colormap will display:

Layer Properties		? 🔀
	Display Symbology Fields Joins & Relates	
Show: Unique Values	Draw raster using internal colormap	Import
Classified		
Stretched Colormap	Symbol Label	<u> </u>
coormap	Background	
	Com Cotton	
	Bice	
	Sorghum	
	Soybeans	
	Sunflowers	
	7	
	Peanuts	
	Tobacco	
	Sweet Corn	~
	Display NoData as	
	OK Cancel	Apply

4) Select Unique Values. The Value Field will be set to Class\_names and the colors will NOT be correct:

Layer Properties			? 🗙
General Source Extent	Display Symbology Fields Joins & F	Relates	
Show: Unique Values	Draw raster assigning a color to ea	Import	
Classified Stretched Colormap	Value Field		
	Class_names		· ·
	Symbol <value></value>	Label	Count 🔼
	<pre><all other="" values=""></all></pre>	<all other="" values=""></all>	
	<heading></heading>	Class_Names	
	Alfalfa	Alfalfa	0 442
	Apples	Apples	112
	Aquaculture	Aquaculture	6089
	Background	Background	0
	Barley	Barley	0
	Barren	Barren	0 💌
	Add All Values Add Values	Remove	Default Colors
		Display NoDa	ata as 🔤 🔽
		OK Ca	ncel Apply

5) Use the pulldown arrow on the Value Field and select Value. The legend will only display numbers, not class names:

Layer Properties			? 🗙
General Source Extent	Display Symbology Fields Joi	ns & Relates	
Show:	Draw raster assigning a color	to each value	Import
Unique Values Classified			Importin
Stretched	Value Field	Color Scheme	
Colormap	Value	▼	-
	Symbol <value></value>	Label	Count
	all other values>	<all other="" values=""></all>	
	<heading></heading>	¥alue	
		0	0 695479
	1	1	1079114
	3	3	1571193
	4	4	170956
	5	5	3115597
	6	6	233 💌
	Add All Values Add Value	Remove	Default Colors
		Display NoD	Data as
		<u>ОК</u> С.	ancel Apply

6) Again, use the pulldown arrow again on the Value Field and select Class\_names. The legend displays the class names with the correct colors:

Layer Properties				? 🗙	
General Source Extent	Display Symb	ology Fields Joins & R	elates		
Unique Values	Draw raster assigning a color to each value Import				
Classified Stretched Colormap	Value Field		Color Scheme		
	Symbol <va< td=""><td>LUE&gt;</td><td>Label</td><td>Count 🔼</td></va<>	LUE>	Label	Count 🔼	
	<all< td=""><td>other values&gt;</td><td><all other="" values=""></all></td><td></td></all<>	other values>	<all other="" values=""></all>		
		ading>	Class_names		
	Alfal	-	Alfalfa	442	
	Appl		Apples	0	
		aculture	Aquaculture	6089	
		ground	Background	0	
J	Barle	•	Barley	0	
	Barr		Barren	0	
	Cam	elina	Camelina	0 💌	
	Add All Valu	Add Values	Remove	Default Colors	
			Display NoD	ata as	
			OK Ca	ancel Apply	

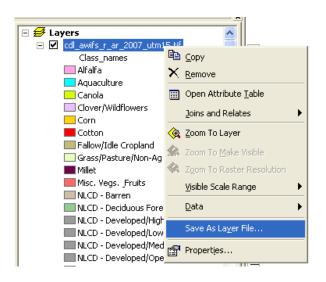
7) To remove classes with zero pixels (Count is 0), use the cursor to select a class and click the Remove button:

Layer Properties			? 🛛
General Source Extent	Display Symbology Fields Joins & F	elates	
Show: Unique Values Draw raster assigning a color to each value Impor			
Classified Stretched Colormap	Value Field Class_names	Color Scheme	
	Symbol <value></value>	Label	Count 🔼
	<pre><all other="" values=""></all></pre>	<all other="" values=""> <b>Class_names</b> Alfalfa</all>	442
	Apples	Apples	0
	Aquaculture Background	Aquaculture Background	6089 0
	Barley	Barley	0
	Barren Camelina	Barren Camelina	0 0 💌
	Add All Values Add Values	Remove D Display NoData	efault Colors
		OK Cance	el Apply

8) Remove all classes with zero pixels and then click OK button:

Layer Properties					<mark>?</mark> ×
General Source Extent	Display	Symbology Fields Joins & R	elates		- 1
Unique Values	Draw raster assigning a color to each value Import				
Classified Stretched Colormap	Value Field Class_names Class_names				]
	Symbol	<value></value>	Label	Count	<u> </u>
		<all other="" values=""></all>	<all other="" values=""></all>		
		<heading></heading>	Class_names	-	-
		Alfalfa	Alfalfa	442	
		Aquaculture	Aquaculture	6089	
		Canola	Canola	1	
		Clover/Wildflowers	Clover/Wildflowers	2	
1		Corn	Corn	695479	
		Cotton	Cotton	1079114	_
		Fallow/Idle Cropland	Fallow/Idle Cropland	149970	<u> </u>
	Add Al	Add Values		Default Colors	
			Display NoData	a as	•
			OK Cano	el Ap	ply

9) To save the image's color scheme to a layer file, right click the image in the table of contents and select "Save As Layer file ..." and specify a directory and .lyr file name, then Save. The .lyr file can be imported to colorize the image (Layer Properties > Symbology tab > Import button). However, the classes with zero pixel counts must be removed <u>prior</u> to importing the .lyr file (see steps 7 and 8).



10) Switch to the map layout view and insert the legend. To remove classes with the same colors, convert the legend to graphics, ungroup the graphics, and delete the class symbol and associated text. There is no automatic method to order classes by pixel count – this must be done by interactively reordering the legend classes.

