

TEXAS A&M AGRILIFE RESEARCH PROCEDURES

33.02.02.A1.01 WEB ACCESSIBILITY AND USABILITY

Approved: June 30, 2009

1.00 GENERAL

- 1.01 Texas A&M AgriLife Research is committed to making its websites accessible and usable to persons with disabilities. Accessibility and usability are required of all AgriLife Research pages intended for the public which contain official AgriLife Research information.
- 1.02 This procedure establishes the minimum accessibility standards for Web pages; however, Web authors are encouraged to exceed the minimum accessibility and usability standards throughout AgriLife Research.
- 1.03 Curricular pages are not included within the scope of this procedure; however, for TAMU these pages are covered by TAMU Procedure 33.04.99.M5.01, *Web Accessibility and Usability Procedures*.
- 1.04 All web pages covered by this procedure must be in compliance by June 30, 2009. Prior to this date, upon a specific request, information on these pages is to be made available to any individual needing such Web content.
- 1.05 New Web pages must be tested by the Web page owners using one or more §508, or equivalent, validation tools in conjunction with manual procedures to validate compliance with AgriLife Research's Web Accessibility and Usability Standards, unless an exception is approved through the Exception Request Process, pursuant to §2054.460, Texas Government Code.
 - a) Organizations should use *Section 508 tools for compliance* (e.g., WAVE or the W3C validator). *These tools* evaluate the accessibility errors to determine both the severity of the errors and the effort to fix them. The tool is available on the Section 508 web site.
 - b. The Accessibility Toolbar is another asset to assist with accessibility evaluation, and it is available at <http://www.nils.org.au/ais/web/resources/toolbar>.

2.00 DEFINITIONS

- 2.01 Accessibility Criteria B Web design criteria that support access that is not dependent on a single sense or ability, such as vision or hearing.
- 2.02 Usability Criteria B Web design criteria that support user performance, ease of navigation, and understandability

- 2.03 Texas A&M AgriLife Homepage - The main page of Texas A&M AgriLife.
- 2.04 Research Homepage B The main page for AgriLife Research.
- 2.05 Extension Homepage – The main page for AgriLife Extension Service.
- 2.06 Key Public Entry Point B The top-level page of major units and offices of Texas A&M AgriLife Research.

3. ACCESSIBILITY CRITERIA

- 3.01 Accessibility criteria apply to all Web pages intended for the public which contain official AgriLife Research information.
- 3.02 Text equivalents - A text equivalent for every non-text element shall be provided (e.g., via "ALT", "LONGDESC", or in element content).
- 3.03 Multimedia presentations - Equivalent alternatives for any multi-media presentation are recommended to be synchronized with the presentation. If a synchronized alternative is not available, a non-synchronized transcript of the presentation is recommended.
- 3.04 Color - Web pages shall be designed so that all information conveyed with color is also available without color, for example, from context or markup.
- 3.05 Presentation - Use of style sheets is recommended for document presentation across multiple media (screen, print, mobile), although content must be readable without requiring an associated style sheet.
- 3.06 Client-side Image Maps - Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.
- 3.07 Server-side Image Maps - Redundant text links shall be provided for each active region of a server-side image map.
- 3.08 Tables - Row and column headers shall be identified for data tables. Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers. When tables are used for page layout, a summary tag indicating the purpose of the table shall be included.
- 3.09 Frames - All frames shall implement both TITLE and LONGDESC tags with appropriate text that facilitates frame identification and navigation.
- 3.10 Blinking - Pages shall be designed to avoid causing the screen to blink with a frequency between 2 Hz and 55 Hz.
- 3.11 Scripts - When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text.

- 3.12 Applets and plug-ins - When a Web page requires that an applet, plug-in, or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet.
- a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.
 - b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.
 - c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.
 - d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.
 - e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.
 - f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.
 - g) Applications shall not override user selected contrast and color selections and other individual display attributes.
 - h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.
 - i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
 - j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.
 - k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.

- l) When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
- 3.13 Forms - When electronic forms are designed to be submitted on-line, the form shall allow access to the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
 - 3.14 Skip-Navigation Links - A method shall be provided that permits users to skip repetitive navigation links.
 - 3.15 Alternate Text-Only Versions – It is recommended that alternative text-only versions of Web sites are accomplished via style sheets and not duplicate content as the content of the text-only page shall be updated whenever the primary page changes. If alternate text-only Web sites are used, then equivalent information and functionality shall be provided to make a Web site comply with the provisions of this procedure.
 - 3.16 When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.
 - a) Effective September 1, 2006, unless an exception is approved by the executive director of the state agency or an exemption has been made for specific technologies pursuant to Texas Administrative Code, Title 1, §213.17, all new or changed Web page/site designs shall be tested by the state agency using one or more §508 compliance tools in conjunction with manual procedures to validate compliance with this chapter. State agencies shall establish policies to monitor their Web site for compliance with this chapter. Additional information about testing tools and resources are available on the department's Web site.
 - b) Each state Web site shall avoid vendor specific "non-standard" extensions and shall comply with applicable standards (e.g., IEFT (if using secure socket layer (SSL) connections), W3C (if using Cascading Style Sheets (CSS) and validated using the W3C CSS Validation Service), etc. For guidance regarding "non-standard" extensions, emerging technologies and applicable standards, state agencies shall refer to the department's guidelines.
 - c) The policy should cover testing and validation of Web pages.
 - d) Each state Web site should be designed with consideration for the types of Internet connections available to the citizens of Texas, and undergo accessibility and usability testing.
 - e) The policy should cover the testing/validation tools and manual procedures used for validating compliance with Chapter 2054, Subchapter M, Texas Government Code.

4. USABILITY CRITERIA

- 4.01 Texas Records and Information Locator (TRAIL) Metadata, following the Dublin Core meta-information specification is essential for the Electronic Depository Program (see:

<http://www.tsl.state.tx.us/trail/about.html> for more information). The descriptors of TRAIL metatags must describe the specific Web page or publication in which they are included. Use of a generic set of descriptors for every publication is not acceptable. The following Dublin Core meta-information tags, as applicable in accordance with pages identified in paragraph 4.03, shall be implemented:

- A. DC.Subject.Keyword
- B. DC.Description
- C. DC.Subject
- D. DC.Type

4.02 The HTML TITLE Tag shall be implemented on all Web pages

4.03 Usability criteria apply in the following manner:

- A. All pages shall implement usability criteria identified in paragraph 4.01 A and B, and Paragraph 4.02.
- B. In addition to the requirement of paragraph 4.03 A, AgriLife Research homepages, and all key public entry points shall implement all usability criteria contained in this procedure.
- B. Application of all usability criteria for all other Web pages is recommended.

4.04 The following links to state resources shall be included on pages identified in paragraph 4.03 B:

- A. State of Texas home page
- B. Statewide Search
- C. Texas Homeland Security Web site
- D. State Link Policy

4.05 The following links to AgriLife Research information, as applicable, shall be included on pages identified in paragraph 4.01 B:

- A. AgriLife Research and/or AgriLife Extension Service home page, and Texas A&M AgriLife Homepage
- B. Privacy and Security information
- C. Accessibility rules
- D. Open Records / Public Information Act
- E. Unit contact information
- F. Compact with Texans

4.06 The following links to unit information, shall be included on pages identified in paragraph 4.01 B:

- A. Unit contact information
- B. Webmaster contact information

Additional information on Web page accessibility may be obtained from the W3C consortium at <http://www.w3.org/wai>.

Refer questions concerning this procedure to the AgriLife Human Resources Office at 979-845-2423.