

Trina Cordingley  
Box 3  
Kleena Kleene, BC  
VOL 1M0  
250-305-9279

THE BENEFITS OF THE USE OF GOLDEN SEAL IN HERBAL PREPARATIONS

**TABLE OF CONTENTS**

A. INTRODUCTION	PAGE 3-4
B. HISTORY OF GOLDEN SEAL	PAGE 4-6
C. LOCATION OF GOLDEN SEAL	PAGE 6-8
D. CHEMICAL CONSTITUENTS OF GOLDEN SEAL	PAGE 8-9
E. MEDICINAL QUALITIES OF GOLDEN SEAL	PAGE 9-11
F. CONTRA-INDICATIONS OF GOLDEN SEAL	PAGE 11-12
G. KNOWN HERBAL FORMULAS OF GOLDEN SEAL	PAGE 13-14
H. DOSAGE AND APPLICATIONS OF GOLDEN SEAL	PAGE 14-16
I. PERSONAL EXPERIENCE	PAGE 16-17
J. CONCLUSION	PAGE 17-18

## THE BENEFITS OF THE USE OF GOLDEN SEAL IN HERBAL PREPARATIONS

### A. INTRODUCTION

Golden seal (*Hydrastis canadensis*) is a medicinal forest herb with antibiotic attributes. It is found in both Canada and the United States in woodlands. It is often used as a multi-purpose remedy. Goldenseal is used to treat everything from common colds to cancer. Golden seal is used as a topical antimicrobial, internally as a digestive aid, and as a canker sore remedy. It is a potent herbal medicine which shifts chronic infection and heals weakened and congested mucous membranes. Its key use lies in treating chronic bacterial, viral, and fungal infections that affect the mucous membranes in the body. Golden seal is said to be among the five top-selling herbal products in the USA and is known by many common names such as orange root and ground raspberry. (Bremness 2009, Chevalier 2007)

As well as ground raspberry, it is known by many other common names which include Golden seal, Yellow root, *Hydrastis*, Yellow puccoon, Yellow paint root, Indian paint, Indian plant root, Turmeric root, Jaundice root, Ohio curcuma, Indian turmeric, Eye balm root, Eye root, and Yellow eye. The generic name, *Hydrastis*, is derived from 2 Greek words signifying water and to accomplish. It most likely gets this meaning from its effects on the mucous membrane. The second word in Golden seal's name, *Canadensis*, comes from its location. (Beyerl 1984, Christopher 2009)

Golden seal is not only known by many common names but is also a hardy perennial herb which Dr. Christopher tells us, “is considered to be one of the best general medicinal aids in the entire herbal kingdom” (2009: 442). It has a long history which dates back to early Native American use. It is native to North American woodlands and is threatened by over-harvesting and deforestation. The root of Golden seal is harvested because of the alkaloids it contains. The alkaloids berberine, hydrastine, and canadine give it many medicinal qualities. Herbalists have been using Golden seal medicinally for years even though caution needs to be used so one doesn’t overdose while using Golden seal. Golden seal is considered to be one of the best multi-purpose medicinal aids known today because of its astounding qualities as a tonic, detergent, antiseptic, and laxative. There are numerous formulas available on the market today which contain Golden seal. Many of the formulas mix Golden seal together with Echinacea in order to relieve the common cold, flu, and stimulate the immune system. Perhaps the most famous Golden seal formula is Dr. Christopher’s Herbal Eyebright which is used to restore eye health and improve vision. Personally, I heed Dr. Christopher’s warning when I use Golden seal and use it mostly in small quantities mixed with other herbs to help enhance their effectiveness.

## **B. HISTORY OF GOLDENSEAL**

Golden seal has a long history of success as a medicinal and as a dye. Golden seal was most likely first used by early Native Americans who used it medicinally, as a dye, and for their religious ceremonial needs. Medicinally, Native Americans used it to treat inflammation that was caused by infection in the digestive, respiratory, and genito-urinary tracts. Golden seal was one of the traditional medicinal Native American herbs that were given to the White man. The

Cherokee used it for inflamed eyes, sore mouth, and as a bitter tonic in liver and stomach disorders. They applied it externally for skin diseases and used it as a dye. It was also mixed with grease and used as an insect repellent. As well as an insect repellent, the Cherokee also used it for poor appetite, cancer, as a wash for inflammation, as a treatment for dyspepsia, and also for general debility. Besides being used by the Cherokee, Golden seal was used by other tribes such as the Micmac, Iroquois, and other American aboriginals. (Christopher 2010, Predny & Chamberlain 2013)

The Micmac used Golden seal for chapped and cut lips while the Cherokee used it for more serious ailments. The Iroquois used Golden seal to treat diarrhea, whooping cough, liver disease, tuberculosis, earache, fever, stomach ache, pneumonia, heart trouble, and flatulence. Other American aboriginals used the root as a tonic, stomachic, and application for sore eyes and general ulceration. A yellow dye was made from the root which was used for clothes, weapons, and face paint. As well as medicinally and as a yellow dye, several tribes of the Appalachian areas and throughout the Carolinas used Golden seal as a Religious Herb. Aboriginal groups used Golden seal for many generations before ever introducing it to the White man. (Beyerl 1984, Grieve 1971)

Goldenseal was first introduced into England by Miller in 1760 and was called Warnera after Richard Warner of Woodford in England. It was later grown in both Edinburgh and Dublin. It has been in popular use since the mid-nineteenth century and has been used for a very long time by North American healers. It has a recorded history of use by Thomsonians, Eclectics, and modern day herbalists. (Grieve 1971)

Eclectic medicine was a branch of American medicine which used botanical remedies along with other substances and physical therapy practices. It was popular in the second half of

the nineteenth Century and first half of the twentieth Century. Eclectics saw great value in Golden seal and used it regularly in their botanical remedies. As well as Eclectics, Thomsonians saw valid use in the medicinal properties of Golden seal. Thomsonian doctors included Golden seal with their medicine. They used it for bowel complaints in children, the removal of worms, for morning sickness, and for indigestion. In 1860, Golden seal was declared an official drug in the US Pharmacopeia because of its constant demand by medical doctors. (Predny & Chamberlain 2013, Christopher 2010)

Golden seal started to be used commercially in 1850. In 1905, the United States Department of Agriculture became interested in Golden seal for medical purposes and discussed it in Bulletin No. 51. "There it is stated that the early settlers learnt of the virtues of Golden Seal from the American Indians, who used the root as a medicine and its yellow juice as a stain for their faces and a dye for their clothing" (Grieve 1971: 362). By 1905, the annual supply of Golden seal was estimated to be somewhere between two hundred and three hundred thousand pounds. Thirty years ago it was abundant and sold for about eight cents per pound. In 1991, it was recognized as an endangered species. In 1997, trade restrictions were imposed in an attempt to save this species from extinction. Today, the supply of Golden seal has greatly diminished due to over-harvesting and deforestation which means its price will continue to rise. A quick Internet search says the current price for Golden seal root is between one hundred to one hundred sixty dollars per pound depending on the source and whether or not it is organic.

### **C. LOCATION OF GOLDEN SEAL**

Golden seal is native to North American woodlands. It is a small perennial herb with an irregularly knotted and horizontal rootstock that is bright yellow in color. Even though it is threatened in the wild due to over-harvesting and deforestation, it is still found in Canada and the Eastern United States. It is a native of Ontario in Canada as well as the US states of Ohio, Kentucky, West Virginia, Indiana, and New York. Golden seal is found in the rich soil of shady woods and in moist areas at the edge of wooded landscapes. Golden seal is a member of the buttercup family (Ranunculaceae). The buttercup family incorporates rich herbaceous perennials found in the hardwood forests throughout the Northeastern United States and Canada. (Beyerl 1984, Bremness 2009)

Golden seal is distinguished by its thick, yellow knotted rootstock. It is found in rich, moist, loamy soil in areas that are two-thirds shade. It can be grown from seed or from a root piece with a growing bud. Dr. Christopher states that, "The rhizome is one to two inches long, about one quarter inch thick, oblique, with several short branches, terminated by a broad concave scar, somewhat flattened, annulate from the leaf scars, longitudinally wrinkled, and beset below with many thin fragile rootlets three to five inches long, containing a thin triangular or quadrangular ligneous cord and a thick bright yellow bark (2010: 253). The roots of Golden seal are harvested in its second autumn. They can be used fresh or dried to make various herbal remedies. (Beyerl 1984, Bremness 2009)

There are typically two distinct sizes to Golden seal. The smaller members of Golden seal grow to about ankle height whereas the larger variety of Golden seal grows to a height of one foot. Golden seal produces a single flower in the spring which leads to a bright, red cluster of berries almost resembling a raspberry. The typical height of Golden seal is somewhere between six and twenty-four inches. It has two large unequal alternate terminal leaves which are slightly

hairy and palmate with three to five lobes on each. Above ground, the stems are hairy and are a purplish color. Below ground, the roots are yellow and are what contributes to Golden seal's usefulness as a dye. The flower is small and solitary and its color varies from white to rose. The fresh root or rhizome is short with an abundance of rootlets which are a foot or more in length. The herb tastes bitter and has a strong and disagreeable odor. The smell comes from the chemical constituents, mainly three alkaloids, which are found in Golden seal. (Christopher 2009)

#### **D. CHEMICAL CONSTITUENTS OF GOLDEN SEAL**

When using Golden seal, one typically uses the dried rhizome and roots. Sometimes the leaves are dried and used as well, but the root is much more likely to be used. Golden seal's most potent medicinal activities are found in its roots and rhizome. The active constituents in the rhizome and roots of Golden seal are the alkaloids berberine, hydrastine, and canadine. Alkaloids are clear and chemically complex. They occur in an organic base which is usually a mixture of nitrogen and oxygen. Alkaloids give Golden seal potent medicinal qualities. The alkaloids in Golden seal have been shown to have antibiotic, anti-inflammatory, antispasmodic, and tonic effects. (Beyerl 1984, Predny & Chamberlain 2013)

The dried root and rhizome of Golden seal contain the alkaloids berberine, hydrastine, and canadine which are known to have strong antimicrobial effects. Berberine has antibacterial and anticonvulsive properties which increase secretions of bile and lowers blood pressure. As well as lowering blood pressure, berberine also cleanses the liver and is a good astringent. The alkaloid hydrastine can cause convulsions if it is taken in too high of a dose for a long period of time. However, hydrastine is safe if it used in small amounts and is mixed together with other



herbs. “In chronic inflammation of the colon and rectum, injections of Hydrastine are often of great service, and it has been used in haemorrhoids with excellent results, the alkaloid Hydrastine having an astringent action” (Grieve 1971: 364). Berberine and hydrastine give Golden seal its broad-spectrum antibacterial qualities.

It is important to keep in mind that the entire root of Golden seal is used and that one alkaloid is not extracted and taken in isolation of the others. It is believed that all the alkaloids in Golden seal work together to reduce muscle spasms and give it other medicinal qualities. If any of the alkaloids are removed, the effectiveness is strongly reduced. Other constituents in Golden seal include berberastine, meconin, chlorogenic acid, phytosterins, resins, albumin, starch, fatty matter, sugar, lignin, and volatile oils which give the root its odor. Golden seal’s alkaloids give it numerous medicinal qualities which make it very useful for making medicinal herbal formulas which are then used to treat the many ailments Golden seal is famous for. (Christopher 2010, Chevalier 2007, Predny & Chamberlain 2013)

### **E. MEDICINAL QUALITIES OF GOLDEN SEAL**

Golden seal is known to be one of the best medicinal aids in the herbal kingdom. It is very popular due to its usefulness as a tonic, a laxative, an alterative, and as an antiseptic or detergent. Golden seal is anti-inflammatory, antimicrobial, antibacterial, a blood cleanser, a mucous membrane tonic, and it protects the liver. It strengthens immunity, soothes sinuses, and has been used as a topical antiseptic. Golden seal is useful as an alterative, an aperient, an astringent, and aids in afflictions such as bronchitis and colitis. Bremness (2009) tells us that it is an effective antibiotic when used against fungi and bacteria and that it activates infection fighting

macrophage cells as well as improving blood supply to the spleen. Christopher (2009) says that it is useful as a tonic, laxative, alterative for the mucous membranes, detergent, ophthalmic, anti-periodic, aperient, diuretic, anti-septic, deobstruent for the glandular system, cholagogue, anti-emetic, nervine, and hemostatic for the urinary system. He also tells us that Golden seal is a powerful tonic for problems with assimilation. "Golden seal tones debilitated mucous membranes and other tissues, increases gastric secretions and flow of bile, improves appetite, and aids digestion (Christopher 2009: 441-442).

After reading about the medicinal qualities of Golden seal, one might conclude that it has been used to treat every ailment known to humankind at one time or another. It has been used to treat chronic alcoholism, acute alimentary inflammation, biliousness, bladder problems, bronchitis, cancer, canker sores, catarrhs in the alimentary and excretory channels, and catarrh of the mucus membranes. As well as catarrh, it has also been used to treat such ailments as chronic dyspepsia, colds, chronic constipation (from sluggish liver and intestinal secretions), cystitis, general debility, digestive disorders, dysmenorrhea, eczema, and erysipelas. It is useful as an external cleansing agent and works very well with eye affections. Golden seal helps treat intermittent fevers, fistulas, flu, gastric disorders such as irritability and ulceration, glandular inflammation, gonorrhea, hemorrhage, hemorrhoids (both internally and externally), and jaundice. As well as jaundice, it has also been helpful for leucorrhea, liver troubles, lotion, malaria, menorrhagia, nasal catarrh. It has also been effective for relieving nausea in pregnancy as long as it is taken in small doses. Golden seal has been used to help with cracked or abraded nipples, pharyngitis, pyorrhea, rectal fissures and prolapsed colon, ringworm, scarlet fever, secretion deficiencies, skin diseases, open sores, spinal meningitis, stomach troubles, syphilitic

sores, enlarged tonsils (tonsillitis), typhoid fever, ulcers, uterine ulceration and erosion, and as a vaginal douche. (Beyerl 1984, Bremness 2009, Christopher 2009, Predny & Chamberlain 2013)

Grieve (1971) tells us that Golden seal is useful as a tonic, a laxative, an alterative, and a detergent. She also tells the reader that Golden seal is a valuable remedy in disordered conditions of the digestion system and has a special action on the mucous membrane. Dyspepsia, gastric catarrh, loss of appetite, and liver troubles are all known to be alleviated through the use of Golden seal. It is very effective when used as an eyewash, as a bitter tonic, as a digestive aid, and as an appetite stimulant. It is an ever popular remedy for the treatment of inflammation in the mucous membrane. (Predny & Chamberlain 2013)

As well as mucous membrane inflammations, Golden seal is used as an antibiotic, immune stimulatory, anticonvulsant, tonic, and sedative. It is also good for eye infections, as well as infections of the stomach, throat, nose, ears, intestines, vagina, and uterus. In laboratory tests, Golden seal has been shown to have antibiotic properties against numerous fungi, parasites, and bacteria. It also shows great promise for treating infectious tuberculosis. Important to note is that Golden seal is safe to take as long as the contra-indications are followed and taken seriously. (Predny & Chamberlain 2013)

## F. CONTRA-INDICATIONS OF GOLDEN SEAL

Although Golden seal is expensive due to overharvesting and deforestation, it is a very powerful tonic and should still be used when needed. Chevalier (2007) warns his reader not to take Golden seal during pregnancy. However, other herbalists have used small amounts of Golden seal to treat nausea during pregnancy with success. (Christopher 2010) Chevalier also

tells his reader that Golden seal is not suitable for children and that when taken in too high of a dose, it can irritate the mucous membranes. A good warning might be to check with an herbalist before using Golden seal and to use it in small doses when absolutely necessary.

Bremness (2009) warns not to use Golden seal for more than a week at a time. Beyerl (1984) warns that Golden seal is an abortifacient which means it is likely to induce a miscarriage. He says that because it is an abortifacient it is highly dangerous if taken later than twelve weeks following conception. Others, such as Grieve (1971) warn that Golden seal is poisonous if taken in large quantities. Furthermore, Predny & Chamberlain (2013) warn that Golden seal is poisonous if consumed in large amounts. They say it can cause mild toxicity if taken in large doses and may cause nausea, vomiting, nervousness, depression, and diarrhea. Given that Golden seal has been used for hundreds of years to treat various affections, it is safe to assume that it is healthy in small quantities especially when it is mixed with other herbs.

One famous herbalist who used Golden seal was Dr. Christopher. Dr. Christopher was a world renowned herbalist and founder of the School of Natural Healing. He was born in Salt Lake City, Utah in 1909. He was left at an orphanage as a baby where he and his sister were then adopted by Leander and Melissa Ann Craig Christopher. His ill health from childhood led him on the path of natural healing. (Christopher 2003) According to Dr. Christopher, Golden seal should not be used continuously. He said that it leaches B vitamins out of the body and should therefore not be taken for long periods of time or should only be used in small quantities in conjunction with other herbs. "Dr. Christopher said not to keep using it; he compared golden Seal to fire, which will heat your house or burn it down if overdone" (Christopher 2010: 252). Although Golden seal has a few contra-indications, it is still safely used in many modern day herbal formulas.

## G. KNOWN HERBAL FORMULAS OF GOLDEN SEAL

Golden seal is used in formulas to treat gastrointestinal infection, gastritis, and liver disorders. It is strongly bitter, detoxifying, and has a positive influence on the stomach, intestines, and liver. It helps with disorders such as peptic ulcers, candidiasis, hepatitis, and chronic gastroenteritis. As well as gastrointestinal infection, it is found in formulas for chronic infection. Goldenseal boosts the body's ability to resist and get rid of lingering infection. It will clear up infections regardless of whether they are fungal infections or glandular fever. Golden seal is often combined with Echinacea in formulas used to treat common colds and flu as well as formulas designed to boost the immune system. "Goldenseal is considered to be a synergistic or carrier herb (one that increases the effectiveness of other herbs) and is often used in combinations, particularly with Echinacea species" (Predny & Chamberlain 2013: 12).

Besides being used in formulas to treat gastrointestinal infections and chronic infections, Golden seal is also found in formulas used to treat congestion problems. It improves the health of the mucous membranes. Improving the health of mucous membranes means that Golden seal is an effective remedy for sinus and middle ear congestion. Chevalier (2007) tells us that a local application of a decoction of Golden seal is sometimes used to help with vaginal infections.

As well as a decoction, Golden seal can be used in many different forms. It can be used as a tincture, tablet, capsule, or snuff. As an herbal decoction, one ounce of dried or 2 ounces of fresh Golden seal root are added to three quarters of a cup of water and applied to the afflicted area. When used as a tincture, seven ounces of dried Golden seal or fourteen ounces of fresh Golden seal are covered with two pints of vodka and left to macerate for at least two weeks after

which time it can be taken as needed. As a tablet or capsule, it is dried, powdered, and placed into capsules with various other herbs and taken as needed. As a snuff, Golden seal is powdered and inhaled directly into the nasal passages. Golden seal powder has been shown to be useful when taken as a snuff for nasal catarrh.

Arguably, one of the most famous formulas containing Golden seal is Dr. Christopher's herbal eyebright formula. This formula was designed to brighten and heal the eyes as well as remove cataracts and heavy film from the eyes. Other herbs in this formula include Bayberry, Eyebright, Red raspberry leaves, and Cayenne. Other doctor Christopher formulas containing Golden seal are designed as a prostate aid, female organ regenerator, to aid in kidney and lower bowel health, to fight infection, clear sinuses, and feed the pancreas. (Christopher 2009, Christopher 2010)

## **H. DOSEAGE AND APPLICATIONS OF GOLDENSEAL**

Golden seal is widely used in many herbal salves and ointments as a disinfectant. Golden seal can be used orally for mouth problems or externally for vaginal ailments, skin afflictions, or nail infections. It has been successfully used for mouth ulcers, gum disease, and sore throat when taken as a gargle or as a wash. One teaspoon of Golden seal tincture is placed in a glass of distilled water and used as a gargle three times a day until the problem goes away. As well as a gargle, Golden seal can be used as a douche. One teaspoon of Golden seal decoction in one quarter cup of water when used as a douche has been shown to effectively eliminate vaginal thrush or itching. Golden seal has been used as an infusion to prevent and cure night sweats.

Besides a gargle and douche, Golden seal can be used to get rid of nail infections. It is effective against nail infections when applied as a paste of ten drops of Golden seal tincture mixed with half a teaspoon of Vitamin E oil and half a teaspoon of honey. (Bremness 2009) According to Grieve (1971), Golden seal has one more external application. She says it can be used externally as a lotion in treating eye affections and as a general cleansing application.

Golden seal is not only used for oral and external ailments, but also for internal problems. The general advice for Golden seal seems to be to take it in small and frequent doses. Bremness (2009) tells the reader to drink a Golden seal decoction as often as you like to combat emotional or mental fatigue. As well as a decoction, Golden seal can be taken as an elixir, a fluid extract, an infusion, a powder, a solid extract, or as a tincture. The recommended dosage for an elixir is one half to one teaspoon three times a day as needed. For a fluid extract, the recommended dosage is five to thirty drops three times a day until the problem is alleviated. One to two teaspoons three to six times daily is the recommended dosage for an infusion. When taken as powder, one half to two grams is the recommended dosage. Lastly, when taken as a solid extract and a tincture the recommended doses are fifty to one hundred milligrams and one half to two teaspoons respectively.

Golden seal can also be administered anally and nasally. Anally, it is used to treat chronic gonorrhoea and gleet. Nasally it is used for congestion or pulmonary catarrh. Orally, Goldenseal is used for indigestion, pyorrhoea, sore throat, dyspepsia, and ringworm. Golden seal is also used in applications where it is applied to the skin. Externally, it is used as a lotion in treating eye affections and as a general cleansing application. It can be applied to the skin for skin lotion, for eruptive diseases, erysipelas, eczema, and inflamed or sore eyes. Golden seal has also been used

as a tonic for habitual constipation. It has been given as a powder mixed with an aromatic for cases of sickness and vomiting. (Christopher 2009, Grieve 1971)

## I. PERSONAL EXPERIENCE WITH GOLDENSEAL

I heard a truck come roaring up the driveway and wondered what on earth was going on. Jay came running into the house and said, "I need help!" I looked up from my work thinking he wanted me to go and help him with the excavator. Actually, the radiator cap had blown off the excavator and two hundred forty degree Fahrenheit anti-freeze had sprayed out and hit him directly in the face. My first concern was shock and whether or not he had gotten any anti-freeze in his eyes or mouth. While I got the herbs ready to treat his face, I made him run cold water over the burn. He didn't like the cold water on his face and kept saying he wanted to go for a walk. Knowing he was probably in shock, I put a teaspoon of cayenne in a glass of water.

Finally, I told him he could go for a walk if he drank the cayenne and water first. He agreed to drink the cayenne. As soon as it hit his stomach, he calmed down and went to the couch where he stayed for the rest of the evening. In the meantime, I had been making a herbal fomentation of comfrey, goldenseal, and lobelia. I had no honey or wheat germ otherwise I would have used those two items to make a poultice. I soaked a clean cloth in the fomentation and placed it on his face with an ice pack. While that started to work, I put the rest of the mixture in the fridge to cool off. He was complaining about the pain, so I gave him several White willow capsules. For the rest of the night, I kept soaking cloths in the herbal fomentation and placing them on his face. I also gave him Reiki which seemed to help with the pain and kept him quiet and relaxed.



The next morning, his face looked quite scary but was already starting to heal. I tried to get him to keep the fomentation cloths going the second day, but I only convinced him to keep them on for the morning and then again that night. Fortunately, the anti-freeze had missed his eyes! By the third day, he was applying a Comfrey, Golden seal, and Lobelia salve several times a day. His burns healed beautifully without any scarring whatsoever.

Not long before the burn incident, the door of the house had burst open and Jay had come running in again! He had been using an electric grinder which had been fixed so that it would automatically stay going even if your finger wasn't pushing the 'on' button! Anyways, it had somehow slipped out of his hands and literally attacked him. He had bleeding wounds across his shoulder, chest, arm, and stomach. The only herb we had on hand at this time was Golden seal. So after cleaning out his wounds, I applied Golden seal root powder directly to his lacerations. They healed very fast and there wasn't any infection!

It is important to note that Golden seal doesn't have to be reserved for human use. The first time I ever really heard about it, my friend Chris told me she had used it on her dog. Her dog, Tripod, a black lab had been playing with another dog. One of the other dog's canine teeth had someone lodged itself into Tripod's skull. Apparently the wound was very deep and bleeding profusely. She packed the wound with powdered Golden seal root and Tripod carried on like nothing had happened. The wound healed quickly and perfectly with no infection.

## **J. CONCLUSION**

Golden seal is an amazing herb with many uses, but should be used with caution and diligence. It is an endangered species, so when possible, another herb should be used in place of

Golden seal in order to make sure it doesn't become extinct. The use of Golden seal dates back to early Native Americans who used it medicinally. They used it medicinally, as a dye, and for religious ceremonies. It was the Native Americans who first introduced Golden seal to White society. By 1850, Golden seal was being bought and sold commercially. Today, over-harvesting and deforestation have resulted in it becoming a rather expensive commodity.

Golden seal, which is a member of the Buttercup family, is native to North American woodlands. It contains three main alkaloids. The alkaloids contained in Golden seal are berberine, hydrastine, and canadine. These three alkaloids give Golden seal its medicinal qualities. It has been used to treat everything from chronic alcoholism and cancer to canker sores and glandular inflammation. Although it is a potent medicinal herb, Golden seal should only be taken for short periods of time or only in small quantities mixed with other herbs.

Today, Golden seal is used in formulas to treat gastritis, liver disorders, and gastrointestinal infections. It is very popular in cold and flu formulas where it is often found mixed with Echinacea. It is extremely effective when mixed with other herbs to restore eye health. It is used in both dried and fresh states. It can be used directly as a powder or made into an herbal salve, a fomentation, or a tincture. Golden seal can be used either internally or externally. Given the success I have had with it, and the fact it is effective for both humans and dogs, Golden seal will continue to be part of my herbal cabinet.

### Works Cited

- Beyerl, Paul. The Master Book of Herbalism. Phoenix Publishing Inc. 1984.
- Bremness, Lesley. The Essential Herbs Handbook. Duncan Baird Publishers. 2009
- Chevalier, Andres. Herbal Remedies. DK Publishing. 2007.
- Christopher, David. Dr. John Raymond Christopher: An Herbal Legacy of Courage. Christopher Publications. 2003.
- Christopher, John R. Herb Syllabus: Master Herbalist Guide. Christopher Publications. 2010.
- Christopher, John R. School of Natural Healing: Centennial Edition. Christopher Publications. 2009.
- Grieve, Mrs. M. A Modern Herbal: Volume I. Dover Publications. 1971.
- Predny, Mary L. And Chamberlain, James L. Goldenseal (Hydrastis Canadensis): An Annotated Bibliography. Retrieved April 1. Retrieved April 14, 2013.  
<http://www.sfp.forprod.vt.edu/pubs/sfpdoc10.pdf>.