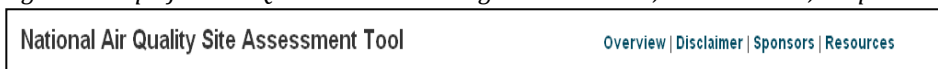


# National Air Quality Site Assessment Tool User's Manual

The National Air Quality Site Assessment Tool (NAQSAT) is available free of charge at <http://naqsat.tamu.edu>. The tool is used online and will not download onto the user's computer. Each NAQSAT session is assigned its own unique URL, which may be bookmarked and saved by the user. All NAQSAT sessions are maintained on the host computer and may be accessed by the user over the next 30 days for updates and additional comparisons. Be sure to write down or copy and save electronically this URL if you chose to make modifications. All information entered in the tool is confidential and cannot be traced back to the user.

## Introduction:

*Figure 1: Top of the NAQSAT screen showing the "Overview," "Disclaimer," "Sponsors" and "Resources" tabs.*



The top of the screen has four buttons on the right-hand corner. These buttons are available from the home page and any of the pages within a species.

The "Resources" tab provides links to additional information on air emissions and mitigation practices and a list of people ("State Contacts") who contributed to the development of the tool and are knowledgeable about its application.

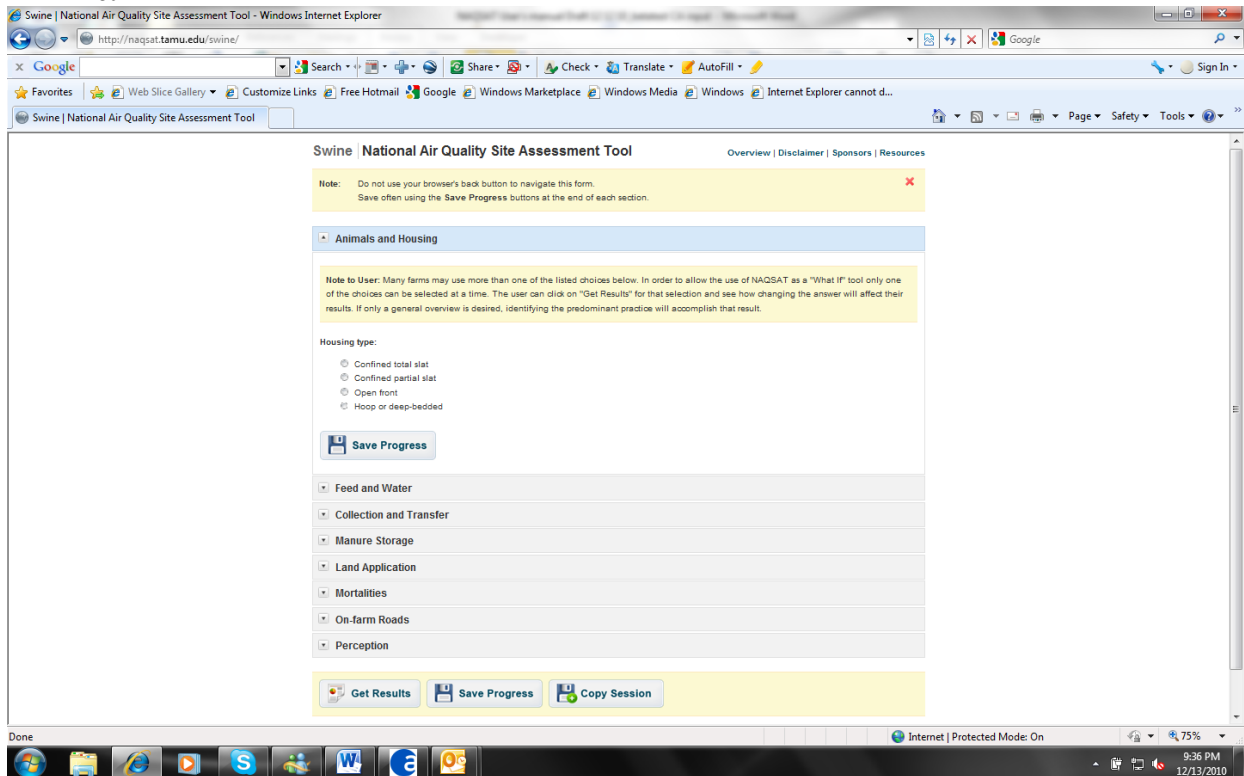
The "Sponsors" tab provides a list of contributors to the tool.

The "Disclaimer" tab spells out the usefulness and limitations of the tool as developed.

## Getting started with NAQSAT:

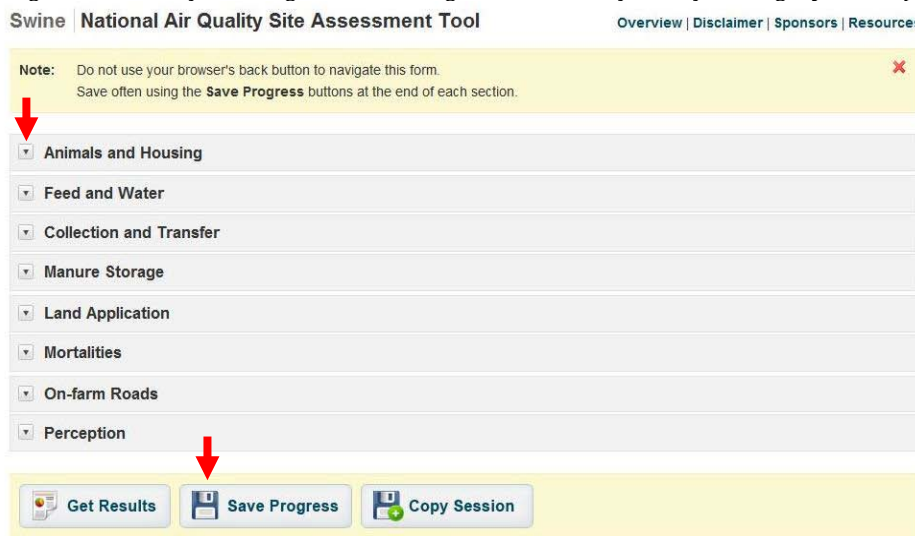
Select one of the six animal species listed on the right-hand side of the home page. On the next screen, listed on the left side, are the eight management categories that contribute to farm air emissions and are considered in the NAQSAT effectiveness report: Animals and housing, feed and water, collection and transfer, manure storage, land application, mortalities, on-farm roads and public perception. The first category, "Animals and Housing," is already open and will be displaying questions (see Figure 2).

Figure 2. Initial screen for swine analysis with “Animals and Housing” category opened and other categories minimized.



- Enter data into one category at a time.
- Do not use the browser’s “back” button to navigate between pages.
- Be sure to save your information at the end of each category.
- You may compress or expand categories by using the icon in front of the category (Figure 3).

Figure 3. View of all categories. Clicking on the icon in front of a category will expand that category.



Entering inputs:

- Click on the management category of interest.
- Only questions that pertain to the user’s operation will be asked.
- All questions that appear need to be answered.
- The program is set up to include or remove questions from view on the basis of user input. Answers to some questions will generate additional questions to be answered. The program may pause momentarily while those questions are populated.
- Pictures are used when a visual appraisal of current practices is most appropriate. Placing the cursor over the picture will generate a text description of the management practice. Clicking on the green X in the top right-hand corner of the picture will generate a larger view. Click the red X or outside of the photo to return to the data input screen.
- Save data after completing each category by clicking on the “Save Progress” button at the bottom of the page. Each NAQSAT session is assigned a unique URL. Bookmark the URL to facilitate easily returning to the NAQSAT session at a later date. Click on the red X to return to the input section and move to a new management category.
- ***Do not use the browser “back” button. Clicking on the browser “back” button will return you to the NAQSAT home page, and all unsaved inputs will be lost.***

Generating output:

- Before getting results, click on the “Save Progress” button to ensure that all inputs are saved.
- To generate results, click on the “Get Results” button at the bottom of the page (Figure 3).

Figure 4. Example output for a facility.



### **Interpreting results:**

- The effectiveness of current practices for each management category and each emission of concern is reflected by the percentage of green in the boxes under each emission. The larger the green area in each box, the more effective current management practices are and the fewer the opportunities to reduce emissions of that constituent in that management category (Figure 4).
- If all boxes are completely green, it does not mean there are no emissions. Fully green boxes simply indicate that the current management practices for the existing structural facilities provide few or no opportunities to reduce the emissions of that constituent in that management category.
- “Sheet not complete” identifies some questions required to complete the analysis that were not answered in that management category.

### **Returning to inputs:**

- Clicking on the red X in the upper right-hand corner will take users back to the input section.
- Return directly to a management category by clicking on that category on the “Effectiveness Results” page.
- Do not click on the browser “back” button.

### **Comparing new management practices:**

NAQSAT was designed to allow users to save their original inputs and effectiveness results and then run scenarios comparing the results of implementing proposed changes in management practices with the current conditions. **To run additional comparisons:**

- Click on “Save Progress” to ensure that all inputs are saved in the current session.
- Click on “Copy Session” at the bottom of the input page.
- NAQSAT now generates an identical set of inputs to the original session.
- Bookmark this second session with a new identification or select “Open in a new window”.
- Change inputs in the second session to reflect the impact of proposed management changes.
- Compare the effectiveness results of the first session to the second set of results from the proposed changes.

Users may run as many scenarios as they feel necessary. Each scenario should be bookmarked with a unique name so that each proposed management change may be quickly identified.

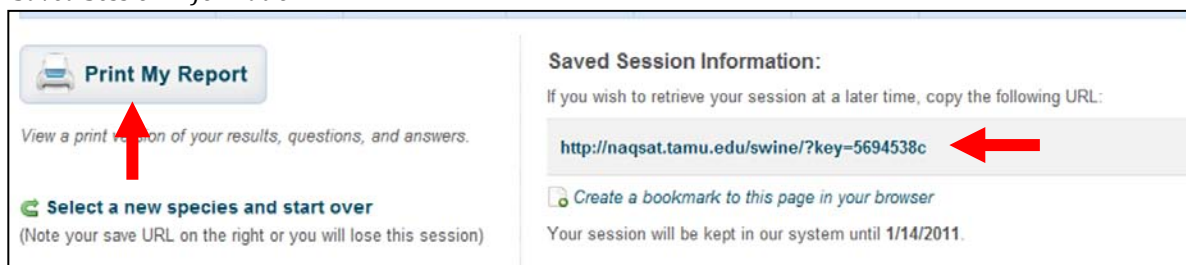
### **Exiting NAQSAT:**

- Save all inputs before exiting NAQSAT.
- All scenarios will remain active on the NAQSAT site for 30 days.
- If you re-access the data, the 30-day period starts over again.

### **Printing Reports:**

- The “Effectiveness Results” screen contains a print button in the lower left-hand corner as well as the saved session URL (Figure 5). All inputs are printed as well as the “Effectiveness Results” page.

Figure 5. Contents of lower portion of “Effectiveness Results” screen highlighting “Print My Report” button and “Saved Session Information”.



### User tips:

*In NAQSAT, a deep pit is considered a single-stage manure storage. All inputs for deep pits should be entered under Stage 1.*

*If manure is moved off-site (sold or given away), but you would still like manure application to be considered in the effectiveness results, under management category “Land Application” question “Where does manure go?” select “land applied” rather than “moved off site” and answer all questions that are populated.*

*If there were few questions asked within a management category, changing one answer may have a profound impact on the effectiveness results within that category. This should not be interpreted as having a similar profound impact on total farm emissions. The improved effectiveness in one category may reduce effectiveness in other categories.*

*NAQSAT sessions are saved for 30 days on the host computer. Printing out a paper copy will provide a copy of all inputs along with a copy of the effectiveness results.*

*Electronic copies of the NAQSAT inputs and effectiveness results may be saved to the user’s computer by printing in Adobe PDF™ format and saving in a PDF file. This step requires Acrobat Writer™ or other software capable of printing in PDF format.*

### Terms:

- Sheet not completed – All questions within a specific area were not completely answered.
- N/A (Not Applicable or Not Available) – Sufficient data was not available at the creation of this tool to provide the impact of a practice on emission of a specific constituent, or a selected answer in a sheet does not have an impact on emissions of a specific constituent.
- Choke-flow grain delivery system: Choke flow handling systems are designed to reduce the dust (PM) associated with grain handling by reducing the free fall of grain, feed ingredients and finished feeds. The process may include “dead boxes” on discharge spouts and/or matching the flow of product moved away in an auger or conveyor with flow from a discharge point, allowing product to build up to the point of discharge.