

## Glossary

- anesthetic** – a substance that produces loss of sensation  
**analgesic** – painkilling  
**anodyne** – a painkiller  
**antipyretic** – a substance that reduces fever  
**antiseptic** – a substance that inhibits the growth of microorganisms on living tissue  
**astringent** – a substance that contracts the pores or tissues  
**decoction** – a liquid extract of the hard parts of plants  
**demulcent** – a soothing substance used internally  
**diaphoretic** – a substance that causes perspiration  
**diuretic** – a substance that causes urination  
**elixir** – a 20%+ alcoholic liquid that is sweetened and used for medicinal purposes  
**emetic** – a substance that causes vomiting  
**emollient** – an infusion or decoction used externally to soothe  
**febrifuge** – a substance that reduces body temperature  
**infusion** – the resultant liquid when boiling water is poured onto an herb.  
**nervine** – an agent that soothes the emotions  
**rubifacient** – an agent used to cause redness of the skin  
**poultice** – a heated mass of macerated fresh herbs (sometimes wet) placed on cloth and applied directly to the affected area  
**salve** – a soothing or healing medicinal ointment  
**sedative** – a substance which has a soothing or calming effect  
**styptic** – a substance that contracts the tissues  
**tincture** – a solution containing medicinals, aromatics and about 50% alcohol  
**tonic** – a remedy that stimulates, refreshes, invigorates and restores  
**vermifuge** – a substance that repels intestinal worms

## Resources

- <http://civilwarmed.org>  
[www.civilwarhome.org/medicinehistory.htm](http://www.civilwarhome.org/medicinehistory.htm)  
<http://vermontcivilwar.org/medic>  
[www.njhistoryroundtables.org](http://www.njhistoryroundtables.org)  
[www.amartcivilwar.org](http://www.amartcivilwar.org)  
[www.nps.gov/vick/forteachers/science\\_medicinal\\_plants.htm](http://www.nps.gov/vick/forteachers/science_medicinal_plants.htm)

## Garden Notes

While the Civil War raged in America, Queen Victoria ruled in England. Victorian garden design featured many of the plants on exhibit here. After the Civil War, Americans turned their attention to their homes and incorporated many Victorian ideas into their gardens. Ferns, such as the ones hanging here, were a favorite of the time as were the plants in the window boxes – Impatiens and Coleus. During the Victorian Age, increased plant exploration brought back many new plants for the Empire from its colonies around the world. Bedding plants were used extensively and the idea of setting out thousands of annuals in giant swaths of contrasting colors was known as “carpet bedding.” Thinner plantings were called “ribbon bedding,” an example of which, with Dusty Miller and Verbena is growing in the area surrounding plants #2 – #17.



*Cornus florida*

## Disclaimer

### “DEMONSTRATION — NOT PRESCRIPTION”

*The purpose of the “Medicinal Plants of the Civil War Garden” is to exhibit plants that have been the source of medicines in the past and to share historical information. In providing this garden and related written materials, the Arboretum does not intend to endorse the medicinal use of these plants. Individuals should consult with their health care professionals before taking any medicines, herbal or otherwise. Medicinal plants can be toxic. Do not pick or ingest plants in the garden.*

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**NORTH JERSEY  
CIVIL WAR  
ROUNDTABLE**

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**THE MORRIS COUNTY  
PARK COMMISSION**

*~ presents ~*

# MEDICINAL PLANTS OF THE CIVIL WAR EXHIBIT & CELL PHONE TOUR

The Frelinghuysen Arboretum  
53 E. Hanover Avenue  
Morris Township, NJ

**JUNE 24 – OCTOBER 24, 2010**

## Instructions

To begin your tour, stand just outside the Haggerty Education Center and follow the "Medicinal Plants of the Civil War" signs to the Scherer Garden for Special Needs, located directly behind the Haggerty Education Center.

You may explore the plants in chronological order or as you wish. Dial 973-975-0973 and, when prompted, press the number that represents the plant you want to learn about. Speakers on this cell phone tour include members of the North Jersey Civil War Round Table and staff here at The Frelinghuysen Arboretum.

We suggest that you begin by dialing 973-975-0973 and pressing #100 to hear a welcome by Morris County Park Commissioner Richard Seabury and then #200 to listen to a greeting from Rich Rosenthal, President of the North Jersey Civil War Roundtable.

Plants #1-19 are located in the Scherer Garden for Special Needs. Plants #20-24 are located in the Lindner Perennial Garden. To reach the Lindner Perennial Garden, walk past the picnic pavilion, down the slope and to the left. Look for "Medicinal Plants of the Civil War" plant markers.

Please remember that plants bloom when they are ready to do so. Your visit may not coincide with a plant's bloomtime. You can see images of these plants in bloom at [www.arboretumfriends.org](http://www.arboretumfriends.org). Visit the photo gallery and select the "Medicinal Plants of the Civil War" file. A PDF file of this brochure is also available at this site.

We appreciate your comments. There are instructions at the end of the cell phone tour on how to record a comment, or you may email your comments to: [lparness@morrisparks.net](mailto:lparness@morrisparks.net)

### Interested in a program on this topic for your organization or school?

To reserve a one hour long program on "Medicinal Plants of the Civil War" for your group of 20 or more, please contact [lparness@morrisparks.net](mailto:lparness@morrisparks.net). This program includes a 40 minute long PowerPoint presentation and a tour of the Medicinal Plants of the Civil War Garden. The cost of this program is \$10 per person (20 person minimum).



*Lobelia inflata*

## Introduction

This exhibit was inspired by a collection of rare books at The Frelinghuysen Arboretum. They are of a category known as Medical Botanies. In them, for the first time in history, physicians simultaneously used both the scientific name for a plant, and its many common names, thoroughly described its properties and qualities, detailed all means of its use, preparation and administration and displayed a morphologically accurate botanic illustration of the plant. Medical botanies revolutionized plant based medicine. These are the books:

*American Medical Botany* by James Bigelow, 1817

*Botanic Drugs* by Thomas Blair, 1917

*Cherokee Physician* by James W. Mahoney, 1846

*Some American Medical Botanists* by

Howard A. Kelly, 1914

*The Botanic Physician* by Elisha Smith, 1830

The award-winning PBS documentary "The Civil War" begins with the statement "The Civil War was fought in 10,000 places..." We would like to add that at every one of those places, *there were plants*. Plants for food and drink, for dyeing uniforms blue or grey, plants for shelter, plants for healing. This exhibit and its accompanying cell phone tour describes the medicinal use of plants in field hospitals, home surgeries and on the battlefields.

To understand the role that plants played in the Civil War, it is necessary to understand the state of medicine, battle strategy and weaponry at the time.

During this period, bleeding patients was still a common practice. There was no knowledge of germ theory or any antiseptic practice. Surgeons did not wash their hands or instruments. Of the approximately 650,000 deaths that occurred, twice the number of soldiers died from disease as on the battlefield. Sanitary conditions in Northern and Southern camps were poor. Typhus, tuberculosis, chronic dysentery were common as bacteria and virus spread like wildfire.

Battle strategy had not progressed from the time of the Revolutionary War. Battles were still fought largely by advancing columns of infantry, exposing a maximum number of soldiers to the opponents' weaponry.



*Sanguinaria canadensis*

Weaponry unfortunately, had advanced. Invented in 1848, the Minie ball was used by the North and South. Made of soft lead, it would create a ragged wound and could splinter internally. Without knowledge of antiseptic practices, the infections that followed a Minie ball injury were frequently fatal.

Often referred to as "the medical Middle Ages" the Civil War proved to be a crucible for American medicine. Out of it came new ideas for hospital design and administration, a more highly regarded nursing profession, new scholastic requirements for physicians, the birth of the pharmaceutical industry and sadly, the end of use of plants as primary medicines in America. The proliferation of "patent medicines" sold with no government regulation led to great abuse of herbs and as the modern pharmaceutical industry grew, chemical synthetics replaced garden grown plants in medicine chests and hospital storerooms.

There is now a resurgence of interest in plants as medicine. Historically, the field of medicine has always been allied with the discipline of botany, but the subject of medical botany, once discarded from modern American medical education is now a part of medical school curriculum. The greater sharing of other culture's medical practices through technology, the growing interest in alternative medicine and continual new botanic discoveries have all prompted the medical community to acknowledge that it can benefit from a deeper understanding of plants. Medical botanies, no longer relegated to quiet library shelves, are once again read and used in American medical colleges.



*Asarum canadense*

## Plants

1. **Papaver orientale – Poppy**  
*Morphine and its derivatives were powerful anodynes*
2. **Heuchera Americana – Alumroot**  
*The astringent root was chewed to relieve sore throat*
3. **Eupatorium perfoliatum – Boneset**  
*Useful for treating dengue or breakbone fever*
4. **Digitalis purpurea – Foxglove**  
*Rich in cardiac glycosides, its use was a means of regulating heartbeat*
5. **Lobelia inflata – Indian Tobacco**  
*An emetic, hence its moniker, "pukeweed"*

6. **Liatris spicata 'Floristan Weiss' – Gayfeather**  
*Recommended as a gargle for sore throat because of its demulcent qualities*
7. **Capsicum annum – Cayenne pepper**  
*A rubifacient, it treats muscle and joint pain in salve form*
8. **Sanguinaria canadensis – Single Bloodroot**  
*Used as a vermifuge and to treat fungal disease*
9. **Asarum canadense – Wild Ginger**  
*Used in poultice form, its leaves contain antibiotic properties*
10. **Glycyrrhiza glabra – Licorice**  
*A decoction made of its seeds was used to treat lung disease*
11. **Smilacina racemosa – False Solomon's Seal**  
*The powdered root quelled rash and itch*
12. **Scutellaria laterifolia – Scullcap**  
*Drinking an infusion of its leaves produced a sedative effect*
13. **Marrubium vulgare – Horehound**  
*Demulcent properties made it useful in the treatment of coughs and respiratory complaints*
14. **Cimicifuga racemosa**  
*Used in the treatment of rheumatism*
15. **Symphytum officinale – Comfrey**  
*Containing allantoin, it is known for its ability to heal bruises and mend bones*
16. **Delphinium elatum 'Blue Lace'**  
*The powdered leaves were scattered to repel insects*
17. **Monarda 'Gardenview Scarlet'**  
*Tea brewed from its leaves produces a powerful vermifuge*
18. **Humulus lupulus – Hops**  
*By brewing its flowers a sedative elixir is produced*
19. **Rhus aromatica – Sumac**  
*Used as a poultice to staunch bleeding*
20. **Callicarpa americana – American Beauty Bush**  
*Used for its diuretic qualities in treating dropsy or edema*
21. **Tanacetum – Feverfew**  
*Used for its antipyretic properties and to treat migraine headaches*
22. **Cornus florida – Dogwood**  
*A substitute for quinine in combating malaria*
23. **Hamamelis virginiana – Witch Hazel**  
*Applied to sore muscles, this tonic is astringent and antiseptic*
24. **Sambucus canadensis – Elder**  
*A tea made from its inner bark is diuretic and laxative.*

The botanical illustrations that appear in this brochure are from *American Medical Botany* by James Bigelow, 1817