



Fabrice Figliolini, who was born and raised in France and grew up using homeopathic medicine, is the Vice President for Finance, Human Resources, Information Technology, and Supply Chain at Boiron USA in Newtown Square, Pennsylvania. He also serves on the NCH Board of Directors. He earned his BBA in International Business and his MBA in Management Information Systems from Temple University. He enjoys working with a team driven to change our healthcare system by helping people view their health in a more holistic way.

I am passionate about homeopathic medicine since I have witnessed for many years its positive impact on myself, my family, and many of my friends. In fact, I've been raised on this therapeutic system since infancy. I was excited to join the National Center for Homeopathy's Board of Directors in 2017 to help further the NCH's mission of promoting health through homeopathy, especially through education and awareness.

As a member of NCH, you probably know more than a few people who have been introduced to homeopathy via the humble homeopathic remedy, *Arnica montana*. Maybe *Arnica* was your avenue of introduction. But do you know how *Arnica* gets from the farm to your medicine cabinet? As Vice President of Supply Chain at Boiron Inc.'s Pennsylvania headquarters, I'd like to share my firsthand knowledge of this journey with you. The

cally blooms around the summer solstice but can flower as late as August, depending on the levels of vegetation.

Don't be fooled by flowers of similar appearance and name. In 2016, the American Botanical Council warned that some products listing *Arnica montana* on their label may not actually contain this strain but rather Mexican *Arnica* (*Heterotheca inuloides*) or other similar flowers.

The harvest

Control over the authenticity of the starting material begins with supervision of cultivation, harvest, and transportation of the *Arnica montana* botanical substance to the homeopathic manufacturing facility. The *HPUS* specifies the range and habitat for *Arnica montana* as Northern and Central Europe (roughly from Sweden to northern Spain) and Siberia. It specifically excludes Mexico and the southern United States. *HPUS* standards also require *Arnica montana* to be harvested away from industrial or urban zones, roads or farms, to avoid contaminants such as fertilizers and pesticides.

Scouting and preparatory work such as GPS coordinating, making notes, and taking pictures of the land are all important preliminary steps to guarantee the harvest runs as smoothly as possible.

Harvesting the *Arnica montana* plant requires know-how and experience, which is why Boiron has a long working history with many of its suppliers. Good Agricultural Practices (GAP) require growers and buyers of botanical materials to know with certainty the origin and quality of materials used in the production of homeopathic preparations. To be a part of Boiron's harvest, pickers must have a background in botany to harvest only healthy flowering *Arnica*.

These skilled pickers and the lab personnel need to be flexible to make quick adjustments. The harvest date is often postponed due to poor weather conditions or advanced due to an early bloom.

Arnica montana: from Farm to Medicine Cabinet



By Jonas Jungblut for "Naturally, Danny Seo."

more you know, the more you'll appreciate the wonders of this amazing remedy—and the careful way it is produced, according to the standards of the *Homeopathic Pharmacopoeia of the United States (HPUS)*.

Beautiful diva

In grassy upland meadows amid hills and mountains, hundreds of yellow daisies add eye-popping color to the French countryside before becoming one of the most popular homeopathic medicines in the world. Commonly known to relieve muscle pain, stiffness, and swelling from injuries and bruises, *Arnica* can be found even at mainstream U.S. retailers these days. The beautiful flower, however, can be found in only a few locations.

Earning the name "diva plant," *Arnica* grows only in high altitude meadows above 2625 feet. *Arnica* also requires specific soil and climate to flourish and bloom. Truly a summer flower, it typi-

Did You Know?

Arnica's healing properties have been known since at least the 12th century, and the description of the plant written by abbess Hildegard of Bingen (Saint Hildegard, 1098-1179) is used in the traditional Pharmacopoeia.

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When the date arrives, the annual harvest begins bright and early. Regis Buffiere, a medicinal plant gatherer for over 33 years explains, "We set up on a hill at the authorized site. Then we start with a small picking demonstration for the new pickers, and we remind everyone of the rules."

For example, the skilled, specialized harvesters must have impeccable hygiene before harvesting the plants and make sure that the plant has no weeds, dirt, or insects in it, guaranteeing it is as clean as possible.

Understanding the plant's structure and the landscape is also crucial for uniformly picking the plant, as well as the sustainability of the species. This diva plant is threatened by its selective environmental needs and by human activity, including overharvesting as the popularity of *Arnica*-based products increases. To ensure the survival of the species for future generations of medicine, harvesters throughout Europe must sign an agreement to pick only a slim 30 percent of a site's potential yield.

Once handpicked from the ground, the plants are placed vertically in open work-bags or crates to ensure better conservation. Then, the containers are placed in the shade so the plants do not heat up. Maintaining the cleanliness and temperature is important during the transport of the plants from the field to the facility. The *Arnica* pickings are stored and transported in clean, refrigerated trucks where they must then be delivered to the laboratories within the two-day time frame for optimal freshness.

Ensuring purity

When the batch of *Arnica* arrives at a homeopathic manufacturing lab, the plant undergoes a battery of tests conducted by a team of botanists and pharmacists required by *HPUS*, starting with botanical recognition to verify it is the right plant. The plants must be sorted

from all other plant species and cleaned of anything else foreign to the plant (dirt, wood debris, stones, insects, parasites, compounds from other plants, etc.). The health condition of the plant must be perfect, without any contamination from aphid attacks, diseases, rust and powdery mildew, fungi, or other impurities. Laboratory technicians make sure the plant has not been damaged during transport. They measure the moisture level, checking for dehydration of the plant, and test for radioactivity using a Geiger counter.

The team also examines the plant quality to verify the presence of all active compounds. These substances generally help the flower protect itself from its surroundings. From root to petal, the whole plant is used to make the homeopathic creams, gels, ointments, tablets, and pellets you know and love.

Sesquiterpene lactones, with their anti-inflammatory properties, are found in the tiny hairs of the stem, petals, and leaves of the flower. Their bitter taste is used to protect the plant from herbivore animals.

Flavonoids, widely represented in the phlebotonic and anti-inflammatory class of medicines, are a family of compounds that can also be found in the stems and leaves of *Arnica montana*. Their antioxidant activity makes it possible for the plant to protect itself from the damaging effects of sunlight.

Essential oils (mainly thymol, used pharmaceutically for its antiseptic properties) can be found in the flower and leaves but are mainly in the rhizomes and roots. The oils help to protect the plant from bacteria and fungi contained in the soil.

After these numerous quality control tests, it's time to prepare the homeopathic tincture according to the *HPUS*. Afterward, there are more tests! To manufacture homeopathic medicines, companies and their staff must develop expertise in

precision manufacturing and handling of micro-doses.

Taking care of *Arnica*, so it takes care of you

From the field to your home, each stage of *Arnica*'s journey is controlled and tested to guarantee it is the best quality possible. Now, when you see the acronym "HPUS" on the label near the active ingredient, you have an idea of the methodical process that turns the plant from a beautiful flower to the amazing pain reliever it is.

NCH works hand in hand with the American Association of Homeopathic Pharmacists and the Homeopathic Pharmacopoeia Convention of the United States to provide access to homeopathic products made according to the high standards of these associations. Your ongoing support of NCH is vital to keep the flame of homeopathy alive! Thank you for your membership and contributions. Visit www.homeopathycenter.org

Written by Jenna Stetler, special projects writer for Boiron USA, from an interview with NCH board member Fabrice Figliolini.



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