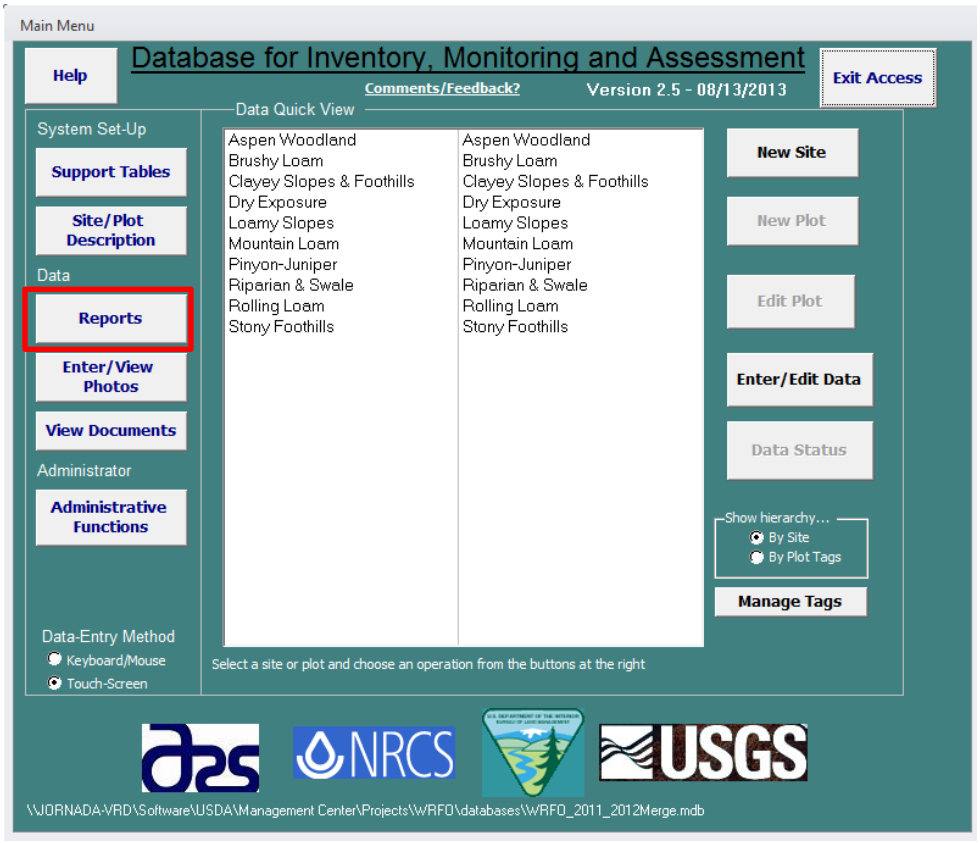
Core Indicator Reports

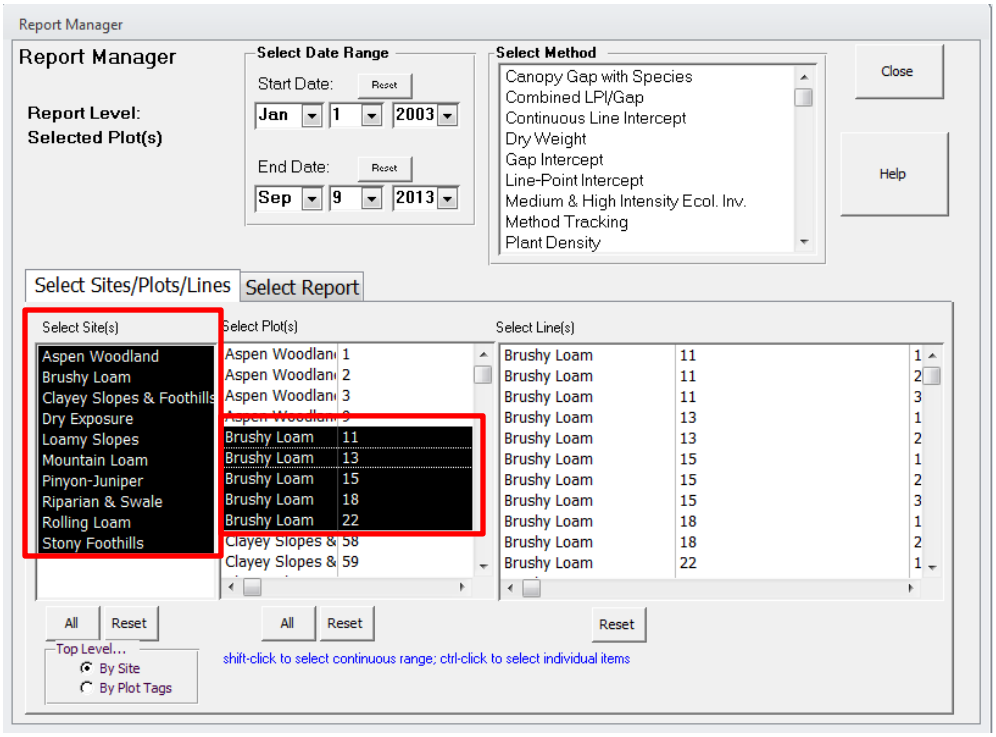
After data collection and quality control, the next step in monitoring is extracting data for analysis. This document will guide you through extracting the AIM core indicators and a few common supplemental indicators from DIMA. Through both custom queries and formal reports, there are a variety of ways to summarize the data collected in DIMA. This document describes the methods for extracting basic information from DIMA reports to describe the Core AIM indicators. The indicators covered in this document are:

- Bare ground
- Vegetation composition
- Species of Management Concern
- Size of inter-canopy gaps
- Vegetation height
- Nonnative invasive plant species
- Soil Stability

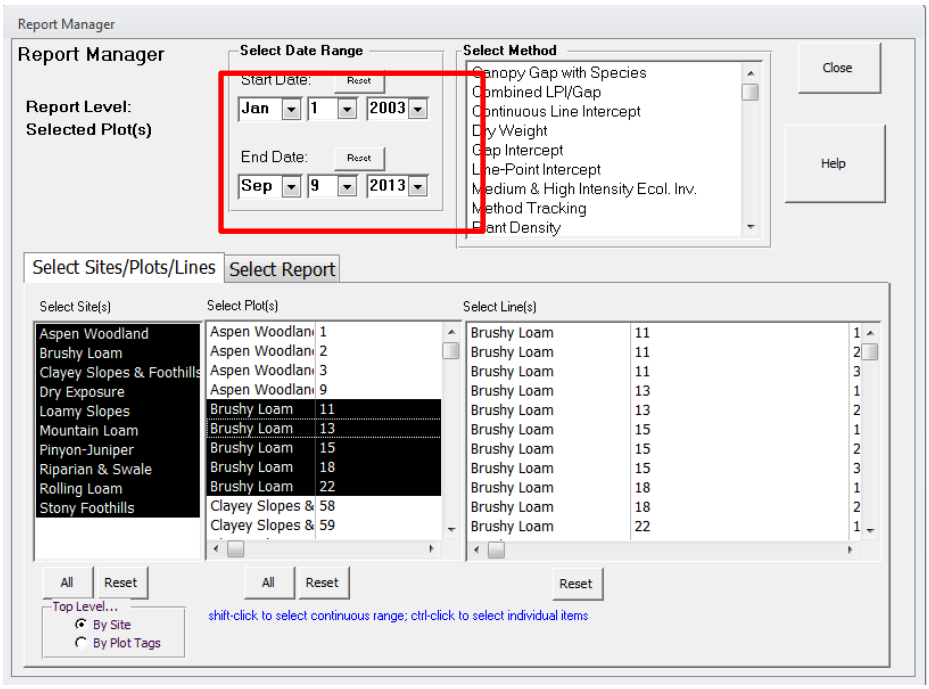
Step 1: Access Reports in DIMA



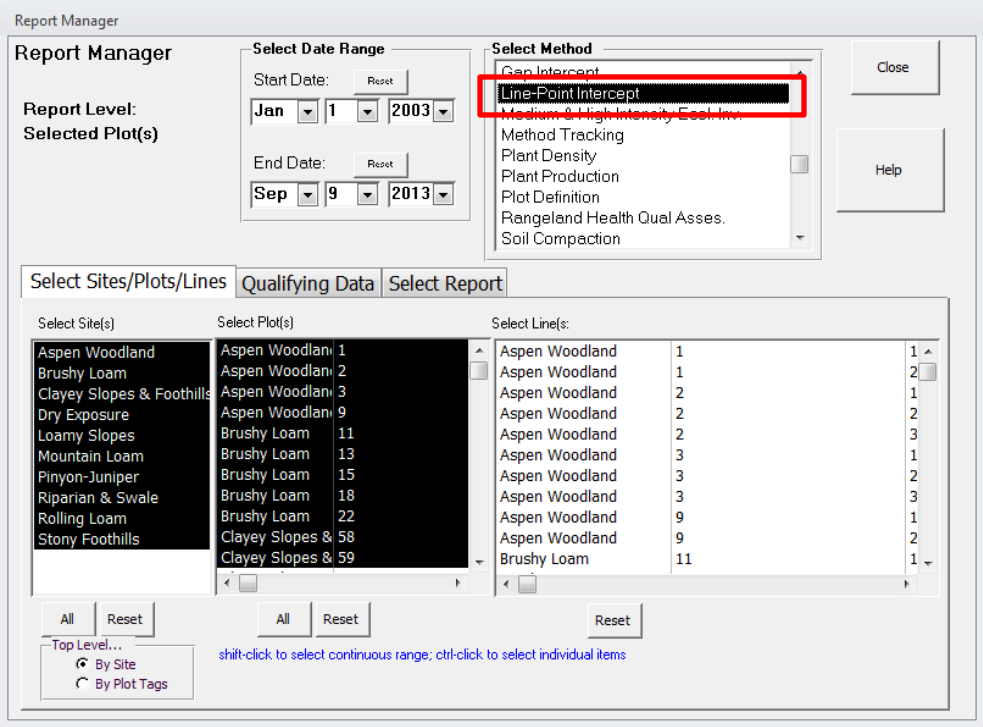
Step 2: Select your Site(s), Plot(s), and Line(s). The sites and plots you select will depend on the area of interest and your management question.



Step 3: Select the date range. The default date range will encompass all dates possible within your dataset



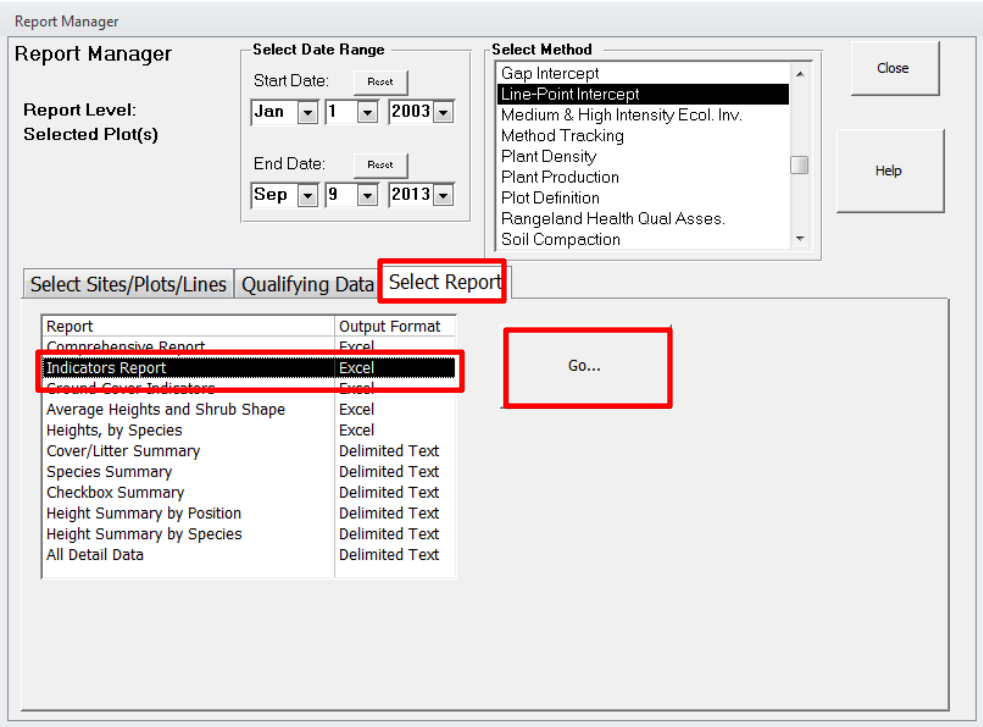
Step 4: Select the method you would like to summarize in a report



Step 5: Select the report. This will vary by your indicator of interest. See the following steps for each indicator:

- Step 6: Bare ground
- Step 6: Vegetation composition
- Step 6,7: Species of Management Concern
- Step 6,7: Nonnative invasive plant species
- Step 8: Size of inter-canopy gaps
- Step 9: Vegetation height
- Step 10: Soil Stability

Step 6: Bare ground and vegetation composition. Click on “Select Report” and then select the “Indicators Report” and hit “Go…”



Step 6.1 Select your indicators

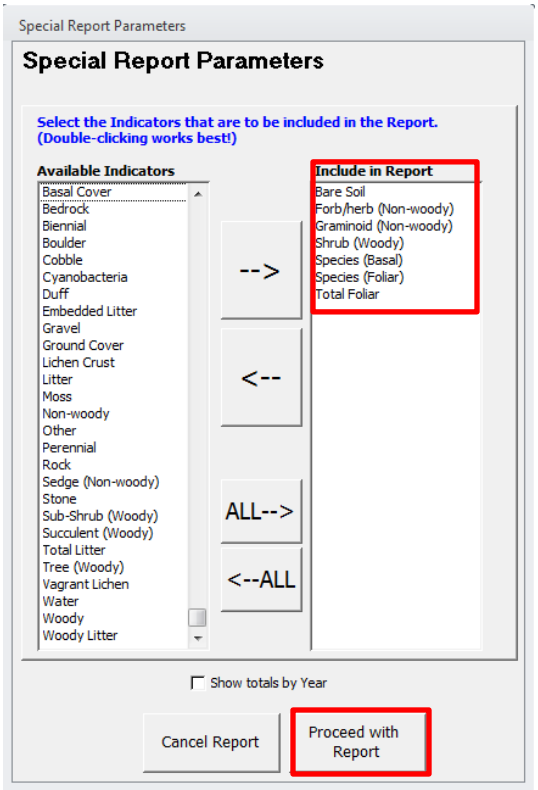
Double click on the indicators you want from “Available Indicators”

In DIMA, bare ground, non-native invasive plant species, species of management concern and vegetation composition can be summarized from the same Line-point Intercept Indicators Report using the “Species” and “Bare Soil” indicators.

Bare Ground (Bare Soil) = # points with "None" in top canopy, no litter in lower canopies and "Soil" in final column

And the formula for vegetation composition is:

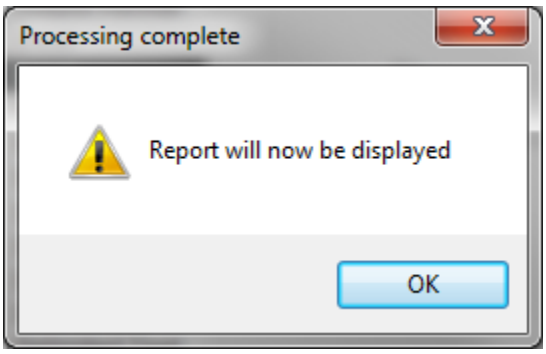
Species = # points w/ at least one hit of "Species A"



Other helpful indicators that can also be generated within this report include:

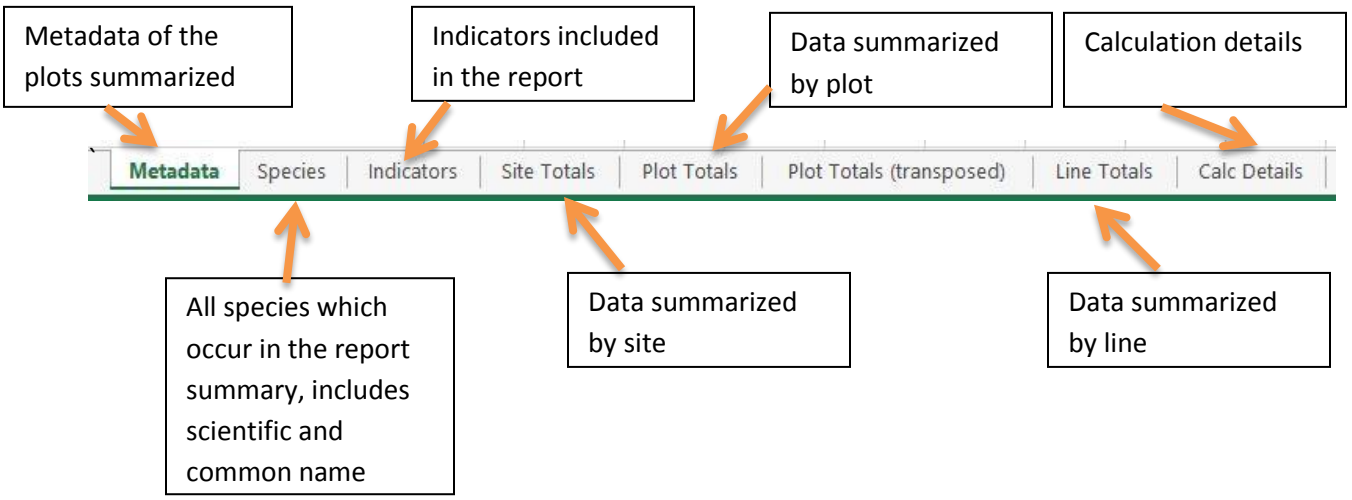
- Total Foliar Cover
- Vegetation cover by functional group (forb, graminoid, shrub, tree). *Note, in order for this information to be summarized, you must have added growth habit and duration information to the species list. See the DIMA Quickstart for instructions.*

Step 6.2 Select "Proceed with Report". Depending on the number of plots you would like to summarize, the report may require a few minutes of processing time. Once the calculations are complete you will see this message:

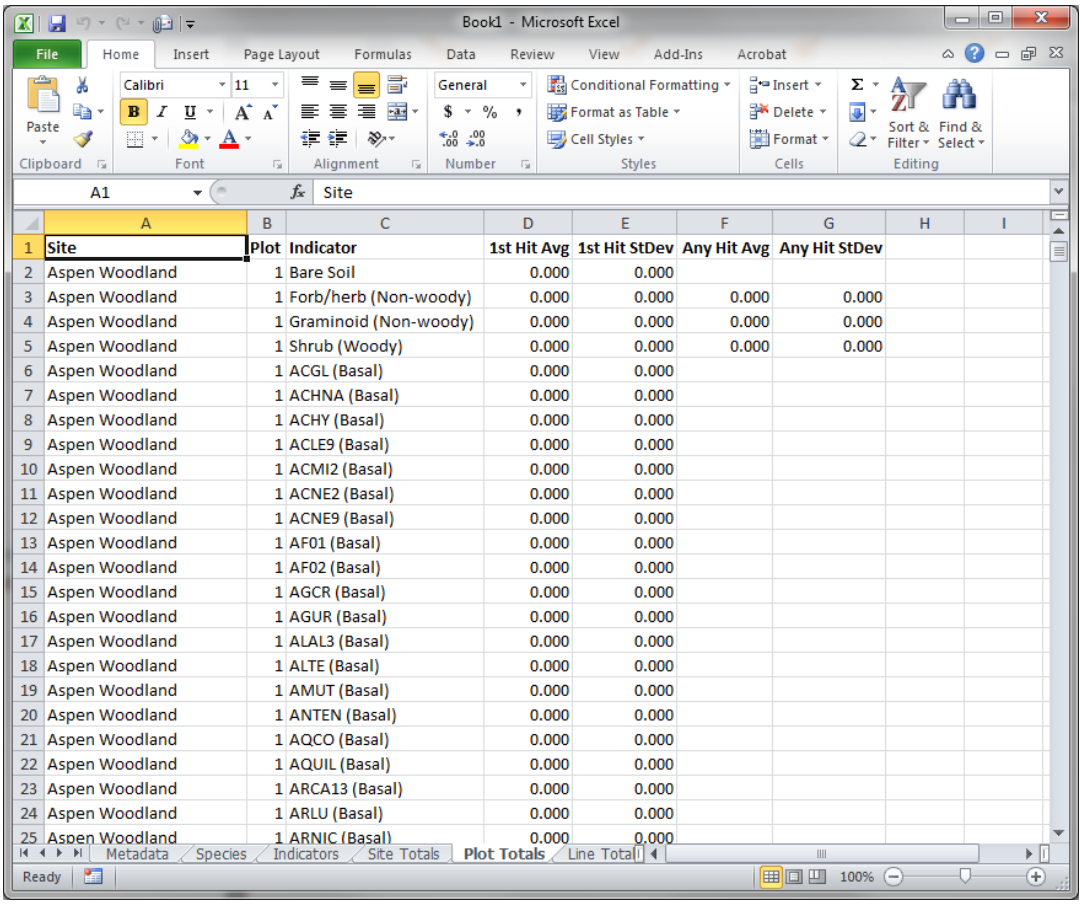


Select "OK" and an Excel file will open.

The Excel workbook will always have a standard set of worksheets:



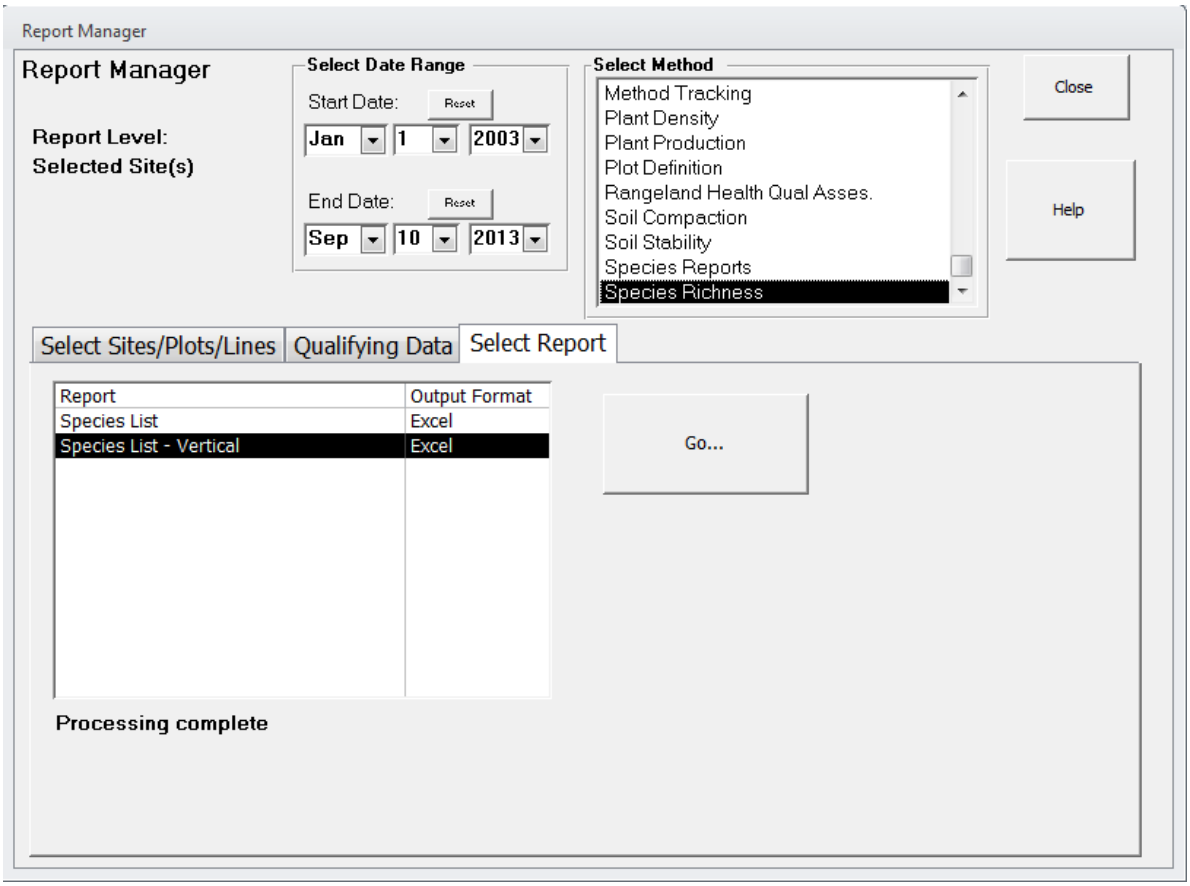
For most plot level reporting, you will work with the Plot Totals tab.



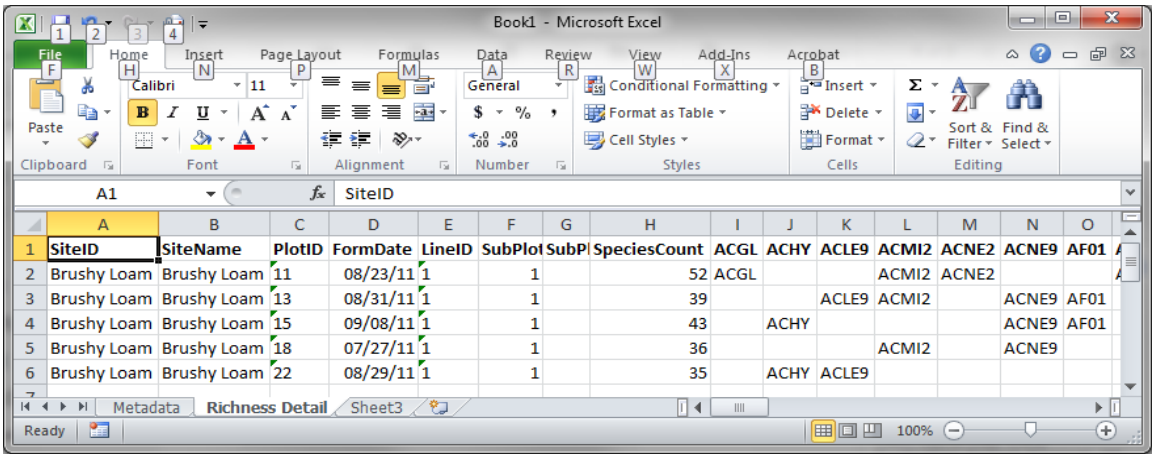
Site	Plot	Indicator	1st Hit Avg	1st Hit StDev	Any Hit Avg	Any Hit StDev
Aspen Woodland	1	Bare Soil	0.000	0.000		
Aspen Woodland	1	Forb/herb (Non-woody)	0.000	0.000	0.000	0.000
Aspen Woodland	1	Graminoid (Non-woody)	0.000	0.000	0.000	0.000
Aspen Woodland	1	Shrub (Woody)	0.000	0.000	0.000	0.000
Aspen Woodland	1	ACGL (Basal)	0.000	0.000		
Aspen Woodland	1	ACHNA (Basal)	0.000	0.000		
Aspen Woodland	1	ACHY (Basal)	0.000	0.000		
Aspen Woodland	1	ACLE9 (Basal)	0.000	0.000		
Aspen Woodland	1	ACMI2 (Basal)	0.000	0.000		
Aspen Woodland	1	ACNE2 (Basal)	0.000	0.000		
Aspen Woodland	1	ACNE9 (Basal)	0.000	0.000		
Aspen Woodland	1	AF01 (Basal)	0.000	0.000		
Aspen Woodland	1	AF02 (Basal)	0.000	0.000		
Aspen Woodland	1	AGCR (Basal)	0.000	0.000		
Aspen Woodland	1	AGUR (Basal)	0.000	0.000		
Aspen Woodland	1	ALAL3 (Basal)	0.000	0.000		
Aspen Woodland	1	ALTE (Basal)	0.000	0.000		
Aspen Woodland	1	AMUT (Basal)	0.000	0.000		
Aspen Woodland	1	ANTEN (Basal)	0.000	0.000		
Aspen Woodland	1	AQCO (Basal)	0.000	0.000		
Aspen Woodland	1	AQUIL (Basal)	0.000	0.000		
Aspen Woodland	1	ARCA13 (Basal)	0.000	0.000		
Aspen Woodland	1	ARLU (Basal)	0.000	0.000		
Aspen Woodland	1	ARNIC (Basal)	0.000	0.000		

Step 7: Species Inventory Report

The species inventory report is accessed through the Species Richness Method and can be used to detect the presence/absence of non-native invasive species and species of management concern. There are two reports, the “Species List” which lists all selected plots, the species count and the actual species recorded on a horizontal access. The “Species List-Vertical” which lists each species recorded per plot in a separate worksheet in Excel

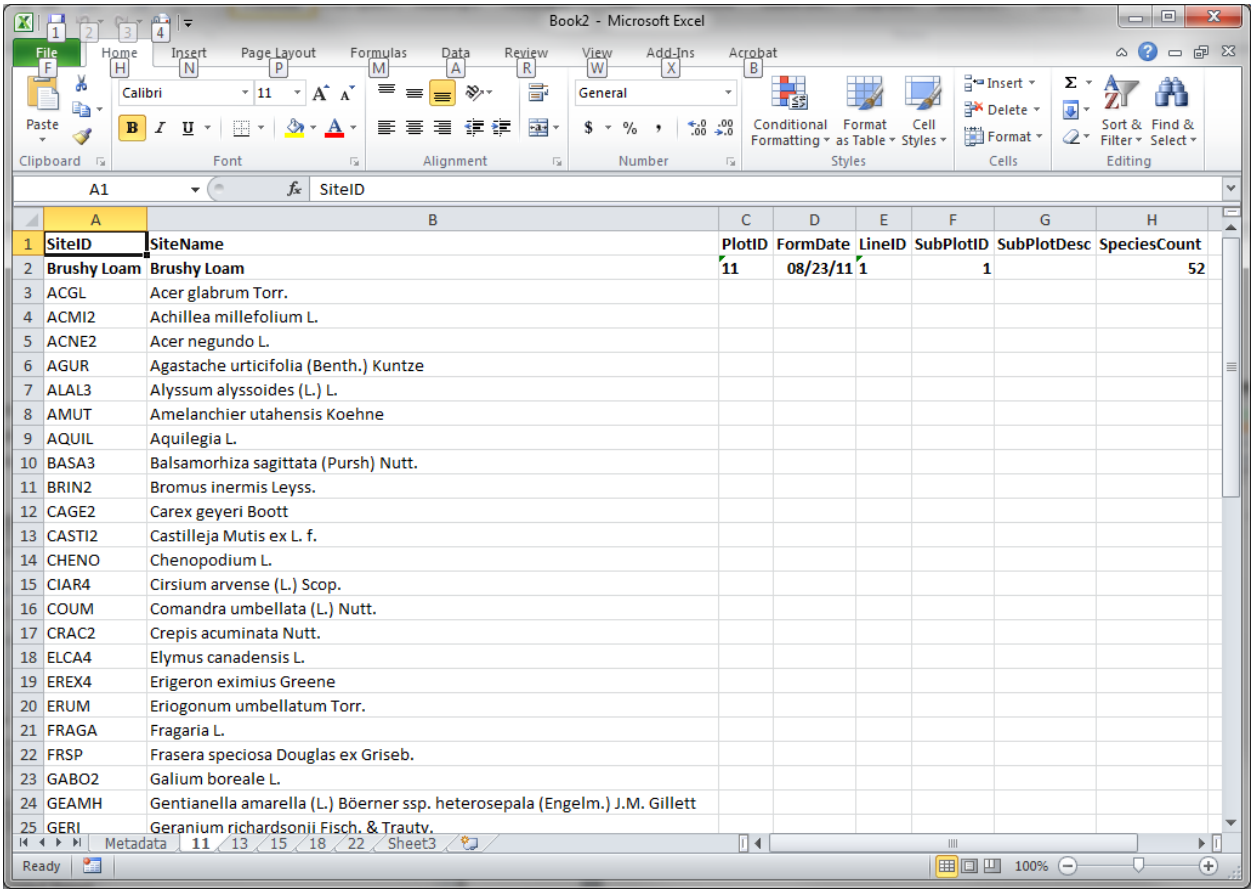


Species List Example Report



SiteID	SiteName	PlotID	FormDate	LineID	SubPlot	SubP	SpeciesCount	ACGL	ACHY	ACLE9	ACMI2	ACNE2	ACNE9	AF01
Brushy Loam	Brushy Loam	11	08/23/11	1	1		52	ACGL			ACMI2	ACNE2		
Brushy Loam	Brushy Loam	13	08/31/11	1	1		39			ACLE9	ACMI2		ACNE9	AF01
Brushy Loam	Brushy Loam	15	09/08/11	1	1		43		ACHY				ACNE9	AF01
Brushy Loam	Brushy Loam	18	07/27/11	1	1		36				ACMI2		ACNE9	
Brushy Loam	Brushy Loam	22	08/29/11	1	1		35		ACHY	ACLE9				

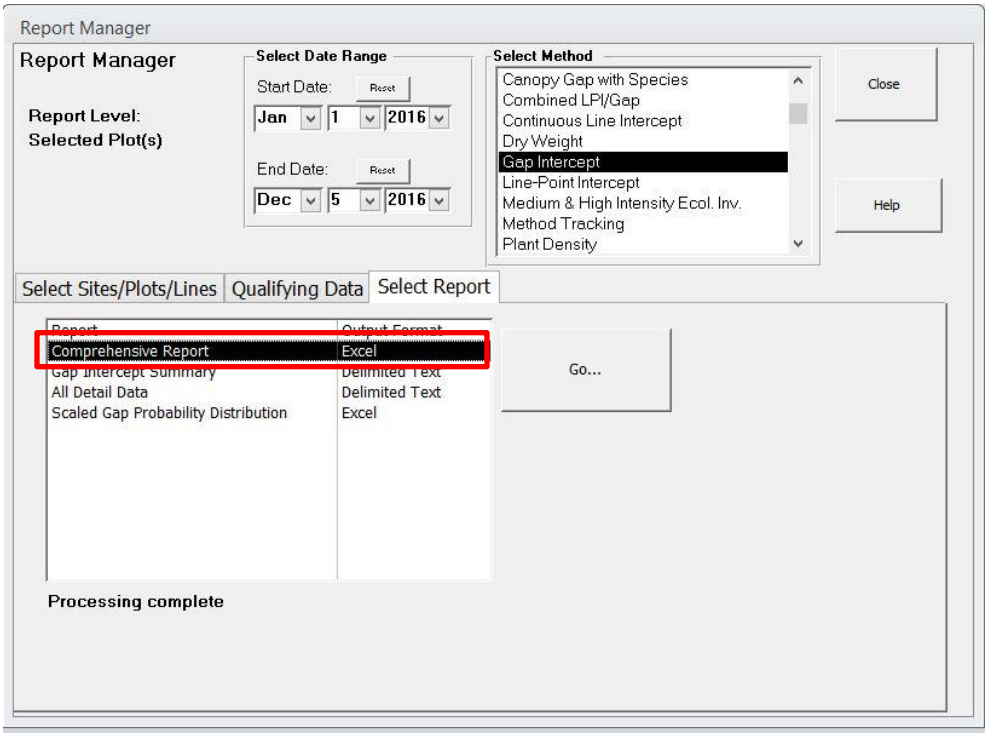
Species List-Vertical Example Report



	A	B	C	D	E	F	G	H
1	**SiteID**	**SiteName**	**PlotID**	**FormDate**	**LineID**	**SubPlotID**	**SubPlotDesc**	**SpeciesCount**
2	**Brushy Loam**	**Brushy Loam**	**11**	**08/23/11**	**1**	**1**		**52**
3	ACGL	Acer glabrum Torr.						
4	ACMI2	Achillea millefolium L.						
5	ACNE2	Acer negundo L.						
6	AGUR	Agastache urticifolia (Benth.) Kuntze						
7	ALAL3	Alyssum alyssoides (L.) L.						
8	AMUT	Amelanchier utahensis Koehne						
9	AQUIL	Aquilegia L.						
10	BASA3	Balsamorhiza sagittata (Pursh) Nutt.						
11	BRIN2	Bromus inermis Leyss.						
12	CAGE2	Carex geyeri Boott						
13	CASTI2	Castilleja Mutis ex L. f.						
14	CHENO	Chenopodium L.						
15	CIAR4	Cirsium arvense (L.) Scop.						
16	COUM	Comandra umbellata (L.) Nutt.						
17	CRAC2	Crepis acuminata Nutt.						
18	ELCA4	Elymus canadensis L.						
19	EREX4	Erigeron eximius Greene						
20	ERUM	Eriogonum umbellatum Torr.						
21	FRAGA	Fragaria L.						
22	FRSP	Frasera speciosa Douglas ex Griseb.						
23	GABO2	Galium boreale L.						
24	GEAMH	Gentianella amarella (L.) Böerner ssp. heterosepala (Engelm.) J.M. Gillett						
25	GERI	Geranium richardsonii Fisch. & Trautv.						

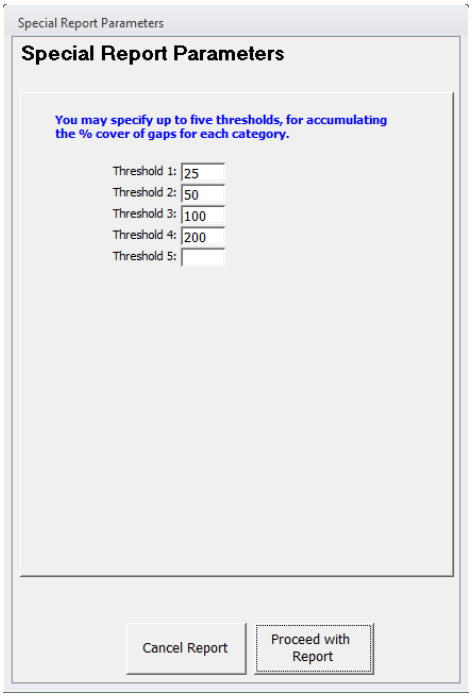
Step 8: Size of intercanopy gaps

The size of intercanopy gaps can be generated from the Gap Intercept Method Report.

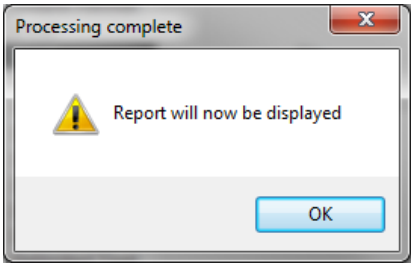


Step 8.1 Select the Comprehensive Report and click “Go…”

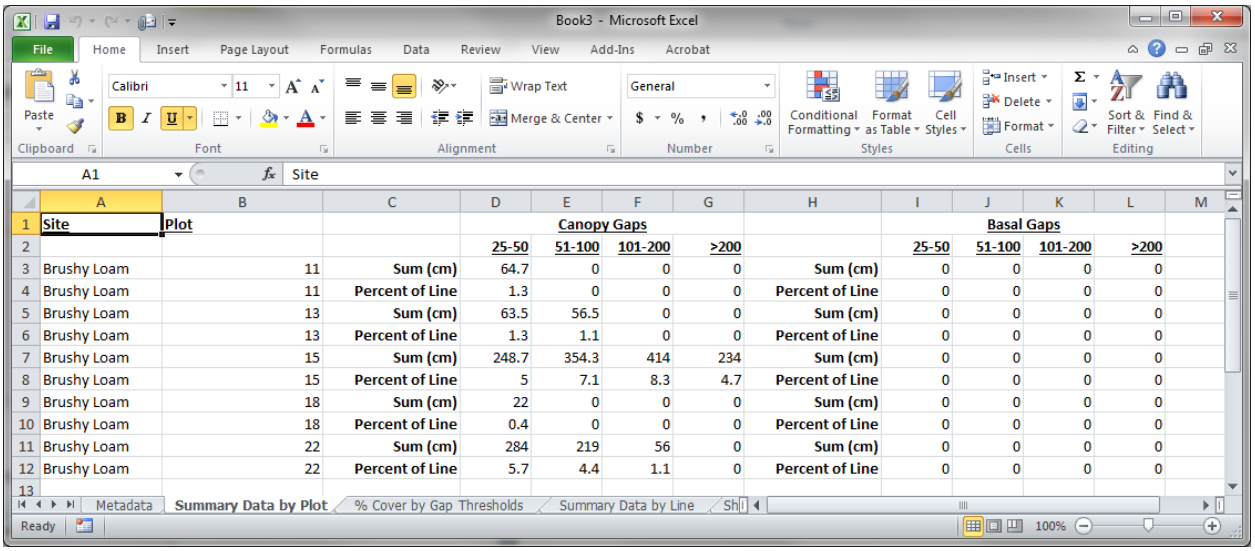
Step 8.2 Set gap category thresholds. Conventional categories are 25-50, 51-100, 101-200, >200 and will be used if no other values are provided. After you add your thresholds, click “Proceed with Report”.



You will get a message saying “Report will now be displayed” and then click “OK”



Example Canopy Gap Report



Book3 - Microsoft Excel

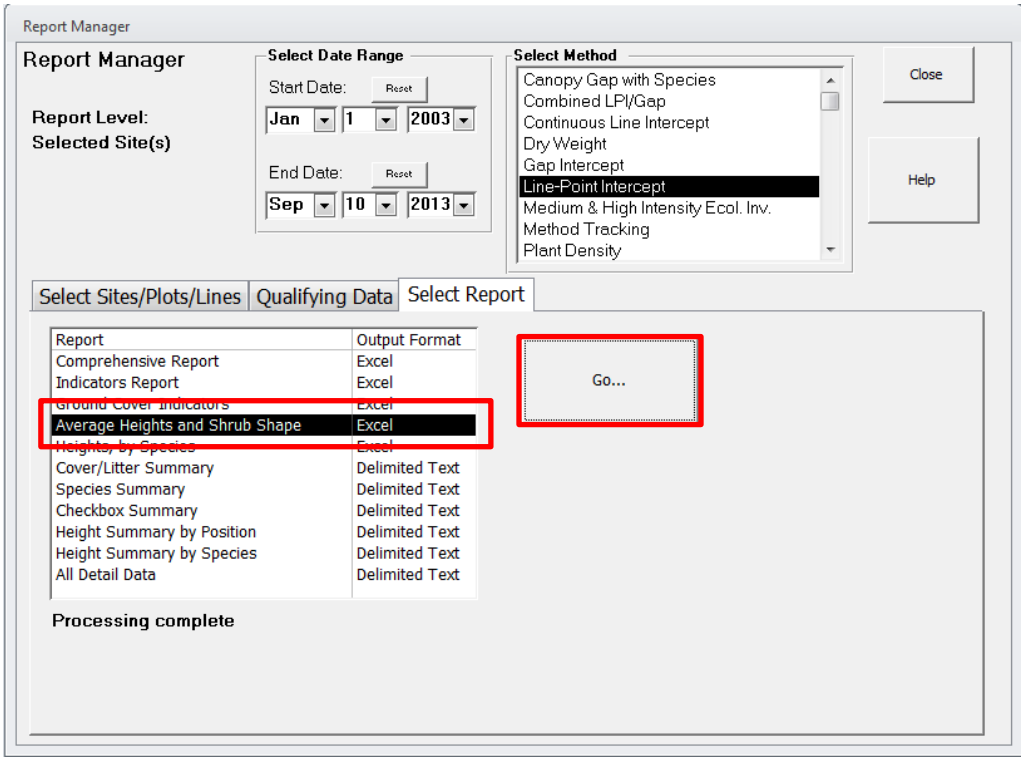
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Site	Plot				Canopy Gaps					Basal Gaps		
2				25-50	51-100	101-200	>200		25-50	51-100	101-200	>200	
3	Brushy Loam	11	Sum (cm)	64.7	0	0	0	Sum (cm)	0	0	0	0	
4	Brushy Loam	11	Percent of Line	1.3	0	0	0	Percent of Line	0	0	0	0	
5	Brushy Loam	13	Sum (cm)	63.5	56.5	0	0	Sum (cm)	0	0	0	0	
6	Brushy Loam	13	Percent of Line	1.3	1.1	0	0	Percent of Line	0	0	0	0	
7	Brushy Loam	15	Sum (cm)	248.7	354.3	414	234	Sum (cm)	0	0	0	0	
8	Brushy Loam	15	Percent of Line	5	7.1	8.3	4.7	Percent of Line	0	0	0	0	
9	Brushy Loam	18	Sum (cm)	22	0	0	0	Sum (cm)	0	0	0	0	
10	Brushy Loam	18	Percent of Line	0.4	0	0	0	Percent of Line	0	0	0	0	
11	Brushy Loam	22	Sum (cm)	284	219	56	0	Sum (cm)	0	0	0	0	
12	Brushy Loam	22	Percent of Line	5.7	4.4	1.1	0	Percent of Line	0	0	0	0	
13													

Metadata | Summary Data by Plot | % Cover by Gap Thresholds | Summary Data by Line

Ready

Step 9: Vegetation Height

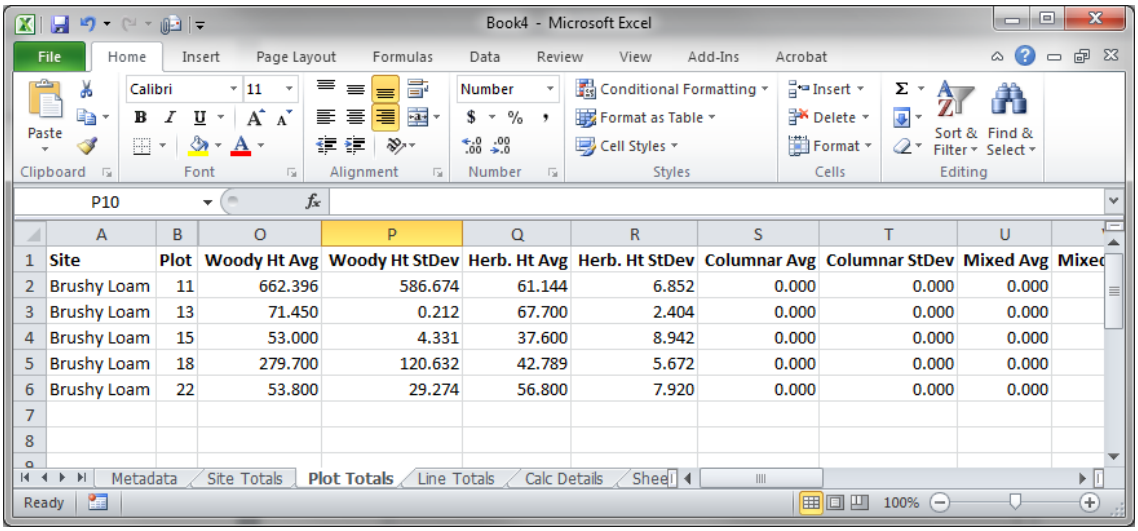
Step 9.1 Select the “Line-Point Intercept” Method and the “Average Heights and Shrub Shape” Excel Report and then click “Go…”



You will get a message saying “Report will now be displayed” and then click “OK”

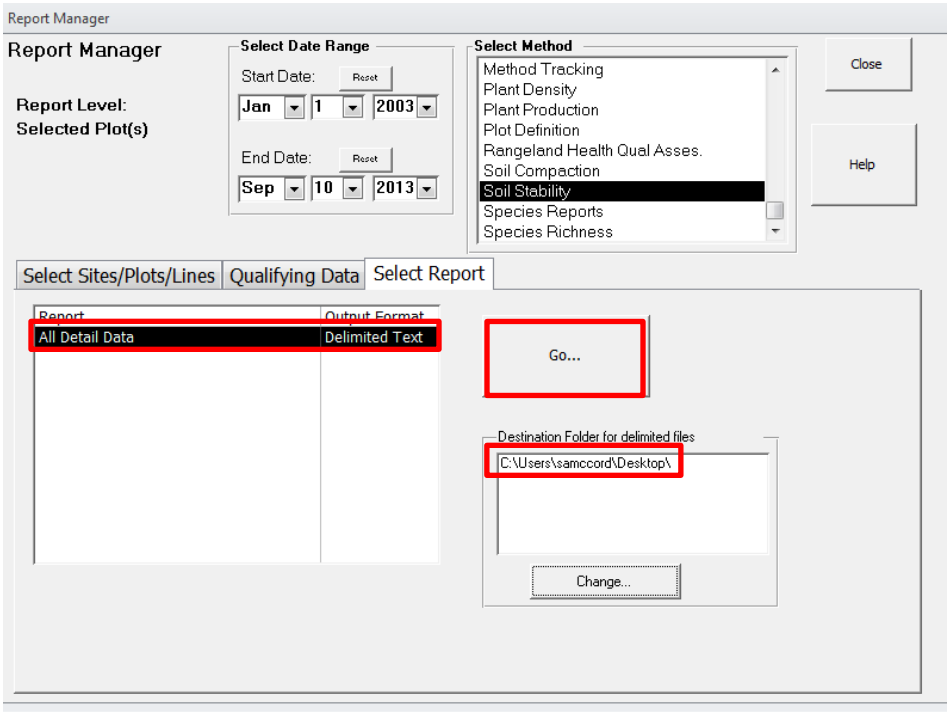
Example Height Report—you need to scroll to the right to see the Woody/Herbaceous height data

Note:In 2011 the woody/herbaceous height fields did not exist in DIMA. Convention was to record woody height in the “Top Layer” and Herbaceous Height in the “1st Lower Layer”.



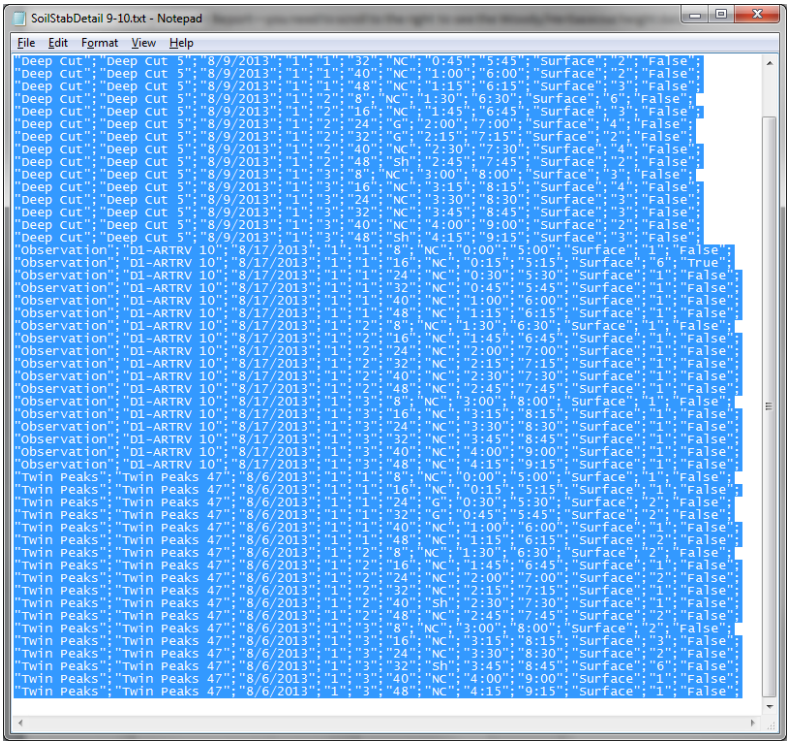
Step 10: Soil Stability Report

Step 10.1 Select the Soil Stability Method and the “All Details Data Report” and add a destination folder.

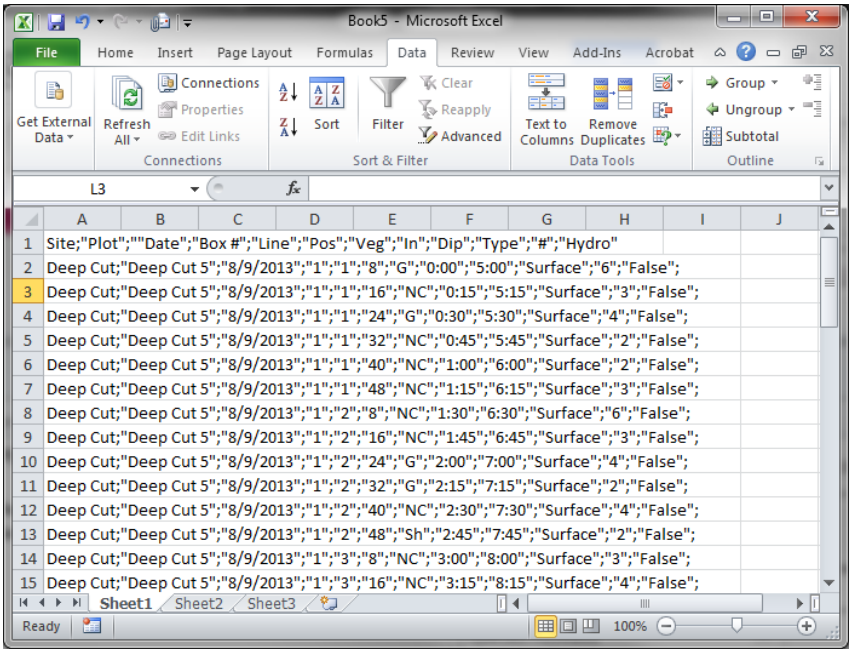


Step 10.2 Select “Go”. A delimited text file will open. There are several ways to convert a delimited text file into an Excel document. The simplest is to open the file from Excel and use steps 10.6 onward described below. An alternative method starts at 10.3.

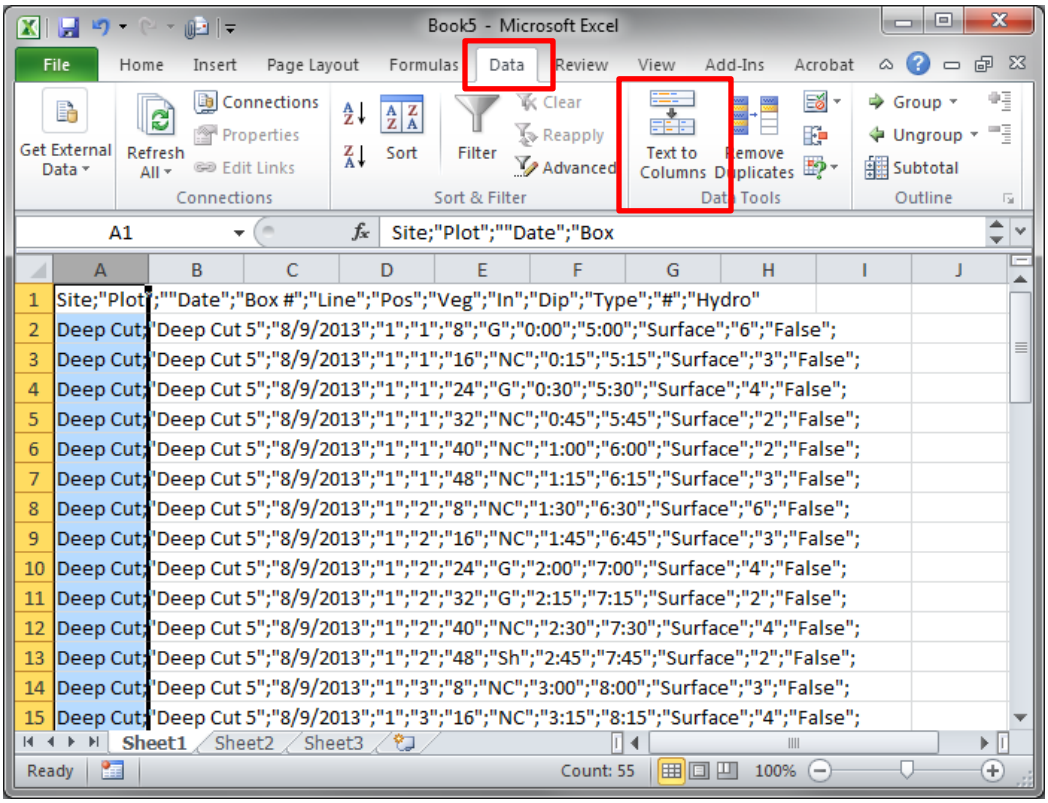
Step 10.3 Select all of the content in the text file



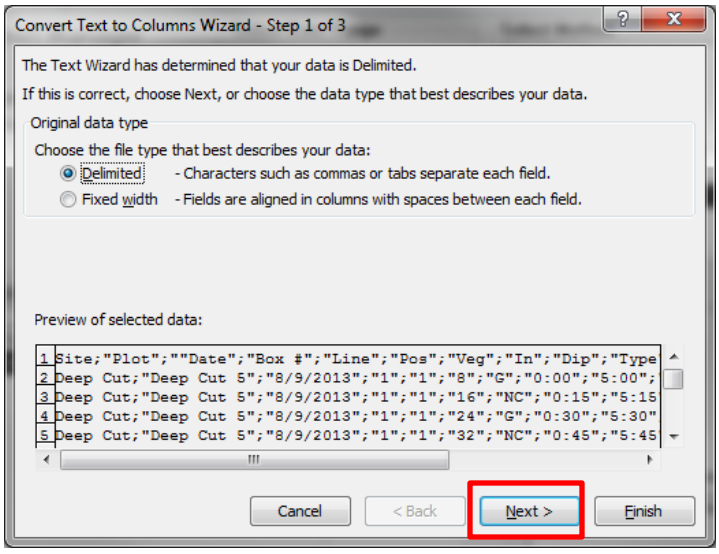
Step 10.4 Open an Excel workbook and copy the text into the Excel file



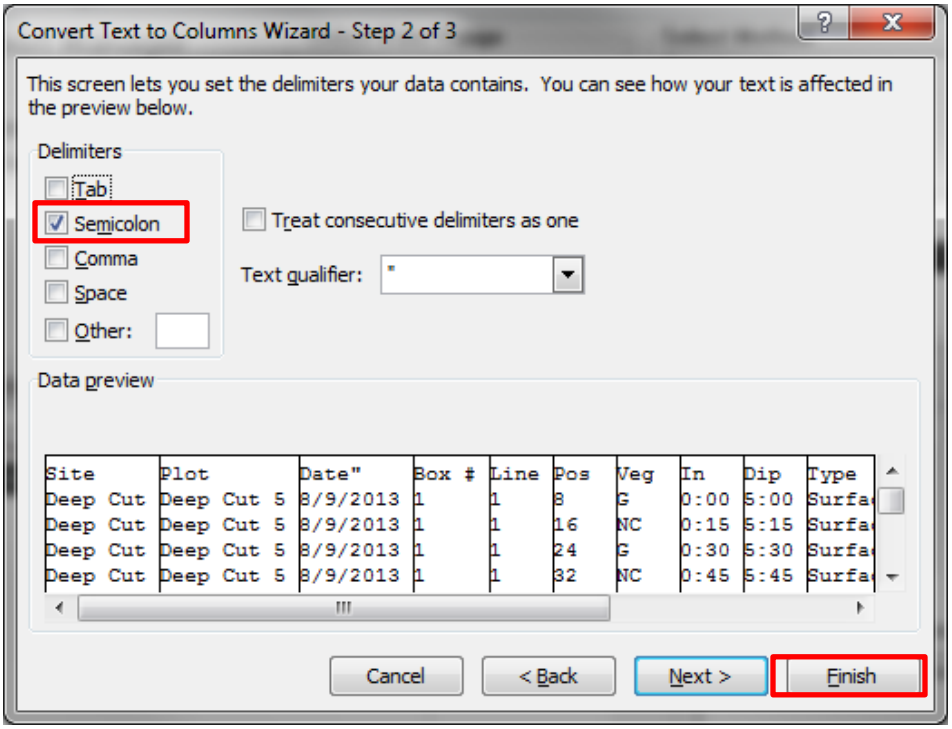
Step 10.5: Currently the information for each line is housed in a single cell. Select the Data tab, the first column of data and then the “Text to Columns” button.



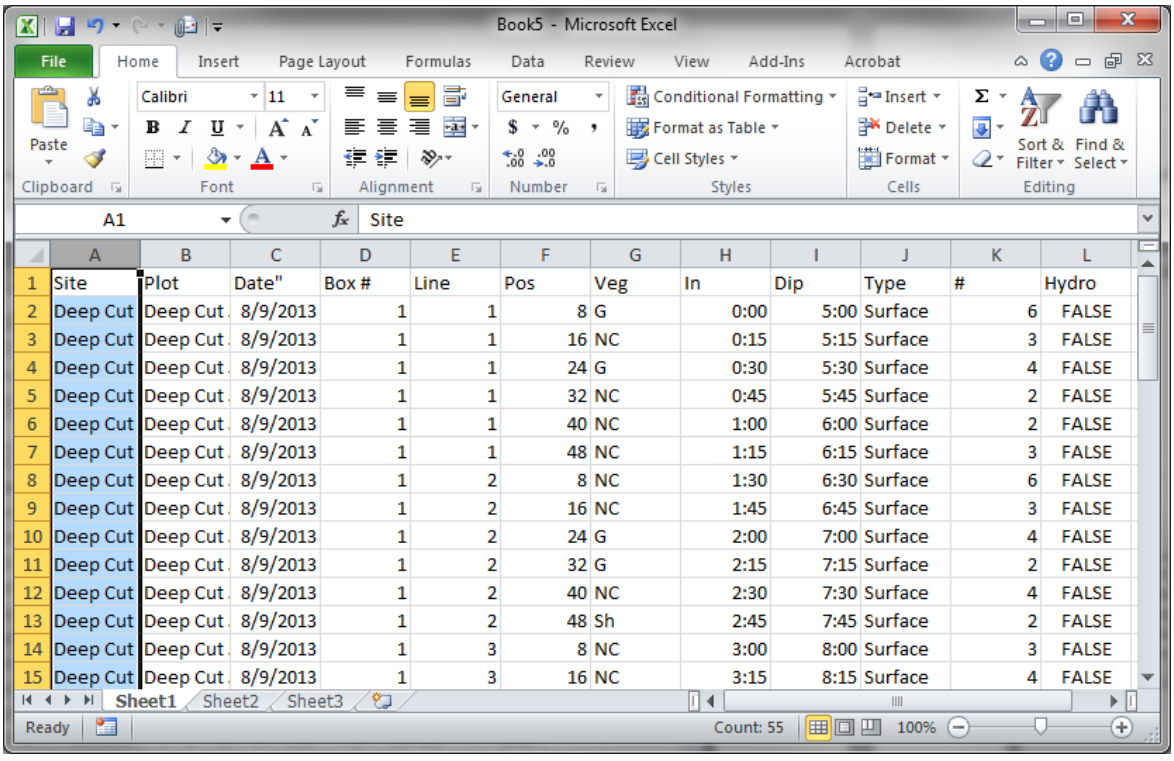
Step 10.6 When the Convert Text to Column Wizard Pops up, select next:



Step 10.7 Check the “Semicolon box” under Delimiters and click “Finish”



Step 10.8 The soil stability values will now be summarized per line for each plot



	A	B	C	D	E	F	G	H	I	J	K	L
1	Site	Plot	Date"	Box #	Line	Pos	Veg	In	Dip	Type	#	Hydro
2	Deep Cut	Deep Cut	8/9/2013	1	1	8	G	0:00	5:00	Surface	6	FALSE
3	Deep Cut	Deep Cut	8/9/2013	1	1	16	NC	0:15	5:15	Surface	3	FALSE
4	Deep Cut	Deep Cut	8/9/2013	1	1	24	G	0:30	5:30	Surface	4	FALSE
5	Deep Cut	Deep Cut	8/9/2013	1	1	32	NC	0:45	5:45	Surface	2	FALSE
6	Deep Cut	Deep Cut	8/9/2013	1	1	40	NC	1:00	6:00	Surface	2	FALSE
7	Deep Cut	Deep Cut	8/9/2013	1	1	48	NC	1:15	6:15	Surface	3	FALSE
8	Deep Cut	Deep Cut	8/9/2013	1	2	8	NC	1:30	6:30	Surface	6	FALSE
9	Deep Cut	Deep Cut	8/9/2013	1	2	16	NC	1:45	6:45	Surface	3	FALSE
10	Deep Cut	Deep Cut	8/9/2013	1	2	24	G	2:00	7:00	Surface	4	FALSE
11	Deep Cut	Deep Cut	8/9/2013	1	2	32	G	2:15	7:15	Surface	2	FALSE
12	Deep Cut	Deep Cut	8/9/2013	1	2	40	NC	2:30	7:30	Surface	4	FALSE
13	Deep Cut	Deep Cut	8/9/2013	1	2	48	Sh	2:45	7:45	Surface	2	FALSE
14	Deep Cut	Deep Cut	8/9/2013	1	3	8	NC	3:00	8:00	Surface	3	FALSE
15	Deep Cut	Deep Cut	8/9/2013	1	3	16	NC	3:15	8:15	Surface	4	FALSE

Note, if you would like to join all of the indicators together in a single table, generate the Plot Definition report. Make sure all of the data tables you are joining are summarized by the same unit (site, plot, or line). Import all of the tables into a database in Access or ArcGIS. Use the Plot ID as the "Join" link. If you have duplicate plot numbers, concatenate the site and plot IDs to create a unique ID value. This process will be described in further detail in a separate document.

Your organization may have completed this step for you (e.g., BLM's TerrADat), so be sure to ask before completing these steps.

Contacts

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