Pond Filters: How to Choose the Right Pre-Filter for Your Koi Pond

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Q. I have a 2,000-gallon pond heavily stocked with various types of Koi. The biological filter is constantly clogging up with debris, causing it to overflow. What kind of filter could I incorporate into my system to help with this problem?

A. This is a common problem with larger Koi ponds due to the amount of debris normally collected or created within such a large body of water. Biological filters are excellent for helping reduce waste toxins like ammonia and nitrites, but to handle larger debris such as leaves and twigs falling into the pond (and clogging your bio filter), mechanical filtration also needs to be incorporated into your pond system.

A mechanical pre-filter should be used to keep the water pump from becoming clogged with debris. There are two main types of pre-filters available. The first type draws water off of the bottom of the pond. This type of filter is a good choice for smaller ponds, with smaller amounts of debris and less maintenance requirements. Examples include pre-filters such as the Pondmaster, Laguna, Powerflo, Nautilus, and Modular Mechanical.

For a larger pond, the ideal mechanical pre-filter is a skimmer. Skimmers draw the water off of the pond's surface, trapping any floating debris before it can break down and become suspended in the water or settle over your submerged pump. Skimmers are typically placed at the edge of the pond where they can be easily maintained.

The two types of mechanical pre-filters cannot be used in combination. However, if these pre-filters do not produce the desired filtration or if the biological filtration becomes clogged, a high-rate sand filter can be added to improve biological filtration in your pond. These sand filters use a canister-type design filled with a fine sand. When water passes through the canister, the sand traps most debris. A pressure gauge is located on the filter to indicate when the filter needs to be cleaned. These filters are cleaned by simply backwashing the debris out of the sand-filled canister.

Either type of pre-filter and a high-rate sand filter (which is not necessary, but very effective), can be incorporated with your biological filter. The pre-filter is placed before the pump and the sand filter is placed between the pump and the biological filter. These mechanical filters will increase the performance of your biological filter and keep it free of debris.

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