

Dear BioNova Partners & Customers,

Summertime means time for vacations! And what are vacations without swimming? So in this current newsletter we want to show you a BioNova Minipool which certainly puts you into vacation mood. Furthermore, we will introduce to you BioNova partner Sechser GmbH from Karlsfeld, Germany, near Munich. And as mentioned in our last newsletter, we will explain how the 100 % biological water treatment in a BioNova NSP works. Last but not least, the BioNova Historical column will feature an NSP built in 1995 for an Austrian hotel. Enjoy reading!
Your BioNova Global Head Office Team

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Project of the month



Our long-time partner "Garten- und Landschaftsbau Zinke" based in Arenshausen (Thuringia / Germany) has proven since 2002 that lack of space is no reason to go without an NSP. He answered his client's requests for a little vacation paradise in his own yard in Northeim (Lower Saxony / Germany) by building a small BioNova Minipool that measures only 614 ft².

Swimming area and regeneration zone are not separated in this pool. The oval swimming area is about 6 ½ ft. deep, bordered by granite stones and surrounded by the planted regeneration area, where the used water is cleaned purely by biological processes, without chemicals. Overflow gutters, fine filter and a small circulation pump provide a little added filtration help.

Traverse the regeneration area over a footbridge to the swimming area where a small wooden terrace invites you to relax and stay awhile. Go on vacation - at home - anytime you like!

The BioNova Family



Since 1988 the landscape contracting company „Sechser GmbH“ has worked in the Munich region designing new gardens or recreating old ones, constructing pathways, terraces and walls. With creative ideas and great conceptual garden designs, the well-know company has acquired an excellent reputation throughout the Munich region.

The company decided to join the BioNova Family back in 2000. Their customers have profited from the staff's decade of practical experience in NSP construction.

The company has 10 well-trained employees.

The design of their Natural Swimming Pools is characterized by the multifarious use of natural stones. They use it for under-water separation walls, as well stones or as paving stone for terraces or paths.

Dates 2011

Training events, fairs, meetings – we've got a lot going on with the BioNova Family! Review the following to see where the next activities of the BioNova Global Head Office and the BioNova Partners will take place:

August 2011

Informational Event

August 27, 2011, Binningen (Switzerland)

On Saturday, August 27, 2011 the company VIVA Gartenbau AG (Bündtenmattstr. 11, CH-4102 Binningen) will open its doors for an information event about Natural Swimming Pools. Find more information:

www.viva-gartenbau.ch/html/4veranstaltungen.html

September 2011

Industrial Exhibition

September 3 - 4, 2011, Gudensberg (Germany)

During the first weekend of September the team of the landscape construction company Niklasas Sobotta will present BioNova Natural Swimming Pools at the regional industrial exhibition in Gudensberg.

BioNova Summer Meeting 2011 Recap



On July 7 & 8, 2011, over 50 BioNova partners came to the annual summer meeting in Niedenstein, Germany. Companies from Germany, Switzerland, Italy, France, Luxembourg, the Netherlands, Sweden, Romania, Turkey, Great Britain, the Czech Republic and the USA came to learn more about the BioNova System through multiple workshop sessions.

The theme focused on water plants, maintenance of natural swimming pools and machines for cleaning natural swimming pools. For example, we introduced a new robot that simplifies the cleaning of NSPs.

On the first evening, everyone came to a garden party at Niklas Sobotta's house. The next day we visited some local NSPs built by Niklas Sobotta. We want to thank the Sobotta family once again for these 2 beautiful days!

How does a Natural Swimming Pool work?



Perhaps you have already wondered how water treatment could work without any chemicals. As promised in our last newsletter, we will start to better explain the technical functions of an NSP. For this purpose it is necessary to impart some basic scientific knowledge, seeing as the BioNova System is grounded on the principles of limnology, or the science of fresh-water systems.

Natural swimming and bathing pools basically work by the same ecological processes that occur in natural lakes. As in every ecological system, the natural balance of individual components is very important. In case of a natural swimming pool, it is the perfect balance between phytoplankton (algae in the broadest sense) and zooplankton (microorganisms) that

matters most. Natural processes occurring here are further supported by water plants, filters and mechanic cleaning, so that the system can still remain stable at periods of high stress on water quality (high numbers of visitors, changes in temperature, great heat, etc.).

As the Zooplankton play an important part of the water treatment in NSPs, we want to introduce an interesting representative of the crustacean species: the water flea (daphnia)

In contrast to what its name would indicate, the water flea has nothing in common with the well-known parasite. In fact, the water flea is a tiny crab, only visible with a microscope. There are more than 100 types of water fleas in our natural water bodies, making them the most common species of crustaceans in stagnant waters.

The water flea's body is transparent so you can see all of their internal anatomy.

Water fleas breed in the summer and usually survive through winter. The insects typically get into an NSP when new water plants are added, and then they breed there permanently.

In one cubic meter of water there will be approximately 35,000 water fleas. They are good for water quality because they filter the water many times a day through their bodies, killing germs in the process. Additionally, they reduce phosphate content in the water, which promotes algal-growth when unchecked. Each of these tiny water fleas can filter up to 66 ml water / day.

Although they are very small (only 1 - 5 mm) they dramatically help the water in an NSP to stay clean. Fishes love to eat daphnia, so this is an important reason why you cannot keep fish in your NSP. They would decimate a very important source of water filtration.



BioNova Historical



In 1995, an NSP was built for the hotel Dietlgut at Hinterstoder (Austria) according to the latest state-of-the-art techniques. The NSP is 197 ft long and 12 ft deep at the deepest part so that it has a total water volume of 9688 ft³. 4306 ft² of that can be used for swimming and bathing and 4382 ft² are planted regeneration area.

According to the marketing concept of the „child-friendly hotel“ the owners wanted to offer their younger guests a natural swimming experience in chemical free water. So the BioNova team replaced the 40 x 26 ft² chlorinated pool with a natural swimming pool.

The size of the property and the topographical circumstances defined

the building method and the size of the NSP. Swimming area and regeneration area were separated, with a floor level difference of about 5 feet. The aim was to ensure unimpeded progress of the natural cleaning processes even on very hot days or days with more bathers than usual.

For the so called 2-pot-building-method, there are two water basins. One is used as a swimming and bathing pool, totally free of plants or animals. The other one, the regeneration area, is used for water treatment. It looks like a green oasis and the guests love to relax in the natural atmosphere. But the work of water treatment also takes place here: the used water from the swimming area is pumped into the regeneration area and treated with the help of the water plants and a Bio-filter, and is oxygenated without using any chemicals. The fresh, clear water is then pumped back into the swimming zone.