Animal Disease Spread Model (ADSM) Text Support Document for Training

The slide-based training was designed to optimize visual interest. This format does not always create a slide bank that is printer-friendly. In some sections, there are many images and little text. This text support document is intended to be a printer-friendly version of the slides that can be used as a reference. This document is not intended to take the place of main training slides.

Training 3 Getting Started

Slide	Image	Text
1	Laying Hens	Animal Disease Spread Model Getting Started: Installing ADSM, starting a scenario, and uploading a population
2	ADSM Application Sample Scenario with Outputs	Table of Contents Installing ADSM Navigation Tabs Administrative Panel Starting a New Scenario What's Next
3	No Image	Document Conventions The following conventions are used throughout the training modules: ***TRAINING MODULES*** other than the one you are currently in will use all capital letters, bold face, italics and underline. *Rhetorical questions* and *extra notes* will be in orange italics. Conventions applying to the ADSM application are: Navigation tabs on right and Admin panels on left are designated with an underline. Examples are Project Panel or Population tab. Items with an action on click, such as [Apply] Button or [Save As] icon are enclosed in square brackets. *Parameter fields* (inputs) are in blue italics and *Variables (*outputs) are in green italics. Navigation Tabs > *Parameter field* indicates to go to the given navigation tab to find the given field. Hyperlinks appear in bright green type with underline http://navadmc.github.io/ADSM/
4	Gear Section Break	Installing ADSM
5	Gear Image	Downloading ADSM ADSM is currently available at https://github.com/NAVADMC/ADSM/releases/latest The Install process will create a menu item and a new folder in your file structure called the ADSM Workspace. The default location for the ADSM Workspace is in the "My Documents" folder. Users may select to put the ADSM Workspace into a different folder or run on a portable storage device (e.g., flash drive).
6	USB cord	Using Portable Storage

		The purpose of having a portable application is to allow you to put the application wherever you want. Be aware that an application installation on a USB flash drive and having your ADSM workspace on the USB flash drive could slow down the application when it is executing a scenario. In fact, it can slow down so much that a "Database Locked" error can occur. To work around this, you can put your output (ADSM Workspace) on the portable drive and the ADSM application on another (Desktop), or vice versa.
7	ADSM Overlay	The overlay, shown here in blue, will be visible the first time you open ADSM. Use the stacked files in the upper right to toggle off this feature.
8	Gear Section Break	Administrative Panel
9	Image of Admin Panel	The Administrative Panel contains: Project Panel Settings Panel Production Type Panel Functions Panel Documentation Panel SQL Panel *The training called ADSM Administration will cover the Administrative Panel in detail.*
10	Gear Section Break	Navigation Tabs
11	ADSM Scenario description	Navigation tabs, located in the left panel of the application, are used to enter scenario specific parameters about disease transmission and control activities. Tabs are presented in logical order, but no specific order is required for parameter entry. The navigation tab provides a visual cue to signal which parameter blocks you have completed. The tab will be yellow if the parameter entry is incomplete and green if the parameter entry is complete for that tab. Not all parameters are required to run the simulation, so the application may be able to run with yellow tabs. Validating the scenario will prompt a message to help you understand what is missing and if you can proceed with running the simulation.
12	ADSM Scenario description	The Scenario Description box allows you to provide documentation on the simulation you are running. A scenario breaks down into 3 main components for input into the simulation: Population Parameters Disease Parameters Control Parameters
13	ADSM Scenario description	Depending on the type of question that you are trying to answer, you can modify these main components and do comparisons: For example, changing the Population and keeping all the other parameters the same would let you find if the disease and

		control strategies behave differently in different geographical areas that might have different animal densities. Another example could be keeping the Population and Disease parameters the same and changing Control parameters to evaluate the effect of different control strategies on an outbreak. Working through the parameters that feed into a model provides a useful exercise in understanding all the complexities to consider when using simulation to evaluate disease spread and control options.
14	Gear Section Break	Starting a New Scenario
15	Hereford cattle on the range	Let's get started on this journey. Photo credit Sabrina Reed
16	ADSM Scenario description	Starting a Scenario Initially, the scenario will open to a blank scenario. A description field is provided to enter details about the simulation. This description lets you document the scenario, such as the question you are trying to answer, where the population came from, or other important information that would be useful when you refer back to this scenario. Selecting *Apply* **before** you leave the page is necessary to save changes on each page.
17	ADSM Scenario description with project panel fly out	Saving and Duplicating Scenarios The very first time you open ADSM, the scenario file will be automatically named "Blank.db". Use the Project Panel and select the *Save As* icon to rename the scenario file to a name of your choosing and save. You can use this same process to duplicate a scenario and select *Save As* to a name that is meaningful to you. *Note that selecting Save will overwrite an existing file if the same name is used.*
18	ADSM Scenario description	This scenario has been saved as "TrainingScenario." A description has been added and saved, using the *Apply* button. Let's move on and add a *Population* by selecting the tab.
19	Population Tab 2 views	Population Tab If you need to add a population, the window looks like this. If a population is already loaded, as in the Sample Scenario, the window displays the population.
20	Population Tab In Add mode	Adding a Population A prompt will ask you to choose the population file. There are 2 different actions that can happen when loading a population. 1) If your population source file is outside the ADSM Workspace, select **Choose File** and a navigation window will open. Navigate to the location of the file that is to be imported. Select the file, and the filename will replace the text "No file chosen." **Use Import a Population (XML or CSV)** and the file import will begin.

		Depending on the size of the population and the speed of your PC, this import could take a while. The Development Team's test file with 363,000 units takes about 10 minutes. 2) If the population source file has already been moved into the ADSM Workspace, the import will begin as soon as you select it from the list of available files. *In this example there are several population files already copied into the ADSM Workspace.*
21	ADSM Sample Scenario Population	Sample Population If a population has already been added, as in the Sample Scenario, the population screen will display a visualization and details. The Edit population link in the bottom right corner allows changes to be made to the population file within the application.
22	ADSM Sample Scenario Population	Replace Population The population can also be replaced using the "Replace Population" link at the top. If parameter blocks have already been created, they will be retained. However, assignments to specific production types, Vaccination Triggers and Vaccination Rings parameters will be deleted. *The deletion happens to the parameters that are associated to a specific production type. This functionality provides maximum flexibility in changing a population and retaining most parameters. The parameters can be re-assigned to the new production types when the new population is imported.*
23	ADSM Sample Scenario Population in edit mode	When you choose to edit the population, a new window opens that is similar to the main population window. This edit method keeps accidental changes from happening in the main window. Changes can be made on any individual unit to any field in the population, such as changing the initial disease state or changing the production type. Selecting *Apply* is necessary to save changes.
24	Feedlot cattle eating	Summary This training module has covered **describing your scenario** and **managing your population**. Photo Credit NAHMS Archive – Judy Rodriguez
25	Gear Section Break	What's Next
26	Cow and calves in snow	Parameters related to disease will be covered in the next training. Photo credit FEMA library
27	Flock of Sheep	**Join the flock!** **Learn more about ADSM or try an example** **ADSM is currently available** at https://github.com/NAVADMC/ADSM/releases/latest Try the sample scenario https://github.com/NAVADMC/ADSM/wiki/A-Quick-Start-Guide:-Running-the-sample-scenario Read the wiki pages link https://github.com/NAVADMC/ADSM/wiki
28	Goat on with green foliage	What's Next?

		Addition training materials will be posted at http://navadmc.github.io/ADSM/ Training will include: Overview Populations and Production Types Getting Started Disease Parameters Control Parameters Output settings and Run Results Verification and Validation Vaccination Strategy Administration
29	Cows grazing with blue sky and green grass	The outcome of an ADSM simulation (as with any computer simulation model) depends heavily on the quality of the scenario input parameters, the assumptions of the modeler who created the scenario, and the capabilities and limitations of the model framework itself. The utility of disease models like those created with ADSM critically depends on input and interpretation of experts familiar with the behavior of disease within populations, and with the limitations, assumptions, and output of the model. While ADSM is available as a service to animal health communities, the ADSM team does not necessarily endorse results obtained with the ADSM application or any conclusions drawn from such results. Note that the parameters provided in the Sample Scenario are simple examples to clarify concepts in the application. These parameters do not represent any real population or disease event.
30	Cattle image	This work was funded in whole through Cooperative Agreement AP18VSCEAH00C005 with the University of Tennessee Department of Animal Science by the Animal and Plant Health Inspection Service, an agency of the United States Department of Agriculture. University of Tennessee Animal Science logo Photo credits Canva.com Ken Rager Photography Pinecroft Farms, Woodstock CT, Mariah Chapman FEMA Library Sabrina Reed NAHMS Archives - Judy Rodriguez
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