

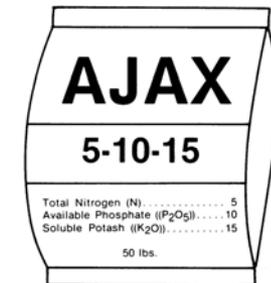


Soil Testing Lab



Soil Testing:

- Used to estimate acidity and nutrient availability in the soil in order to provide lime and fertilizer recommendations.
- Available through Virginia Cooperative Extension and private laboratories.



Virginia Cooperative Extension

Knowledge for the Commonwealth



VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY



VIRGINIA STATE UNIVERSITY

Lab's web site →
www.soiltest.vt.edu



STL - Mozilla Firefox

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http://www.soiltest.vt.edu/ Go

CES Crop & Soil Environmental Sciences

Virginia Tech Soil Testing Lab

- Mission**
- Why and how to test your soil (sample forms)**
- Soil sampling for the home gardener**
 - Example [lawn](#) & [farm](#) soil test reports
- Soil Test Notes**
- Laboratory Procedures**
- Turf & Garden Tips**
- Agronomy Handbook**
- Mid-Atlantic Nutrient Management Handbook**
- Virginia Cooperative Extension**
- NRCS Soil Survey Information**



Located in Smyth Hall
on the campus
of Virginia Tech

BEGAN OPERATIONS IN 1938



1955 Picture

Soil Testing Laboratory
Department of Crop and Soil Environmental Sciences
Virginia Tech
Virginia Cooperative Extension
Helping you grow the commonwealth



THROUGH 145

Do Not Touch
This Signage
Keep Around and Keep
Left of the Loading
Machines, Then Proceed
Straight & Through The
Blue Way

145



SOIL TESTING LABORATORY

Deposit Samples Here

LABORATORY HOURS
8:00 AM TO 12:00 NOON
1:00 PM TO 5:00 PM
MONDAY THROUGH FRIDAY



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145 Smyth Hall

Summary of Sampling Instructions

Back of Form →

↓ On Sample Box ↓

INSTRUCTIONS FOR SAMPLING SOIL

1. EQUIPMENT NEEDED: SAMPLING TUBE, SPADE, TROWEL, OR AUGER AND CLEAN PLASTIC PAIL.
2. SAMPLES SHOULD BE MADE UP OF AT LEAST 5 SUBSAMPLES OR CORES FROM EACH ACRE REPRESENTED BY THE SAMPLE. SAMPLE TO PLOW DEPTH IN CROP LAND AND THE TOP 2 TO 4 INCHES IN PASTURE OR SOD. MIX SAMPLE THOROUGHLY IN THE PAIL BEFORE THE SAMPLE CARTON IS FILLED WITH SOIL. SAMPLE SHOULD NOT REPRESENT MUCH OVER 10 ACRES.
3. IF THERE ARE VISIBLE DIFFERENCES IN SOILS OR CROP GROWTH IN A FIELD, A SEPARATE SAMPLE SHOULD BE TAKEN FROM EACH UNIFORM AREA. DO NOT TAKE SUBSAMPLES FROM ERODED SPOTS, BACK FURROWS OR SMALL DEPRESSIONS. LARGE AREAS IN A FIELD THAT HAVE BEEN MANURED, LIMED, FERTILIZED, OR OTHERWISE TREATED DIFFERENTLY SHOULD BE SAMPLED SEPARATELY.

Important:

For test results to be meaningful, use extreme care when taking soil samples. Each sample represents many tons of soil in your lawn or garden. Test results cannot be any more accurate than the sample submitted to the laboratory. **Do not** take samples when the soil is extremely wet.

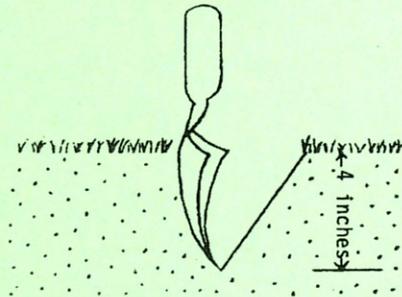
Sampling Instructions:

Divide your lawn or garden into sampling areas. Each area should be uniform in the kind of soil and in the past fertilizer and lime treatments it has received. An example would be separate samples (areas) for front and back lawns. For **shrubs and trees**, select an area from the trunk to the outer edges of the branches. Take a separate sample from each area as shown in the diagram below.

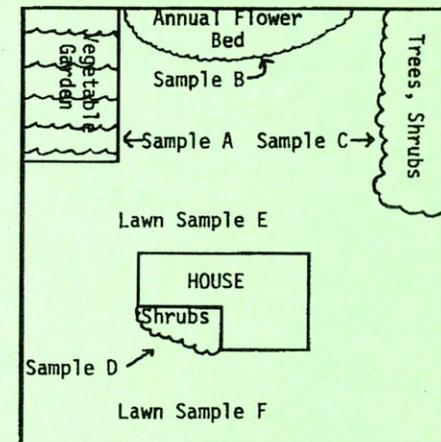
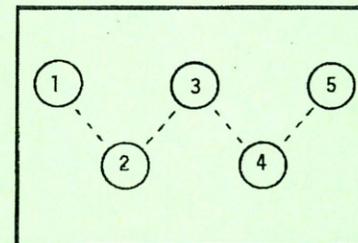
Use the following procedure for each sampling area:

- A – Take samples with a trowel, shovel, spade, or auger. Make a vertical cut 4" deep for lawns, or to plowing depth for gardens, and push the soil aside. Then cut a thin slice from the side of the opening that is of uniform thickness, approximately 2" in width, and extending from the top of the ground to the depth of the cut. Scrape away or discard any surface mat of grass or litter and place the slice of soil into a clean bucket or other container. Follow this sampling procedure in 10 or more different locations within each sampling area, each time placing the resulting soil in the same container, giving you a composite sample.
- B – Thoroughly mix the soil from the composite sample and then fill the sample box to the top with the mixture. Fill in the information requested on the side of the sample box, including sample number, complete the other side of this sheet, and send sample, sheet, and payment directly to the Soil Testing Laboratory.

How To Take Composite Samples of Each Bed or Section



Sampling With Trowel, Shovel, or Spade



Set Up Room



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Soil Preparation Room



**Sample
Set Up**



Air-Drying
of Soil

Sample Grinding and Sieving



Sub-sampling Prepared Soil for Analysis





Soil Testing Office



Information Sheets are entered into the lab's computer system.



Soil Testing – Nutrient Extraction



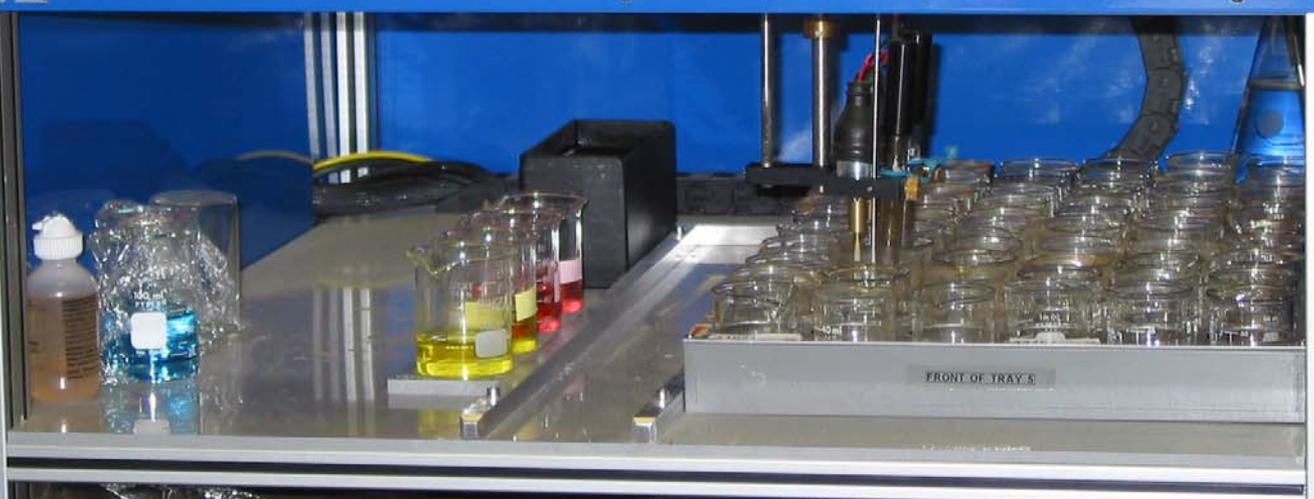


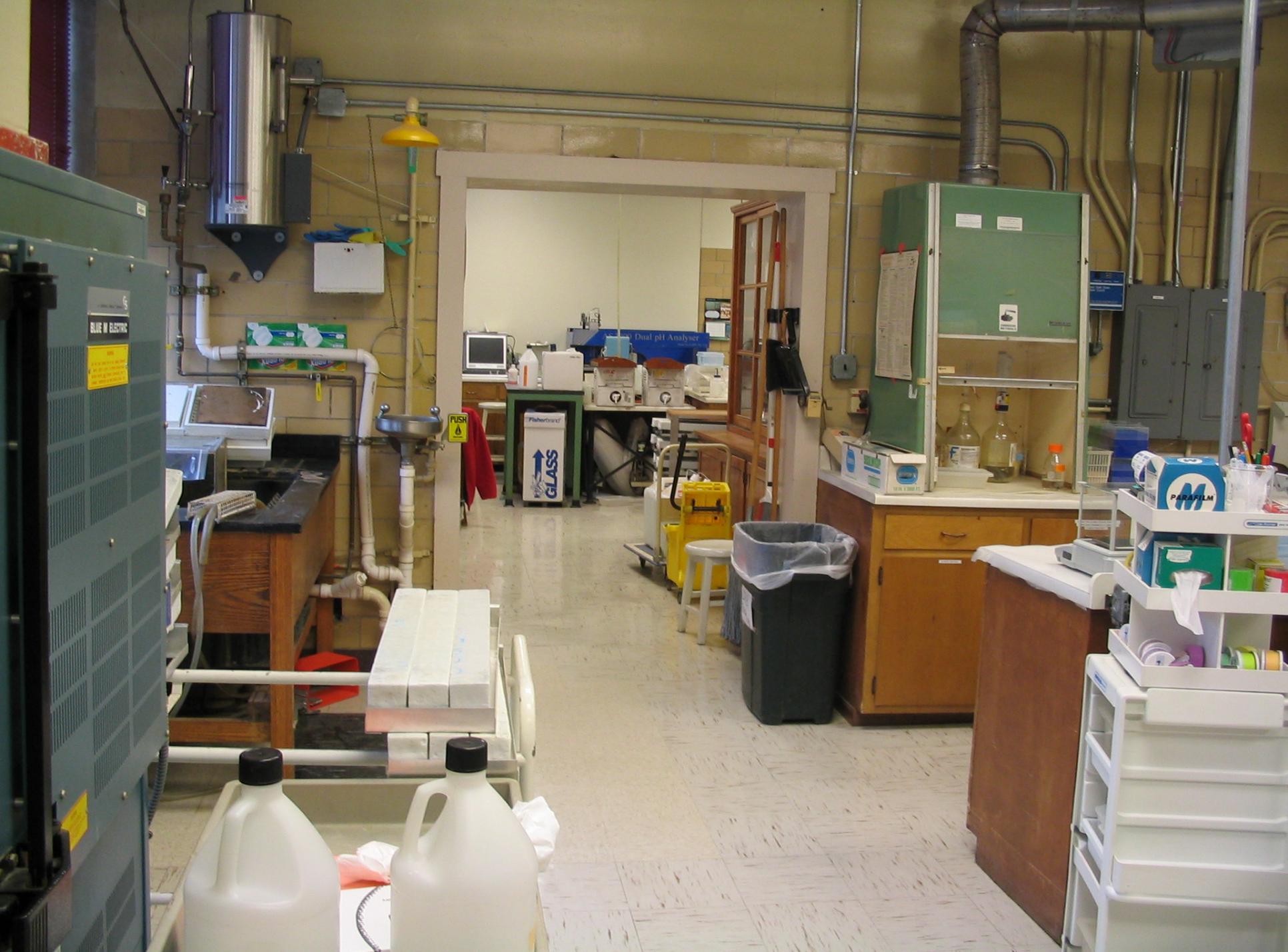
Soil Testing – pH Measurement



AS-3000 Dual pH Analyser

Made by LabFit Pty Ltd







INDEX RATINGS
PERSONAL PROTECTION

MATERIAL SAFETY DATA SHEETS



120V 15A

Blank white box on top of the fume hood.

BLUE M ELECTRIC

Control panel on the fume hood with various gauges and buttons.

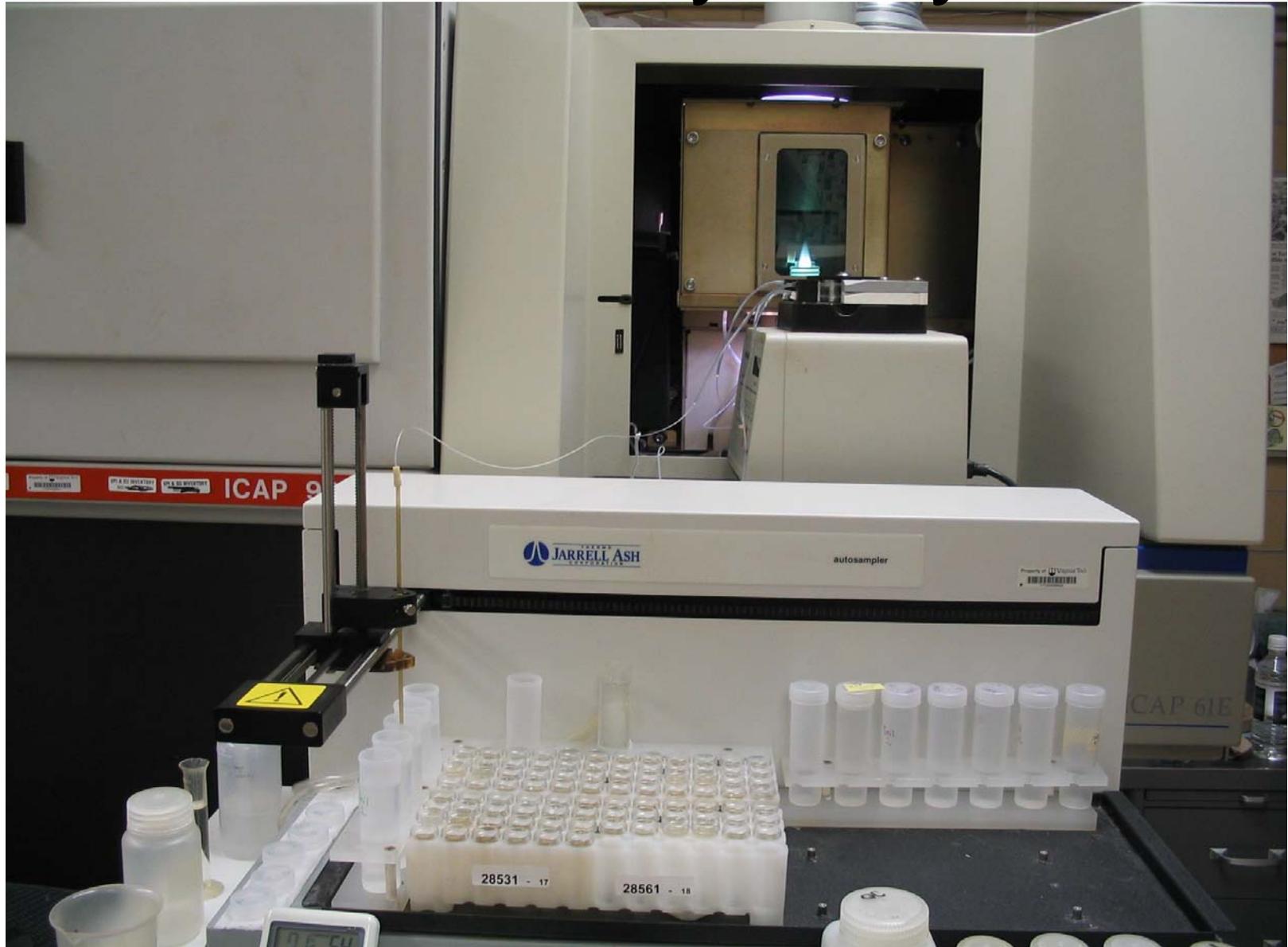


Soil Testing – Nutrient Analysis





Nutrient Analysis by ICP-AES





VCE's web site → www.ext.vt.edu

The screenshot shows a Mozilla Firefox browser window displaying the Virginia Cooperative Extension website. The browser's address bar shows the URL <http://www.ext.vt.edu/>. The website features a green and white color scheme. At the top, it displays the logos for Virginia Tech (Virginia Polytechnic Institute and State University) and Virginia State University, along with the text "Virginia Cooperative Extension Knowledge for the Commonwealth". A "Welcome!" banner is prominently displayed. Below this, a central text block reads: "Welcome to Virginia Cooperative Extension, your connection to Virginia's land-grant universities: [Virginia Tech](#) and [Virginia State University](#). We help people improve their lives by providing research-based educational resources through a network of on-campus and local Extension offices and educators." To the left of this text is a vertical navigation menu with four items: "Educational Programs & Resources", "Local Extension Offices", "News", and "More about Virginia Cooperative Extension", each with a right-pointing arrow. Below the main text are three small images: a green tractor in a field, two women sitting at a table with documents, and a woman smiling. At the bottom of the main content area, there is a section for "Employment Opportunities" with a right-pointing arrow. A footer section contains a search bar with the text "Search the VCE site" and a "GO" button, followed by the instruction "Enter a Keyword or try a more [refined search](#)". Below the search bar are several links: [Accessibility Compliance](#), [Calendar](#), [Contact Us](#), and [Site Index](#). At the very bottom center, there is a small red ribbon icon and the text "[We Remember.](#)".