



STILL WORKING ON THE 2012
CATALOGUE AND WAITING FOR
PRICING FROM SUPPLIERS

HOPE TO HAVE IT UP BY APRIL

THANKS FOR YOUR PATIENCE

THERE ARE OF COURSE SOME PRICE
CHANGES, NEW PRODUCTS, BUT
90%+ IS STILL APPLICABLE

2010
CATALOGUE

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LEADING THE WAY IN OUR MARKETPLACE

Hello, my name is Randall Clarke, President of Clarke Koi Ponds inc.

I was very fortunate to visit Japan this past Winter. We saw breeders for a few days, then took in the 41st. All Japan Koi Show. In a word, WOW. Almost too many koi to see, with great quality in every vat. Truly an experience I would



41st. Grand Champion
All Japan Koi Show

recommend to those serious about the hobby. For more about the trip, see page 16 as well as our website under - koi info/outings/Japan

Now back to earth and looking forward to another successful year at Clarke Koi Ponds inc. I want to make it clear to any potential new clients that **we are a company that is interested in serving you in a professional manner.** We are here to support and address any of your concerns and we stand behind what we sell. Having

personally gone through some negative experiences recently, you wonder how some businesses manage to stay open - we vow to remain committed to our clients

As more and more koi shops open, claiming expert status, remember there is only one Clarke Koi Ponds. With vastly more experience and credentials than any of our competitors, I ask you to carefully consider who you choose to help you with your pond and koi. We heard of a few too many horror stories last year, when people received the poor advice and lost fish - which is a real shame

This past winter we made some major renovations to our shop, building 11 new tanks and restructuring the back to deliver a cleaner layout with less clutter. We now have over 3,000 gallons more water which will allow us to stock more fish

Our huge website features a **44 pond portfolio** unlike any you are going to find on the internet. A client once said to me "all signs point to Clarke Koi". I hope you will agree



Me at the All Japan Show

As our pricing fluctuates, we update the electronic version of our catalogue - available for download at www.clarkekoi.com

Please enjoy your 2010
pond season !

Randall Clarke



One of our pond builds from 2009

HOURS OF OPERATION & DIRECTIONS

MONDAY APRIL 12 TH. TO JULY - open 7 Days a week

Monday - Friday, 11 am - 7 pm

Saturday 10.30 am - 4.30 pm, Sunday 11 am - 4 pm

JULY & AUGUST - open 6 days a week [closed Monday]

Tuesday - Friday, 11 am - 7 pm

Saturday 10.30 am - 4.30 pm, Sunday 11 am - 4 pm

SEPTEMBER & OCTOBER - open 5 days a week [closed Monday, Wednesday]

Tuesday, Thursday, Friday 12 - 7 pm

Saturday 10.30 am - 4.30 pm, Sunday 11 am - 4 pm

NOVEMBER - open 3 days a week [closed Monday, Tuesday, Wednesday, Friday]

Thursday 12 am - 7 pm

Saturday & Sunday 11 am - 4 pm

DECEMBER - APRIL - open Saturday only

Saturday 11 am - 4 pm

Please Note: We are at the shop everyday so often there when we are closed - just call ahead if you would like to stop by

* Please note **Randall works most weekends** at the shop if you wish to meet and speak with him personally. He is also often in the shop from 11 - 12.30 weekdays

DIRECTIONS - Clarke Koi Ponds inc. is located at 763 Warden Avenue, unit 10. Although we have a Warden address, the **entrance to the shop is just East of Warden on Comstock Road**. Comstock is the **second light South of Eglinton** Avenue East and runs East / West. Landmark wise, **just look for the big white water tower and you are 2 minutes away**



CONTACT INFORMATION

MAILING ADDRESS

Clarke Koi Ponds inc.
763 Warden Avenue, Unit 10
Toronto, ON, Canada M1L 4B7

PHONE NUMBERS

Shop : 416-757-6328
 Toll Free : 1-888-757-1807

Randall's Cell : 416-459-7895
 David's Cell : 416-709-7895
 Brian's Cell : 647-239-7895

INTERNET

www.clarkekoi.com - **100 pages** of koi and pond information, pictures and free downloadable videos

E-mail us - clarkekoi@gmail.com



RENTALS & BARTERING

We rent a variety of pond related equipment. Whether it is a large show tank to house your fish during a pond clean out, an aerator or water meter, you can rent just about anything related to pond keeping on a daily, weekly or monthly basis from us. **Check our website "Rentals" page** for more info

We also have a "Used Bargains" page on our website. If you have any fish or used products you would like to trade-in or sell from our website, just call and we can work out a mutually beneficial exchange. **Advertise for free**, a small fee (\$ 25 - \$ 100) is charged only if your item sells

WE ALSO CONSTRUCT, SERVICE & CONSULT

Our construction experience and knowledge in koi ponds leads the Toronto Marketplace. We can undertake the entire project from start to finish or simply handle any segments of the construction you require help with. For example, we often install bottom drains because clients aren't comfortable with cutting the liner. Please **visit the portfolio section of our website** along with the testimonials, fundamentals, bottom drains, filtration and pricing pages for info and ideas

We also perform **pond servicing** which includes **openings/closings, maintenance, leak repair, disease diagnostic** - everything for your pond. The **our services page** at clarkekoi.com goes into greater detail on what we provide

We also consult on all facets of the hobby, providing you with invaluable information. Taking advice from those who have built a couple of ponds can be helpful but does not compare to what we provide as we do this for a living. Unfortunately most of our pond builds are actually rebuilds - **eliminate the "should have's"** and consult with us first before you begin so you can get the best result

POND CONSTRUCTION & SERVICING - \$85.00 / 1st. HOUR / MAN*

Additional hours billed at \$19 / 1/4 hr. / MAN

*Plus call charge. Please **see the website for complete pricing information** or page 10 of this catalogue for our current rate sheet

ON SITE CONSULTING - \$160.00+, PHONE CONSULTING - \$75.00 / HOUR

If you are planning on building a pond you should strongly consider a consultation. The \$160.00 fee includes up to 1.5 hours on site, estimate preparation and follow up assistance. **Phone consulting** is available across North America. Email to book a time, evenings are best. Remember, **we will save you money with a enlightening pond consultation**

MAIL ORDER INFORMATION

Clarke Koi **ships goods across North America and beyond**. We charge a \$ 7.00 packing fee per order. Costs vary but as a general rule, most mail orders total between \$ 10 - \$ 20.00 for both packing and shipping charges. Canada Post and a freight company handle our deliveries. Unless otherwise requested, orders are shipped expedited with Canada Post [at the same cost as standard] and insured. "Expedited" will arrive in about 5 days if you live on either coast, Provinces neighbouring Ontario receive orders within 1-3 days

ORDERS SHIPPED OUTSIDE OF ONTARIO PAY
NO P.S.T. (N.B. N.S. NFLD. PAY H.S.T.)

Shipping Koi - Air Canada OR Bus

Our Fees for Booking, Packing and Travel to Carrier:

Air \$ 75.00 for the 1 st. box, \$ 10.00 for each additional
Bus - \$ 40.00 for the 1 st. box, \$ 10.00 each additional

Carrier Freight Charges

Air: \$ 175.00 to West Coast, \$ 140.00 to the East Coast [approx. per box]
Bus: \$ 55.00 [approx. price, only available within a 8 hr. driving radius from Toronto]

Methods of payment [before shipping] include Visa, Mastercard, Cheque, Money Order

WWW.CLARKEKOI.COM

Please **visit our HUGE website !**

Over **100 pages** of information, photographs and free downloadable videos. You can also view our extensive construction portfolio [44 ponds] plus **see pictures of the Japanese Koi we have for sale**



WHY DO BUSINESS WITH CLARKE KOI PONDS ?

Our mandate has always been to **do what is in the best interest of our clients and their fish**. We give you the best advice we can for your situation - even if that means we recommend you don't make a purchase. Because your **ponds design ultimately determines your success**, it is integral to consider many factors when building or upgrading with new equipment. Everyone would like their pond to house healthy fish, have clear water and require minimal maintenance. To achieve these goals you need to cut through the glut of marketing hype that exists today. The reality is **building a proper low maintenance pond is expensive and requires a lot of effort**. In most cases, cutting corners will cost you far more in the long run

Randall Clarke has almost 30 years of pondkeeping experience and has kept koi since 1983. He brings his vast experience and commitment to Clarke Koi Ponds, helping guide you in the right direction in a no nonsense direct manner. This involves **much more than merely reading the label or espousing marketing verbiage** - it means recounting first hand installation and observation of a product working in the real world. There in lies the truth as to whether a product will meet your expectation and perform as advertised. As we all know, many times products fail to perform as promised

When you take everything into consideration - Our vast first hand experience, our knowledge, our honesty, our service before and after the sale, our return policy and our level of organization, **Clarke Koi Ponds inc. is a company you will feel confident in dealing with...**

NEW PRODUCTS FOR 2009

ZIEGLER KOI FOOD

A good food available at a reasonable price in bulk quantities [5 and 33 lb]. Comes in 3 blends...

pg 47

KOI - 3 POSTER SET

Brush up on your koi identification with this beautiful 3 poster set featuring the multitude of koi varieties. Fully laminated, measuring 2 x 4 feet each...

pg 22

LAGUNA LED LIGHTS

More efficient and longer lasting than regular lighting. In or out of the water, auto on/off sensor...

pg 33

FLOATING LILIES

These artificial lilies are lifelike but never need fertilizing !!!



RETURN POLICY

- **2 Week Refund, 4 week Shop Credit**

Products can be returned within 2 weeks from the date of purchase for a full refund of the purchase price **when originally purchased by cash, debit card or cheque**. [credit card purchases are subject to a restocking fee, see below]. Items can be returned up to 4 weeks after the purchase date for a shop credit regardless of payment method

- **5% Restocking Fee may apply with Credit Card Purchased Returns****

If you paid by credit card, a 5% restocking fee may be applied. We are charged 2.5%+ by the credit card companies at the time of purchase which is not refunded to us [even if the transaction is reversed via a refund]

In the case of **mail order return, we do not refund the packing and freight charges** - only the product and applicable taxes. Additionally, it is your obligation to cover costs incurred to return the product to us

- **Items returned must be unused with original packaging - suitable for resale**

If you have a warranty issue, we will provide you with a new product if possible. If the manufacturer requires the product to be returned for repair, we are happy to assist you with that process

Because of the nature of **keeping fish, we do not allow exchanges on fish**. If a fish is lost within a 2 week time frame from purchase, **a shop credit can be discussed on a per incident basis**

Thank you for your patronage

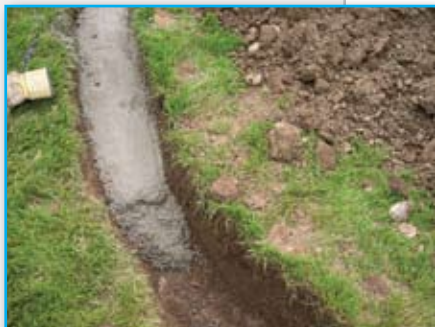
POND CONSTRUCTION IN 12 STEPS

Clarke Koi Ponds inc. prides itself in the installation of properly designed Koi ponds. Utilizing proven techniques in filtration, aeration, UV sterilization and heating enables us to construct a pond that provides sparkling clear water with a realistic maintenance regime

Please visit www.clarkekoi.com to view our extensive 44 pond portfolio. Remember, **pond construction is a "Process"** and can't be completed in a week or two. Be wary of those that tell you what you want to hear. We are happy to meet with you to discuss your pond build...

1) CONCRETE COLLAR

The concrete collar is **integral part of the process**. It sets level for the pond, provides a solid base for the rock work, defines the pond perimeter and inhibits soil cave ins...



2) EXCAVATION

Excavation is the **physically challenging segment** of construction. Even with the use of power equipment, there will still be a lot of hand digging to shape the shell and dig in airlines, jets and drains...



3) BOTTOM DRAIN

The key to a successful pond is a bottom drain. The bottom drain **provides optimum water recirculation** by continually vacuuming out the ponds floor. It gravity feeds the filter system, effectively removing larger detritus that couldn't otherwise be removed with a submersible pump...



4) POND PLUMBING

Plumbing makes the pond. This includes jets to exercise the fish, aeration stations and the ability to easily remove components from the system if required...



5) UNDERLAYMENT

Geosynthetic underlayment is an **important membrane to install**. It not only protects the liner, it also wicks away ground water. If you choose to heat your pond we will insulate it as well. Geosynthetic **should also be placed between the rock and liner** inside the pond to cushion the liner from damage...



6) LINER INSTALL

A great liner choice is E.P.D.M. rubber liner which has a **durable 45 mil thickness**. After installation, the bottom drains are cut and glued in...



7) LINER TAPING

As the pond filling progresses, the **liner needs to be taped down** to eliminate folds and dead spots. If the taping process is skipped unsightly folds will result and debris may be trapped and start to decay...



8) WATER & AIR SYSTEMS

Energy efficient pumps are utilized to recirculate and filter the pond water. Air systems are pivotal for both backup and to **maintain oxygen saturation levels** for both the fish and nitrifying bacteria....



9) FILTRATION

The filter system is the **cornerstone of your pond**. It provides the fish with good water quality and clarity so you can enjoy your koi collection. You need to approach the build with the concept that **the filter is the #1 consideration of the project...**



10) STONE WORK

The type of stone chosen and its placement **can make or break the aesthetics of your pond**.

Effective stonework is an art and to get a pleasing finished look often requires the use of a backhoe and straps. Of course, the concrete collar [step one] insures that the stone has a solid base...



11) FLORA

Properly selected plants go a long way to **achieving a natural ambiance**, especially when they are overlapping the stone to soften the overall look...

12) TALENT

The goal from the onset is to **create a pond which meets the expectations of the client**. The all important design, details & finishing touches bring the entire project together both functionally and aesthetically. This requires both technical and creative ability which most do not possess...



2010 RATE SHEET

PLEASE NOTE - ALL BILLING FOR OUR SERVICES IS BASED ON TIME AND MATERIALS

Labour Rate - \$ 85.00 / 1st. HOUR / MAN

- Additional hours billed in ¼ hr. increments at \$19.00 / Man [\$76.00 / hr.]
- **Minimum charge is 1 Hr. + Call Charge = \$ 120.00** [see below for call charge info]
- Taxes applicable

Consulting - \$ 160.00+ [in zone 1] - Get All Your Pond Related Questions Answered

- Price includes a **maximum of 1.5 hours of on-site discussion** with follow up assistance via email and/or telephone at no charge
- Additional time beyond 1.5 hrs. charged at \$ 85.00 / hour rate
- Out of zone consults pay straight time for consult including travel to, time on site with return travel time to be negotiated [usually ½ of travel time back]

Disease Diagnostic - \$ 135.00+ [zone 1] - Microscope Analysis

- Complete testing equipment and medications in our vehicles **for immediate help**
- Treatments applied are based on catalogue pricing

Call Charge

- Fee for preparation time and travel to your location
- The minimum charge is \$ 35.00 for 1 pond tech traveling to a Zone 1 location

Zone 1 - \$ 35.00 (+ \$ 10.00 for each additional man ie. 2 men = \$ 45.00)
Toronto, Etobicoke, North York, East York, Scarborough

Zone 2 - \$ 45.00 (+ \$ 20.00 for each additional man ie. 2 men = \$ 65.00)
Mississauga, Brampton, Vaughan, Richmond Hill South, Markham, Pickering, Ajax

Zone 3 - \$ 55.00 (+ \$ 30.00 for each additional man ie. 2 men = \$ 85.00)
Oakville, Milton, Halton Hills, King, Richmond Hill North, Aurora, New Market, Stouffville, Whitby, Oshawa

* *locations outside of the above zones are charged at \$ 62.00 / hr. for travel*

* *most service calls are 1 man jobs, Construction 2 or more men*

Pond Construction Levy

- There is a 2% levy [before taxes] on all Pond Construction Services.
- This charge **covers the costs of miscellaneous parts utilized** which are too minor to track and bill for but do add up over the course of the project. ie. glues, various fasteners, small pipe work etc.

Shop Services

- Water Quality Testing - \$ 7.00
- Microscope Mucous Analysis - \$ 12.00
- Disease Treatment - \$ 87.00 (cost for first month which includes basic meds. Some meds extra)

Above rates do not include applicable GST + PST

Please see the website for additional information (Our Services & Pricing page)

We do not mark up parts on service calls, pricing based on catalogue prices

COMPLETE POND SERVICING & UPGRADES



WATER QUALITY 101

pH

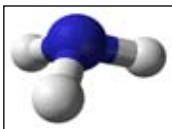
"Positive Hydrogen" is a way to describe this **measurement of the relative acidity and alkalinity** of water. A neutral pH of 7 means an equal amount of acids and bases. Koi prefer a pH between 7 - 8.5. Stepping out of this range will effect reproduction, nitrification and in extreme cases, the fish may perish of acidosis or alkalosis

During nitrification, H^+ ions are released when bacteria turn Ammonia, NH_3 , into Nitrite, NO_2^- . If not buffered, these H^+ ions will form weak acids, lowering your pH over time and potentially "crashing it"

Avoid subjecting fish to sudden pH changes, a stable pH is desired. Remember the pH scale is logarithmic, a 1 pt. shift (ie 7.0 - 8.0) represents a 10x more basic solution

Ammonia - NH_3

This molecule is responsible for many fish deaths. The relative toxicity of this form of nitrogen increases as pH increases because in water with a lower pH, Ammonia (NH_3) will take the form of the Ammonium ion, (NH_4^+) which is far less toxic than Ammonia

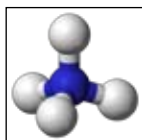


To alleviate high Ammonia readings, stop feeding, perform water changes, use a Ammonia binding chemical (pg. 52 Ammo-lock), Zeolite (pg. 54) and lower the pH...

Ammonium - NH_4^+

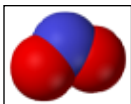
Although far less toxic than Ammonia, excess Ammonium is not a desirable compound to have because it could be converted to ammonia if there is a pH drop

Excess levels can indicate a small and/or poorly functioning filter, low buffering or perhaps overfeeding



Nitrite - NO_2^-

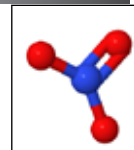
This ion is highly toxic to fish because it **interferes with their uptake of oxygen**. Fish can die from what is known as "brown blood disease". The bacteria that convert Nitrite to Nitrate (Nitrobacter) take longer to mature or "cycle" than the Ammonia bacteria, Nitrosomonas (partly because they require the presence of Nitrite)



The introduction of salt to the pond (at 0.12%) will reduce the toxic effect of Nitrite - but not indefinitely. As always, maximize aeration and for chronic high levels consider installing a trickle tower which are great at reducing nitrite levels. Keep your pH above 8 to reduce the influx of ions into the fish

Nitrate - NO_3^-

Nitrates are far less toxic than Ammonia and Nitrite. However, in concentrations of 30 - 50 p.p.m. immunosuppression and slower growth rates will be the negative results. Nitrates can also form Nitric Acid and drive the pH down



Usually, plants and water changes will remove any excess Nitrates and maintain them at acceptable levels. If unsuccessful, vegetable filters and trickle towers can be installed

Total Hardness

Also known as permanent hardness or GH, Hardness is essentially calcium and magnesium in the water (divalent cations). It can not be boiled off as is the case with temporary hardness (buffering)

Hardness is vital because **it provides minerals**

to the fish for development of bones and cartilage. Fish have been known to break their backs if they are housed in ponds with chronically low mineral levels. Bentonite/Montmorillonite clay (koi clays) are used to provide minerals and encourage appetite and growth. Calcium carbonate is a direct way to boost low GH levels

Buffering

Buffering **is essential because it provides a stable pH.** Your KH, temporary hardness or buffering level should always be kept up to 80 p.p.m or more. A reading under 80 p.p.m. needs monitoring because it is prone to a pH crash

A crash will drop your pH to about 5.5 and your nitrifying bacteria will cease functioning. Your fish will sit on the bottom highly stressed. Because these other parameters are predicated on KH, I considering it to be the most important to test for, particularly in vats and tanks which have not natural stone

Limestone for example, is a natural buffer. The Calcium in the stone, Ca, combines with Carbon Dioxide, CO_2 to form $CaCO_3$, calcium carbonate. $CaCO_3$ will bind the H^+ ions thereby slowing the rate of acidification and become bicarbonates

Salinity

Salinity or salt content, is an important parameter to monitor. Fish osmoregulate which means they need to control their internal salt level, about 0.9%. Osmosis is the movement of a solution (water) predicated on solute (salt) concentration. Therefore **water moves into the higher solute concentration - the fish (0.9%), in an attempt to equalize concentrations.** This is a passive process and the fish must then expel the water actively which requires energy



Diffusion is the process responsible for fish losing salt via urine, **as salt diffuses from higher (the fish) to lower (the water) concentrations**. When fish get sick, they often bloat up. This is because they are unable to expel the water at a fast enough rate. In the case of deep ulcers, their semi-permeable membrane is quite permeable and the fish is extremely taxed to expel the water pouring into its system. This leaves little energy left over to actually combat the disease. It is therefore advisable to salt the water to at least 0.3% to reduce the salt differential gradient between the environment and fish, resulting in less water entering the fish.

At Clarke Koi Ponds inc. we operate our tanks at 0.05 to 0.15% salinity levels which is beneficial to

the fish and will not harm any plants. Higher salt levels of **0.3% to 0.6% will need to be employed to treat parasite problems**. Salt is only removed through water changes, not evaporation. This means you need to test salt levels before adding any to ensure accurate concentration. The best way to do this is with the use of a digital salt meter (pg. 53) which is a very handy tool to derive a quick and accurate salinity reading.

Oxygen

Oxygen is an essential element required to maintain a healthy filter and koi collection. Although waterfalls and waterplants provide oxygen to the system, they will likely not provide enough oxygen to a "fish pond", particularly at night. **A proper aeration system should be installed to maintain a 80%+ saturation level of oxygen at all times**.

Of course, aeration is pivotal in the Summer months as the **higher temperatures mean water is not capable of holding as much oxygen** and the fish are breathing at a faster rate. To test your pond's oxygen level, please see our Meters on page 53...

Total Dissolved Solids

Total Dissolved Solids, or TDS is an important factor to consider. These dissolved solids include **Calcium, Magnesium, Carbonates, Nitrates, Fish wastes, salt, koi clays etc.** Although KH is vital to maintaining a proper pH, High GH (mainly dissolved Calcium and Magnesium) has proven to slow koi growth rates noticeably. Although high GH levels will push Sumi and help with whites, which can be positive, low GH levels will help lower TDS and develop better beni. So, there are pro's and con's for each approach but if your main focus is fish growth, lower GH (50-60 p.p.m.) and subsequently lower TDS levels should be your focus.

Summary

Try to provide a stable environment for your fish - avoid massive water changes unless a toxin is present.

Water testing should be done on a weekly basis and with the use of water conditioner. Test kits do not last forever - do not let them freeze and replace at least once every 2 years.



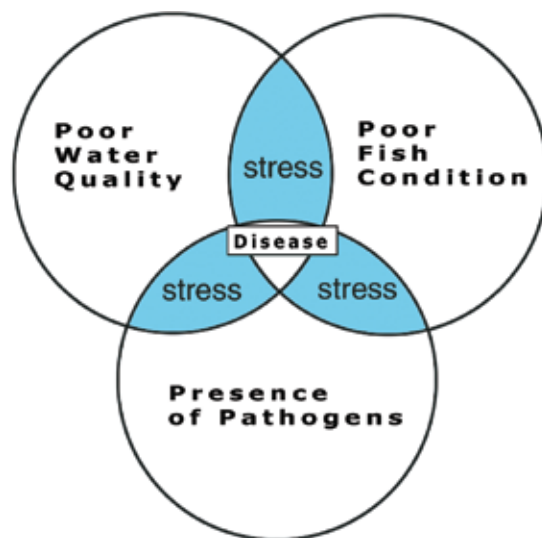
DISEASE BASICS

Fish health is a complex and very involved subject as there are a myriad of health problems your fish can encounter. In most cases, **disease problems result from poor water quality and/or the introduction of a disease causing pathogen to the system.** Equipment failure and long cold Winters are other popular catalysts to moribund states. Quarantining and sterilizing everything you add to your pond is prudent. Maintain top water quality at all times. When it comes to disease, **prevention is key.** This article will just touch on the basics of identification and treatment of diseases

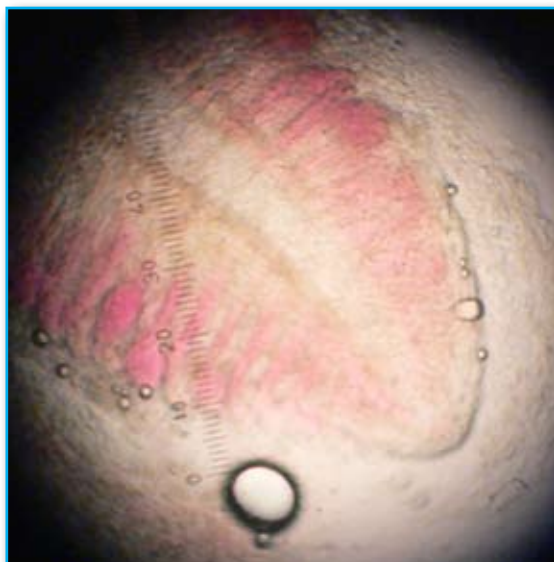
As mentioned, **maintaining good water quality is of paramount importance** as problems will eventually arise in poor water conditions. The main causes of poor water quality are inadequate filtration and overstocking. Over crowding is a pitfall most hobbyists fall into as they can't resist buying "just one more fish." Realize even if you quarantine, understock and provide excellent conditions, **problems will eventually occur - you need to be prepared**

Parasites, bacteria and viruses are the 3 main health threats to koi. When a fish takes ill, one of these will be the root cause. Fungus can also be involved, but generally as a secondary attacker. **Bacteria** are ubiquitous but with good fish health and water quality, bad bugs are usually fought off by healthy koi. **Parasites** such as anchor worm, fish lice and gill/ skin flukes can be easily be introduced with new fish and even on new plants

It is common for fish to have a few parasites on them, problems arise however, when there is an overabundance of them. Often, **bacterial infections will sprout from injuries to the skin.** Penetrations from parasites such as Flukes and Anchor Worm will become entry points for bacteria such as **Aeromonas**. Flukes and the resulting ulcers caused by pathogenic bacteria are a common 1-2 punch that can kill your fish in short order, especially small fish. It goes without saying that **bacteria are easily spread so even moving a net from one pond to another can inoculate all your ponds with the offender.** Viruses can range from the harmless (ie. carp pox) to the deadly (ie. KHV - Koi Herpes Virus). Once present in a fish, viruses are impossible to eradicate so the only course is to hope for virus dormancy or a vaccine. KHV can survive up to a month in a pond without any fish (host). Because it is so



If environmental and fish conditions are both poor, the presence of pathogens will guarantee a disease state...



Above - Gill Lamellae - under close observation **can provide information on the current health status of the fish**

Above Right - Turning a fish over on its back and sliding open the operculum will allow you to examine the gills for any discolouration and erosion [ie. nitrite browning, gill disease, pale etc.]



Testing water quality on a regular basis is a great way to prevent potential disease problems

devastating, work is being done to develop a vaccine - with some success. Mag Noy has a vaccine and things are progressing in the USA as well

If you notice a fish acting strangely or showing any physical abnormality, immediately check your water quality - ammonia, pH, nitrite, buffering, hardness, O2. This basic step is often overlooked and quite often the cause of the first signs of trouble. If the water

quality remains poor, disease is sure to follow. If the water quality tests fine however, perhaps something has been recently added to your system - a new fish or plants? The conclusion at this point is that there is a disease problem that needs treatment.

Treating the whole pond immediately or isolating the sick fish are options. The use of a microscope is essential for accurate diagnosis of the problem and well worth the investment. A quarantine tank for treatment is sometimes a better choice with only 1 - 3 sick fish, as treating **the entire pond may not be necessary and could impact on the filter system, thereby wrecking havoc with water quality.** It is also very costly to treat larger ponds with medications. Sometimes the treatment can be worse than the disease if you are not careful. Whatever your plan, act promptly. Remember, there will always be a pro's and con's to your course of action - **your savvy as a fish keeper will help direct you to take the most advantageous approach**

A water change often helps and the use of salt can be beneficial. Remember, salt can be deadly with some treatments and hinders the efficacy of others. Proform-C for example, requires a salinity content under 0.05% or you can kill your fish. **Treating with Prazi for flukes will be hampered with a strong salt content**

because of the resulting slime production and the subsequent protection this affords to the offending flukes. **Potassium Permanganate** is as close to a panacea for fish disease as you can get and is inexpensive. On the negative side, it is an indiscriminate killer and can wipe out your ponds eco system. Careful dosing also has to be followed as overdosing can kill your fish

A koi's immune system will reach its peak in water of approx. 25 Celsius (77 Fahrenheit). Therefore, heating the water to this temperature will aid recovery by making the koi stronger while expediting parasite and bacterial lifecycles. Some bacterial strains can even be eradicated if you heat the water into the 80's. Heavy aeration is also fundamental in disease treatment as often sick fish have trouble breathing. Examine the fish and if possible, **know your water volume** to ensure you dose accurately. Take your time, double

check figures. Continue to monitor and follow medicating instructions precisely

Consider salting your pond in the Autumn and/or Spring as a preventative measure. I'm not an advocate of treating unless necessary but salt is an important part of the natural fishes physiology and integral to a properly functioning osmoregulation system. **Pay special attention to your fish in the Spring,** they are weak from the Winter fast and pathogens such as cold water Chilodonella are opportunistic and can strike at this time of year.

Remember, an ounce of prevention is worth a pound of cure.

It may sound obvious, but **fish can only die once**, and if your favourite one goes (which always seems to be the case), the "should haves" and "could haves" won't bring it back. Common sense and due diligence will go a long way to prevent and correct issues that do arise

For more information on disease treatment, please refer to our book section on page 22...



This fish has a serious ulcer and will require injections. Smaller fish generally lack the constitution to survive such ordeals

JAPAN TRIP 2010

Well I was finally able to make the trek to Japan this past winter. Although many suggest the best time to go is in the Fall, I feel it is a no brainer to be able to see breeders as well as the All Japan Koi Show during the same visit. Of course seeing a harvest would be nice, but you can't have it all

Before heading to Japan, I first met up with my fellow koi companion, Darren Lucas, in New Jersey. After a very brisk stroll around in New York, we got on our plane for a 14 hour. flight bound for Narita Airport, Japan

After watching all 3 of the Bourne Identity movies, I realized we were still not quite half way there. Ouch. After landing we had a 1 hr. train ride to Tokyo, and then boarded the famed bullet train. This was very exciting as we jetted along at 186 mph. I believe it was almost 2 hours to arrive at Nagaoka City. Once we got to the hotel we realized the total travel time was in excess of 20 hours door to door and that we were out of it. We met up with our guide, Steve Gibbons out of the UK, and got a bite to eat

Of course I woke up at 3:30 in the morning the next day - thank goodness for the internet. We headed out to visit about 15 breeders in both Nagaoka and Ojiya for the following 3 days and what a whirlwind it was. I was constantly snapping photo's and there were so many koi that it was just overwhelming. I guess we visited about 15 breeders which included the big names like Torazo and Daiichi. We also visited Nishikgoi Niigata Direct, Oomo Koi Farm, Kaneko, Marusei Koi Farm, Marasada, Yagenji, Isa, Yamamatsu, Shintaro, Izumiya, Miyatora among others

What I noticed in general was massive turn-over rates of the filters and warm water. Even up to 24 celsius at Marasada. Filters comprised predominantly of oyster shells and Japanese filter mat and were tucked



under the floor boards. Stocking levels were quite high but fish health for the most part was great

We got to see Shintaro's tategoi tosa house and that was amazing. Of course he had to feed the fish, and watching them climb over each other for food never gets tired. Torazo felt like royalty, with its long history. It housed mostly larger fish, all of who had a wow fac-





tor. You could really see the quality at Torazo. Isa had some nice Gosanke of which he is known for, in particular showa. It was surreal to actually be at the greenhouses of breeders you had heard so much about but yet seemed so far removed

We got into the all 41st. All Japan Koi Show on thursday after arriving in Niigata City. Lots of snow. Although things were still being set



up, you definitely got a taste of the event. So many koi, so little time. Of course the first thing you notice is the tremendous bodies on these fish. It's really like comparing an average joe with a bodybuilder. Also, these fish had stellar patterns with tight finished sashi and kiwa and great skin. Really you saw 1 fish after another that you would love to have. Perhaps my favourite fish was a doitsu showa [on the front cover] which was just so eye catching. After 3 days of the show, we started to get a little "koied out".

The next 3 days we spent touring Japan a little bit, visiting Mt. Fuji, Hakone, Kyoto and Tokyo for various tours. It was great to also take in some of the culture which was impressive. A very respectful and polite nation of hard working people with a beautifully clean country. I would love to go back, but that will not likely occur for another few years. Of course, I feel fortunate to have made it there at all - what an experience, what an education



KOI KEEPING 101 - SEASONAL CONCERNS

SPRING

Spring is an exciting time as we look forward to warmer weather and a lot of activity in our ponds. As soon as the ice melts, **visually check to make sure all of your fish survived** the long cold spell. If there are any missing fish, they are likely decaying on the bottom of the pond - these need to be removed immediately. You should try to perform a large water change (40% if possible) as soon as weather permits. In Toronto, this is generally mid to late March. While you are at it, test the water quality as early detection of WQ issues is key - you may likely find a high pH, some ammonia and no nitrite. This is normal do to the lack of nitrification

As water temperatures start to warm there is a danger period which occurs because pathogens become active before the immune system of the koi is functioning. Additionally the fish have been weakened after going so long in harsh conditions. Both these factors increase the potential of disease. **Adding salt, feeding medicated food, monitoring water quality, taking mucous scrapes and close observation of your fish are in order.** Again, in Toronto, the months of April and May are the transition months from cold water to Summer temperatures and this is the period you need to stay on top of things. This is not the time to add new fish!

Filters can be started when the water reaches 8 - 10 celsius and is on an upward swing. Aeration should be running year round, the only difference is that Winter aeration should be at a diminished rate. **Feed your fish wheat germ based foods** once a day when the water is in the 10 - 15 range. The change to higher protein foods can be made once the water temperature is 19+ Celsius

SUMMER

Summer is the peak activity and growth period for your fish. Koi are most active in warmer water and should be fed several small meals a day. Continue to monitor your ponds water quality and this is the best time to add fish to your collection (quarantining is recommended). It is **critical to maintain WQ** (water quality) as the fish will produce more waste and require more oxygen in warmer water. Don't forget, warmer water holds less oxygen so aeration is the order of the day. Many people lose fish because they run their ponds with just a single pump. When that pump inevitably fails, overstocked ponds can run out of O2 very quickly. Of course Murphy's Law dictates this will happen on a long weekend when you are away

Fish will spawn once they have gone through the appropriate number of degree days. In Toronto, this is generally in mid June. If you do not remove the eggs, your pond must be heavily planted if the fry are to survive in any numbers. Goldfish

are notorious for consuming eggs so remove them to increase survival rates. Filter maintenance is pivotal as is water testing once a week. Remember, **correcting WQ issues before they escalate causing morbidity is key.** It's easy to spot something is wrong when a fish is lying on it's side, unfortunately the problem is very serious at that time and often could have been prevented if WQ testing protocols were followed. Consider keeping a journal of your observations and treatments

FALL

Fall is an important time for your fish. You need to prepare them for Winter by continuing to feed heavily. It is vital to do a large water change and ensure the pond is clean for Winter. Cleaning is a lot easier if you place a net over your pond as the picture right illustrates

Installing a greenhouse in early October prevents any leaves from getting into the pond and extends the growing season. This is highly advisable and easy to do and your fish will come out of Winter in much better shape. Complete greenhouse instructions are on our website

Adding some salt for Winter is a good idea, and 0.1% - 0.2% is acceptable rate (1 lb. - 2lbs. per 100 gallons). I have read recently that adding salt for the Winter is not a good idea because it lowers the freezing point. If we consider that salt water (at approx. 3.5% salinity) has a freezing point of just -1.8 Celsius, then having a salinity of 0.2% will merely lower the freezing point a fraction of a degree. Obviously no cause for concern and the fishes osmoregulation will be less taxed with some salt in the water

Remember, **fish need to be in good condition to survive the Winter.** If any of your fish were recently sick or are in poor shape at the time of pond closing then you need to Winter them indoors. Tosai (1 year old koi) should not be subjected to our harsh Winters because many don't have the constitution to survive such an ordeal. They will also lose valuable growing time if Wintered outdoors

The key factor is to realize that the fish will be going 5 months with little or no food. Logic dictates they need to be healthy. of a sizeable mass and properly conditioned during the Summer. Cease feeding when the water temperature drops below 10, this is usually in November

Please see the "Seasonal Care" page on our website for the "Winter" section (Pond Info/Seasonal Care)

AERATION SUPPLIES

Aeration is a key component of successful fishkeeping. Waterfalls and oxygenating plants may not be adequate in medium or highly stocked fish ponds. Chronic deficient O2 levels cause stress which suppresses the immune system. This generally results in a disease state. Additionally, nitrifying bacteria in your filter require oxygen rich water to effectively carry out the nitrogen cycle. The bottom line is, an air system should be installed on every pond..

AERATION 101

For peak efficiency in aeration, the total cubic feet of air per minute (cfm) from **the compressor or blower should roughly match the recommended cfm of the total number of air stones**. For example, the EPW 4 supplies about 1.6 cfm at a 4 foot depth. Therefore, it can feed 3 x 0.50 cfm air stones or 5 x 0.35 cfm air stones to this depth ($5 \times 0.35 = 1.75$). This is a general guide that is closely adhered to in highly stocked aquaculture systems - as long as the sizing is within 15%, in the typical koi pond, small bubbles should result

Tubing for a compressor or blower setup should be at least 0.75" in diameter and 1" or more for longer runs. Much of the air volume will be lost to friction with undersized piping...

EASYPRO AIR COMPRESSORS

Compressors are **great for aerating Koi ponds** and proper aeration is as important as proper filtration. The EPW 10 can pump down to 12 feet ! Replacement diaphragms available, **1 year warranty...**

	Depth	2'	4'	6'	8'	10'	12'	
EPW 2	15 watts	0.6	0.6	0.5	0.4			\$ 219.00
EPW 4	35 watts	1.8	1.6	1.3	0.9	0.6		\$ 289.00
EPW 6	45 watts	2.5	2.3	2.0	1.8	1.7	1.4	\$ 359.00
EPW 10	96 watts	5.2	5.0	4.6	4.1	3.6	3.1	\$ 399.00

Kamair Compressor Diaphragms

40L	\$ 39.00
60L, 80L DIAPHRAGM	\$ 49.00



EPW 10 compressor - perfect for use with a 7" airstone. Connect the two with 3/4" I.D. tubing - secure with 2 stainless steel ring clamps

ALUMINUM OXIDE AIRSTONES



Long lasting, medium pore diffusion, **aquacultural grade**. Black colour helps hide them from view. For 1/4" i.d. tubing...

3" x 1.5" (.35 cfm)	\$ 14.00
6" x 1.5" (.50 cfm)	\$ 19.00
7" Diameter with 3/4" nipple	\$ 33.00

VENTURIS



RTF Model

Venturis are strong plastic or PVC and 1.5 inch bore. For **flow rates up to 3,000 gph**. Excellent complement and backup to an aeration system...

RTF	\$ 33.00
PVC	\$ 15.00

DUAL AIR PUMP

This is a high powered diaphragm air pump which pumps a lot of air for its size. 6 foot power cord, dual 1/4 inch output which can run the 3 inch stones above well. **Perfect for those who require lots of aeration at an bargain price...**

Air Pump	\$ 99.00
Replacement Gasket	\$ 19.00
Gasket Kit (1 set of 2)	\$ 35.00

BATTERY POWERED AIR PUMP



Great for use during **power failures or when you have to transport fish**. Requires 2D sized batteries (not included). Comes with 18 inches of airline and an airstone...

\$ 15.00

MALE ADAPTERS



Male adapters are used to **connect airline to pipe**. .25" slip to .25" thread. Other sizes available...

\$ 1.25

WHISPER AIR PUMP

Diaphragm air pumps are suitable **for aquariums, vat or bucket aeration** as well as in the winter to discourage ice. They are designed for deep water aeration...

Whisper 40	\$ 29.00
Whisper 60 dual	\$ 49.00

DOME AERATOR



Dome Aerators are used to **increase performance of bottom drains**. Placed on top of a drain, they increase its draw. Rubber membrane, medium diffusion, 10" diameter, 1" threaded fitting...

\$ 79.00

AIR LINE

Clear vinyl tubing for transfer of air or water...

1/8"	\$.19/ft.
1/4"	\$.29/ft.
3/8"	\$.33/ft.
1/2"	\$.49/ft.
5/8"	\$.89/ft.
3/4"	\$ 1.39/ft.

AQUARIUM & VAT SUPPLIES

Newly acquired fish should be quarantined. Young fish (< 2 years) and weak fish should be over wintered indoors in large tanks or vats. For larger volumes, vats are more economical than glass tanks (page 45). Koi of 4 - 5" require at least 10 gallons of water per fish. Remember, a mature system with good filtration needs to be in place to avoid new tank syndrome and ensure success...

FLUVAL POWER FILTERS



Four models to choose from. Great for vats and tanks. Complete with 3 inserts - carbon, biomax and foam. Other inserts available include peat, ammonia remover (zeolite) and pre-filter rings...

Fluval 104	up to 25 gallons	7 watts	\$ 125.00
Fluval 204	up to 40 gallons	7 watts	\$ 148.00
Fluval 304	up to 70 gallons	12 watts	\$ 189.00
Fluval 404	up to 100 gallons	22 watts	\$ 259.00

POWERHEADS



Both models come with an **air filter and adjustable flow control**. Great venturi action for both aeration and providing water currents to exercise fish. Output can be directed with enclosed diverter. C.S.A. approved. Models 402,802 have reverse flow capability...

Powerhead 201	110 g.p.h.	12 watts	\$ 35.00
Powerhead 301	142 g.p.h.	20 watts	\$ 42.00
Powerhead 402	250 g.p.h.	12 watts	\$ 55.00
Powerhead 802	350 g.p.h.	20 watts	\$ 65.00
Powerhead 902	978 g.p.h.	80 watts	\$ 109.00

SUBMERSIBLE HEATERS

Completely submersible with temperature control setting. 2 suction cups for easy attachment to aquarium side. 10.5 - 13.5 inches in length. +/- .25 Celsius accuracy...

300 watts	100 gallons	\$ 27.00
Rena 300 watt (unbreakable)		\$ 59.00



BOOKS & MAGAZINES

Expanding your knowledge through reading is a great way to enable yourself to better care for your koi. Below are several books/magazines Clarke Koi considers beneficial reading for successful koi keeping. Other titles not listed are available...

KOI POSTER - 3 SET

Brush up on your koi identification with this beautiful 3 poster set featuring the multitude of koi varieties. Fully laminated, measuring 2 x 4 feet each...

\$ 165.00

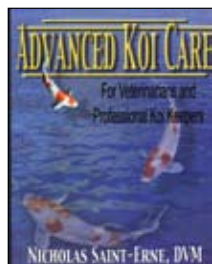
THE KOI DOCTOR



This hard cover text features chapters on water quality, filtration, toxins, koi anatomy and of course fish disease. 175 pages in length written by veterinarian and koi keeper Maarten Lammens...

\$ 95.00

ADVANCED KOI CARE



This soft cover **200 page reference** has just recently been released and contains **up to date information on disease states and their treatments** in the koi hobby. Written by a Veterinarian who is also an avid koi hobbyist, this book offers a brief introduction to koi and then gets right into chapters on infectious diseases, parasitic diseases and environmental management to name a few...

\$ 89.00

KOI HEALTH & DISEASE - 3 RD. EDITION



An **excellent manual focusing entirely on koi and goldfish health**, diseases and their treatments. This new issue has had 90 pages removed and 100 pages added. Soft cover with 200 pages of advanced techniques empowering you to treat your koi ailments successfully. By well respected koi veterinarian, Dr. Erik Johnson...

\$ 72.00

TETRA ENCYCLOPEDIA OF KOI



This excellent book from TetraPress provides **practical information on ponds and pond construction**. Perfect for the beginner as well as the experienced hobbyist. Full colour photographs and diagrams, over 200 pages, hardcover...

\$ 57.00



AKCA Books

These mini guides are **packed with information**. They include: Guide to Koi Health, Guide to Koi Nutrition, Guide to Pond Construction and Guide to Filters & Pre-filters. Soft cover, approximately 50 pages each...

Koi Health	\$ 10.00
Koi Nutrition	\$ 7.00
Pond Construction	\$ 10.00
Filters & Pre-filters	\$ 21.00
Basic Koi Pond, Filter and Water Quality	\$ 42.00

KOI USA & KOI NATIONS MAGAZINES



Koi USA is a **world class magazine published** by the Affiliated Koi Clubs of America. It features articles on the whole gamut of the hobby with an emphasis on koi. Full colour, over 100 pages, published 6 times per year.

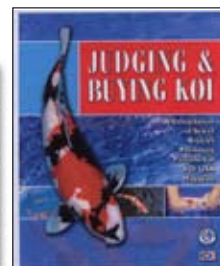
We also carry Koi Nations which is in its second year and proving to be a great magazine. We usually have quite a few back issues available...

1 magazine	\$ 8.00
3 magazines	\$ 22.00

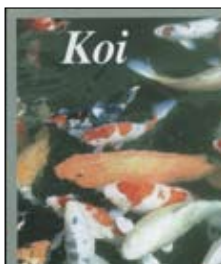
AKCA - JUDGING AND BUYING KOI

This all color, 200 page book is a compilation of KOI USA articles on Judging Koi, **articles on buying koi and how koi change** over time . It also contains the Tategoi series by Joel Burkard. Probably our best seller...

\$ 42.00



KOI - A COMPLETE PET OWNERS MANUAL



For a small soft covered book, this publication is packed with lots of information. At over 100 pages it contains many photos and diagrams. Chapters cover koi varieties, pond installation, filtration, nutrition, disease, breeding and more. Highly recommended for the novice and intermediate koi keeper. A great value for the price...

\$ 13.00

OTHER BOOKS

Plants for Watergardens - by Helen Nash, 222 pages, soft cover	\$ 33.00
The Pond Doctor - by Helen Nash, 150 pages, soft cover	\$ 28.00
Kukugyo - 2 volume set by Kodama on Koi appreciation. CD, Hard cover	\$ 250.00
Koi Varieties Poster - 19 x 27 inches, every major class	\$ 10.00
Mini-Encyclopedia - excellent pocket size reference packed with info	\$ 22.00

FILTRATION EQUIPMENT

Filtration is the key to a successful pond. It is the foundation of your system and without a good system, water quality, clarity and fish will suffer. I highly recommend gravity fed setups as the keystone to your filtration approach. It is important to realize that no filter is a panacea despite some claims.

Different systems may need to be installed to work in concert to deliver the desirable end result. For example, we stock all the plumbing parts necessary to create your own rotating media filter or trickle tower - these are excellent cost effective filters. We also sell bead filters which are great for removing small particulate...

CUSTOM BUILT FILTRATION SYSTEMS

Clarke Koi specializes in filtration systems. A basic system would include a gravity fed 3 chamber unit. The first chamber is for settlement, the next a biological chamber and the third is for polishing. Custom systems come complete with screening, biomedia and reticulated foam...

3 chamber units starting at \$ 1,500.00



POND SIEVE

Very solid construction [you can stand on it] with a **stainless steel** sieve. 3" bypass preventing overflow potential is sieve gets clogged. Easy to clean and set up..

\$ 589.00



AQUADYNE BEAD FILTERS

Aquadyne bead filters feature **air compressor cleaning, full bypass [for medicating]**, simple internals for disassembly, small footprint and an easy backwash procedure. We have a 0.6B unit working well on our main show tank at our shop. We only sell units with the air cleaning compressor because it is a vital component for proper cleaning...

0.6B cubic foot	1,800 gallon ponds	\$ 1,195.00
1.1B cubic foot	3,000 gallon ponds	\$ 1,495.00
2.2B cubic foot	7,500 gallon ponds	\$ 1,795.00
2.2 BHE [2" ports]	7,500 gallon ponds	\$ 2,395.00
4.4B cubic foot	14,000 gallon ponds	\$ 3,059.00

FILTER WOOL & RETICULATED FOAM

Filter wool is ideal for use as pump screening to prevent pump clogs and flow rate slow downs. Reticulated foam is excellent for bio and water polishing. Wool is rigid and coarse material, easy to custom cut with an xacto knife. Reticulated foam is **die cut to fit 55 gallon drums** for custom built filters...

1.25" thick wool	\$ 4.75 / square foot
2" thick wool	\$ 6.50 / square foot
24" diameter, 2" thick, 20 pore	\$ 79.00
Reticulated Foam Sheets	\$ 9.00 square foot



VORTEX TANKS

Excellent solids settling - these are serious units. 4 inch ports for easy rubber coupler connections, 2" purge on smaller units, 3" on larger. Heavy duty PVC construction. The 48" is approx 300 gallons, the 40" 200 gallons, 30" 90 gallons...

21"W x 30 [up to 1.8K flow]	\$ 499.00
Lid	\$ 49.00
30"W x 36"D [up to 2.5K flow]	\$ 609.00
Lid	\$ 99.00
40"W x 40"D [up to 3.5K flow]	\$ 995.00
Lid	\$ 199.00
48"W x 48"D [up to 5K flow]	\$ 1,295.00
Lid	\$ 249.00



MATALA FILTER MEDIA

Matala is an advanced filter media for today's serious pond enthusiast. The open, highly aerobic 3 dimensional structure **promotes healthy water conditions** and ease of cleaning. Custom cut to any size, provides an even flow through of water with no channeling. Comes in **4 different densities**, **sheets are 39 1/2 x 48 inches [13 square feet]**. **Also sold by the square foot @ approx. \$10...**

Black	62 sq.ft. SA per cu.ft. Sheet	\$ 92.00
Green	96 sq.ft. SA per cu.ft. Sheet	\$ 99.00
Blue	124 sq.ft. SA per cu.ft. Sheet	\$ 102.00
Grey	171 sq.ft. SA per cu.ft. Sheet	\$ 115.00

Per square foot: \$ 9.50, \$ 10.00, \$ 12.00, \$ 14.00



K1 KALDNES MEDIA



Kaldnes has emerged in the last few years as one of the **best media for rotating media filters**. Originally developed for wastewater treatment, it is perfectly suited for pond filtration systems as koi produce a lot of wastes. 800 square metres of surface area per cubic metre...

1 Cubic Foot	\$ 65.00
2 Cubic Feet	\$ 125.00

BIO BALLS



Bio balls provide a **high surface area and do not clog or channel like some other media**. Great for upflow or trickle tower filter systems. 1 cubic foot of 1.5 inch bio-balls supports approx. 35 lbs. of koi...

Gallon	\$ 15.00
Cubic foot	\$ 79.00

OTHER FILTRATION SUPPLIES

Black Knight Filter brushes	12" L x 4" D	\$ 12.00
	16" L x 4" D	\$ 14.00
	24" L x 4" D	\$ 16.00
Japanese Matting- high bio capacity, square foot		\$ 11.00
Hydro sponge filters, 125 gallons, air driven		\$ 33.00

Ultimate Bio Media - 400-500 square feet surface area per cubic foot, use in RMF's

1 cubic foot	\$ 85.00
2 cubic foot	\$ 159.00

FOUNTAINS

Fountains provide an ambiance with both their visual beauty and sound. From a water quality perspective, they help aerate and recirculate the pond...

TABLE TOP FOUNTAINS

Several designs to choose from. **Come complete with pump, rock - everything you need.** Find a location, 5 minutes to assemble and simply plug in. 1 year warranty...

Prices starting at \$ 28.00



ORNAMENTAL SPITTERS



These spitters rest by the side of your pond on any flat surface. **A small pump, 200 gallons or less, is required to operate these units** and the water comes out of their mouths

Frogger	\$ 19.00
Fish	\$ 19.00



NURSERY PRO FOUNTAIN HEADS

Pumps come **complete with adjustable fountain head**, filter and flow bypass to control fountain size. Black in colour...

Diverter/Stem	to Attach head	\$ 26.00
	Bell, Geyser, 3 Tier	\$ 18.00

BARREL POND WITH SPITTER KIT

Natural wood style **PVC 1/2 barrel pond complete with pump**, tubing and spitter. Just add fish and plants...

\$ 139.00

SOLAR POWERED JAPANESE LANTERNS

Pricing and details not available at the time of printing but these lights would look great around the garden and pond and no wires...



call for availability and pricing

KOI & GOLDFISH

Whether you're interested in nice quality Japanese koi or more affordable Malaysian fish, stop by the shop or visit the website and view the selection of fish we have for sale. Koi 3" to 15" are always in stock. Fancy and Common Goldfish, Shubunkins, Sarassas etc. are also available...

SHIPPING KOI

We will ship the box of fish you select to an airport near you. **Our charge is \$ 75.00 for the first box** for packing/delivery to the airport, each additional box is \$ 15.00. Air Canada Cargo to the East coast is approximately \$ 130.00, the West coast about \$ 155.00

If you are within **8-10 hours of driving distance** from Toronto, we can **ship your fish by bus**. This is substantially cheaper than air. Please contact us for details...

JAPANESE KOI - THE ULTIMATE



The Japanese breed the best koi **due to their refined bloodlines and skill at culling fry**. To breed fish with good conformation, vivid colour and nice balanced patterns is a difficult and expensive process. This accounts for the price premium over domestically bred fish. Check clarkekoi.com [Koi for Sale page] for pictures of our latest koi stock

4" - 6"	\$ 39.00+
6" - 7"	\$ 79.00+
10" - 12"	\$ 225.00+

Buy 2 fish, receive a 5% discount on the total. 3 fish, 10% off, 5 or more fish is a 15% discount...



POND QUALITY KOI

Malaysian koi are **excellent for beginning hobbyists** and for those on a budget. Also a good choice for stocking larger or natural ponds where predation could occur. **These fish are colorful** and an attractive option to more expensive Japanese Koi. We often get larger fish in the 18" range for under \$100 each...

4"-6"	\$ 14.00/ea. 2 for \$ 25.00
4"-6" choice grade	\$ 25.00/ea. 2 for \$ 45.00
8"+	\$ 55.00+ each
Butterfly 5"	\$ 19.00/ea. 2 for \$ 35.00



GOLDFISH - COMMONS, COMETS, SARASA, SHUBUNKINS



Everyone is familiar with goldfish and for good reason. Hardy and brilliantly coloured, goldfish are the **best fish to keep if you are a beginning hobbyist**. Commons, Comets, Sarassa (red and white) and Shubunkins (blue with mottled colors) goldfish are all available from Clarke Koi...

starting at \$ 1.00

FANCY GOLDFISH

Many **Fancy Goldfish** are **hardy enough to compete in the garden pond**. In this setting they will grow quite large. Red Capped Orandas, Lionheads, Red and White Fantails and Black Moors are just some of the fancy goldfish available...

starting at \$ 5.00



KOI BREEDING SUPPLIES

BLACK KNIGHT SPAWNING MOPS



Measuring 59 inches in length and 5.5 inches in width, these spawning mops are soft and **excellent for capturing eggs**. Simply remove after spawning to a separate tank to raise your fry...

1 brush	\$ 55.00
Box of 2 brushes	\$ 95.00

EGG LAYERS LIQUIFRY

By Interpet, Liquifry No 1 has been **formulated with tiny food particles for small egg laying fry**. It will also stimulate infusoria (microscopic natural organisms), which baby fish will eat. For best results start feeding with Liquifry No1 soon after the eggs are laid...

25 mls.	\$ 7.00
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KOI FOOD

Clarke Koi recommends feeding your fish a balanced diet. This should include **a staple pellet from at least two different feed manufacturers** as well as some fresh vegetables. Fruits, worms and other insects are also readily taken

Please do not feed your koi trout chow, table scraps etc. as these do not supply your fish with the required nutrients. Clarke Koi never overstocks fish food to ensure we carry only fresh product...

DAINICHI Koi FOOD

Dainichi Koi Food is an elite koi food made with human grade ingredients. **There are 4 formulations.** "Premium" is a staple food with Spirulina added to intensify colour. "All Season" can be fed year round but is particularly effective in the cooler Spring and Fall months. "Colour Intensifier" should be fed in warmer water conditions and contains pure cultured spirulina for better colour. "Growth Plus" is great for summer feeding to maximize size gains



We stock mini and medium sized pellets, large pellet size is available by special order. New last year was a **mixed pellet size bag featuring 30% mini and 70% medium sized pellets - all in the same bag.** This is great for those with fish under 5 inches and over 10...

<http://www.dainichi.com>

Premium

A select **staple pellet** that also provides a **colour intensifying effect.** Rich in shrimp, krill, spirulina and vitamins C, E. 42% protein...

1.1 lbs.	\$ 24.00
5.5 lbs.	\$ 82.00
11 lbs.	\$ 145.00
22 lbs.	\$ 269.00



Colour Intensifier

Highly concentrated with **pure spirulina** to promote optimum colour in your koi in as little as 4 - 6 weeks. Warm water feeding...

1.1 lbs.	\$ 25.00
5.5 lbs.	\$ 97.00

All Season

Suitable for **feeding in Spring and Autumn.** Pellets have a mineral coating that help with healing...

1.1 lbs.	\$ 19.00
5.5 lbs.	\$ 65.00
11 lbs.	\$ 112.00
22 lbs.	\$ 205.00

Growth Plus

With a **high protein concentration(44%)**, this food should be fed during the heat of Summer. Main ingredients include fish meal, wheat flour, krill, shrimp, wheat germ, soybean meal, calcium montmorillonite clay with a vitamin mix...

1.1 lbs.	\$ 22.00
5.5 lbs.	\$ 78.00
11 lbs.	\$ 135.00
22 lbs.	\$ 245.00

HIKARI KOI FOOD

Kamihata, maker of Hikari brand fish food, calls upon **nearly ten decades of ornamental fish-breeding experience** to bring you the food fish prefer. Hikari fish food is by far the most popular brand in Japan, a nation known for its fine ornamental fish. Sakai-Hikari has been fed to many of the recent All Japan Grand Champions. We stock Sakai-Hikari, for other formulations (excel, gold, wheatgerm, staple) please allow 1-2 weeks...

Saki-Hikari Colour	4.4 lb.	\$ 79.00
	33 lb.	\$ 399.00
Saki-Hikari Growth	4.4 lb.	\$ 77.00
	33 lb.	\$ 365.00



TETRA KOI FOOD

Tetra offers **4 different formulas** of well respected koi foods. The extruded floating sticks come in one size only suitable for 4-5 inches and larger. **"Food sticks"** are a general pond fish feed, **"Koi Sticks"** are a koi staple diet with added colour enhancers. The **"Growth Sticks"** will increase size rapidly if fed in the summer months and **"Wheat Germ Sticks"** are for Spring and Fall feeding because they are easily digested...

www.tetra-fish.com



Tetra Koi Vibrance

1 litres - 5 oz.	\$ 10.00
4 litres - 1.4 lbs.	\$ 31.00
7 litres - 2.5 lbs.	\$ 39.00
10 litres - 3 lbs. (bucket)	\$ 50.00
15 litres - 5.25 lbs.	\$ 65.00
46 litres - 16.25 lbs.	\$ 180.00

Tetra Growth Sticks

1 litres - 7 ozs.	\$ 14.00
4 litres - 2.75 lbs.	\$ 42.00
7 litres - 5 lbs.	\$ 68.00

Tetra Wheat Germ Sticks

1 litres - 7 oz.	\$ 13.00
4 litres - 1.7 lbs.	\$ 31.00
7 litres - 3 lbs.	\$ 59.00

Tetra Food Sticks

1 litre - 3.5 oz.	\$ 9.00
4 litres - 1 lbs.	\$ 25.00
15 litres - 3.75 lbs.	\$ 58.00

ZIEGLER KOI FOODS

For over 50 years Ziegler bros. has been developing formulations for the aquaculture industry

Koi Grower is a floating pelleted food with 42% protein and 6% fat containing fish meal, spirulina and shrimp meal. This is ideal for warm water feeding. Comes in a 3 mm [small] pellet only - 4" + fish

5 lb. bag	\$ 28.00
33 lb. bag	\$ 125.00

Koi Fancier features 30% protein and 5% fat also with fish meal, spirulina and shrimp meal. This is a good staple diet food. Comes in a 5 mm [large] pellet only - 7"+ fish

5 lb. bag	\$ 26.00
33 lb. bag	\$ 119.00

Pond Fancier is 28% protein with wheat flour, wheat middlings and wheat germ, suitable for cool weather Spring and Fall feeding

5 lb. bag	\$ 21.00
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FREEZE DRIED PLANKTON

San Francisco Brand ocean plankton provides plenty of protein as well as **a colour enhancing effect**. 64 % protein content, 8% fat, suitable for warm water feeding...

16 oz.	\$ 76.00
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TETRA GOLDFISH FLAKES

Tetrafin Goldfish flakes provide a **well balanced diet for both goldfish and koi**. Great for feeding fry and smaller fish. 42% protein, 8% fat...

2.2 oz.	\$ 8.00
7 oz.	\$ 19.00
7.2 lbs.	\$ 99.00

ZOE VITAMIN SUPPLEMENT

Kent Marines "Zoe" is **a liquid vitamin** that can be sprinkled on pellets to provide a nutrient boost...

8 oz.	\$ 17.00
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INOCHI PRO KOI FOOD

Inochi Pro koi food line [formerly Toyoma] are balanced all-purpose maintenance, color and growth foods which can be used alone or in conjunction with other formulas. Robust blends of krill, spirulina and white fish meal noticeably enhances the luster, sheen and white of your Koi. The addition of montmorillonite clay provides an unmatched source of minerals [including calcium] for enhanced growth and development. The main difference between Inochi and the Dainichi line is that the Dainichi foods have a vitamin coat sprayed on the food after processing

"All Season" is formulated with easily assimilated proteins, and is well suited for feeding in colder months when your fishes metabolism is less active.

"Premium Pro" features 42% protein and is suited for warmer water feeding

4 lb. All Season Pro

\$ 38.00

4 lb. Premium Pro

\$ 42.00



OTHER FOODS

Tubifex Worms

Freeze dried, cubed, 10 grams, **52% protein**, large koi can take an entire cube. Great for fry...

10 grams

\$ 3.00

Blood Worms

Freeze dried, 250 ml, bloodworms are the larvae of midges which are similar to mosquito, **58% protein - great for fry...**

250 ml

\$ 8.00

Jumbo Shrimp

Shell included, **60% protein**, 100 grams, helps develop stronger orange and red in koi...

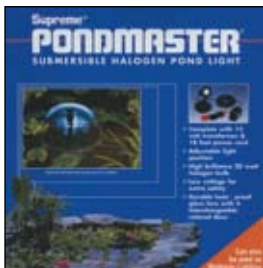
100 grams

\$ 29.00

LIGHTS & FOGGERS

Bring your pond to life at night with underwater pond lighting. It's a great way to appreciate your oasis on warm summer evenings. All lights are low voltage and require a transformer. Just add a dusk timer and enjoy...

SUPREME PONDMASTER LIGHT KIT



This 20 watt light kit **comes complete with everything you need**. 20 watt bulb, adjustable light path and 4 coloured lenses. 12 volt transformer included with an 18 foot cord...

Light Kit & Transformer

\$ 95.00

EASYPRO STAINLESS STEEL LIGHT

This is an extremely solid stainless steel underwater light. Comes with a 35 watt bulb and 30 foot cord. Can be used out of water as well. Needs to be connected to either the 100 or 150 watt transformer. The transformer has a photo eye which turns the light on automatically as dusk and can be set to run 4, 6, or 8 hours before auto shutoff...

35 watt light	\$ 135.00
100 Watt Transformer (2 lights)	\$ 129.00
150 Watt Transformer (4 lights)	\$ 145.00



LAGUNA POWER GLO MINI LIGHTS

Everything you need in this kit to quickly and easily set up your underwater pond lighting. Automatically turns on and off, 3 light kit comes complete with coloured lenses and transformer. A great price..

3 Light Kit w/Transformer \$ 72.00

New LED lights can be used in or out of the water, with longer lasting more energy efficient bulbs. Auto on/off sensor, 3 light kit w/ 12 LEDs in each light

3 LED Kit \$ 119.00



FOGGERS

Foggers add an attractive mist just like real fog coming off of the water. Require a floater, fogging discs need to be replaced dependant on use. Foggers require floats..

H3 Standard Fogger (small)	\$ 77.00
H5 Fogger with 18 LED Lights	\$ 119.00
H3 Float	\$ 6.50
H5 Float	\$ 8.50
Replacement Fogging Discs	\$ 4.50 - 5.50

LINERS & UNDERLAYMENT

Only a liner of high quality should be considered for your pond membrane. Avoid PVC material. 45 mil EPDM liners offer excellent durability and longevity at a reasonable price. EPDM will last at least 20 years and patches easily if damaged...

POND MEMBRANES

45 mil E.P.D.M.	\$ 0.81 square foot
45 mil E.P.D.M. - 300 square feet or more	\$ 0.77
45 mil E.P.D.M. - trimmings & lightly used	\$ 0.60
60 mil E.P.D.M. - [special order]	\$ 1.25

E.P.D.M. 45 mil liner is very strong and flexible. As it comes in rolls, one dimension of cut product (length or width) must be divisible by "5". ie. if you need a 16 x 18 liner, you must purchase a 16 x 20 liner. We stock 10, 15 and 20 foot wide rolls. Larger sizes (21 x 21+) may not always be in stock, please call ahead and allow 2-3 days...



Geosynthetic Underlayment 4 oz.	\$ 0.27 square foot
300+ square feet	\$ 0.23 square foot
Super Thick Geo Underlay - 10 oz.	\$ 0.35 square foot
300+ square feet	\$ 0.32 square foot

Geosynthetic Underlayment should be used underneath the liner and between stone and liner to prevent it from getting punctured by underlying sharp rocks and roots...

EPDM LINER TAPE



Batten tape is 6" wide and **single sided uncured**. We also carry double sided 3" inch tape. Uncured 6" is stretchable and perfect for folds and bonding liners. **Double sided** is utilized to bond 2 liners together. For effective results, liner must be clean, dry and liner **tape glue must be used**. See our website: Pond Info/How To for complete instructions on taping...

Single Sided 6"	\$ 4.75/ft.
Double Sided Slice Tape	\$ 3.00/ft.
Lap Sealant 11 oz	\$ 19.00

LINER TAPE GLUE

Liner tape glue is **required for proper bonding of liner tape**. Thoroughly clean the area, it needs to be dry then apply the glue with a brush...

Seam glue - 2 oz	\$ 7.00
Seam glue - 16 oz tin	\$ 39.00

LIQUID LINER

Quick drying and easy to apply, liquid rubber bonds to stone, wood, concrete etc. Apply in thin coats. **Harmless to fish** (potable water certification). 60+ square foot coverage/gal...

1 gallon	\$ 49.00
5 gallon	\$ 185.00

WATERFALL FOAM

Black expandable foam which readily allows you to bond stone to liner and stone to stone. **Essential in waterfalls to keep flow above the stones**. Once dried, excess material is easily trimmed back...

12 oz. can	\$ 20.00
Foam Gun	\$ 99.00
31 oz. Foam [gun use only]	\$ 49.00
Gun Cleaner 12 oz	\$ 22.00

MEDICATIONS & EQUIPMENT

The use of medications for prevention and treatment of ailments has to be undertaken with extreme caution. The old adage, an ounce of prevention is better than a pound of cure is so true in this hobby. Please refer to page 10, "Disease Basics" for some general pointers on what to do if your fish appear to be in difficulty. We sell some of the best medications on the market as well as the essential tools required to deal with problems effectively..

UNICO MICROSCOPES

Two models are available. The **M250 is binocular and offers a mechanical stage.** 4x, 10x, 40x and 100x objective lenses which allow for 40x, 100x, 400x and 1000x magnifications. Units operate on 3 AA batteries for **cordless freedom** but also have an AC adapter. The **M220** is also battery or electrically powered. Monocular and capable of 40x, 100x and 400x magnifications. **Optional mechanical stage for the M220** is a nice upgrade...

Entry Level Microscope	\$ 139.00
M220	\$ 289.00
M250	\$ 699.00
M220 Mechanical stage option	\$ 89.00
M Series AC Adapter	\$ 22.00
Slides - 72 pk	\$ 7.00
Cover slips - 1 oz. (approx. 100)	\$ 4.50
Hard Case with 72 slides and slips	\$ 38.00



GRAM SCALES



Nice scale at a great price. **Perfect for weighing out meds - remember, teaspoons don't allow for compaction.** For the most accurate measurements a scale is required. Tare feature, 0.1 accuracy. Comes with calibration weight, small and sturdy in pocket sized design...

350 gram capacity

\$ 85.00

NECROPSY TOOLS

These are quality instruments constructed of stainless steel. Great for necropsy work on fish and if tissue samples are required...

3 Types of Tweezers	\$ 2.50 ea.
3 Types of Cutting Scissors	\$ 4.50 ea.



TRICIDE - NEO

Tricide-Neo is a patented dip to aid in the **treatment of topical bacterial infections such as ulcer disease, fin rot, tail rot and mouth rot.** Tricide-Neo breaks the bacteria's resistant outer layer to allow the antibiotic to stop the bacteria. Fish can be dipped every other day for one week. The fish are dipped into the bath for up to 5 minutes, we recommend 2 minutes for fish less than 6 inches in size...

22 gram (1 gallon mixture)	\$ 35.00
110 gram (5 gallon mixture)	\$ 85.00

PROFORM-C

This Malachite Green/Formalin treatment is **effective against protozoa parasites** and fungus. This is the safest Malachite/ Formalin treatment on the market...

1 quart [treats 3,200 gal 3x]	\$ 30.00
1 gallon [treats 12.8k gal 3x]	\$ 85.00

PROFORM-LA

Effective against **fish lice and anchor worms.** 3 applications, 1 week apart are required and it can be used in any water temperature. Much safer than Dimilin...

Pint [treats 5,000 gal 3x]	\$ 27.00
Quart [treats 10,000 gal 3x]	\$ 49.00

CHLORAMINE - T

Chloramine-T is a excellent choice for the control and **elimination of bacterial gill disease,** body fungi and bacterial infections. I. Safe when dosed correctly, dosing based on water hardness. Bio-filtration must be bypassed during dosing...

1 lb.	\$ 24.00
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PRAZI Pond PLUS

Prazipond Plus is more effective than the original. The most gentle and safe treatment for flukes as well as killing any internal parasites and worms. 10 grams treats 1,000 gallons...

10 gram	\$ 29.00
50 gram	\$ 115.00
100 gram	\$ 179.00

OTHER ITEMS

Salt - uniodized, no YPS, food grade	44 lbs.	\$ 8.50
Melafix - treatment for wounds, harmless to bio-filter, 8 oz treats 480 gallons	16 oz.	\$ 14.00
	64 oz.	\$ 21.00
		\$ 65.00
Pimafix - natural formula for treatment of fungus. 16oz treats 2400 gallons	64 oz.	\$ 24.00
		\$ 68.00
Surgical Gloves - latex, recommended when handling fish or chemicals	10 pairs	\$ 1.00
	100 pcs.	\$ 8.00
Debride DeWorming Food - feed annually for 10 days to kill internal parasites...	2 lbs.	\$ 22.00
	5 lbs.	\$ 43.00
Ammonium Chloride - use to seed filter systems without fish, 500 gram		\$ 39.00
Povidone-Iodine Ointment - First Aid Antiseptic ointment		\$ 17.00

KOIZYME



Koizyme is a fish safe liquid **probiotic treatment which helps prevent ulcers and lesions from developing on your koi**. This proven bacterial culture starves Aeromonas and Pseudomonas (the 2 main types of problem bacteria for Koi) to death by out competing them for food (competitive exclusion). With ongoing dosing of Koizyme, Aeromonas populations are kept at negligible levels. Dosing rates indicated below are for maintenance mode, dosing needs to be doubled in startup mode. See the website **support and manuals** page for more details on dosing...

16 ozs.	48,000 gal	\$ 30.00
32 ozs.	98,000 gal	\$ 60.00
1 Gallon	384,000 gal	\$ 189.00

www.koizyme.com

DEBRIDE MEDICATED FOOD

Debride RX Medicated Koi Food is a medicated food that fish will actually eat. This is a **sinking triple antibiotic food** for effective treatment against ulcers. Recommended to be used in conjunction with topical treatments of debride ointment. Needs to be fed for 2 weeks minimum...

2 lbs.	\$ 35.00
5 lbs.	\$ 62.00



DEBRIDE MEDICATED OINTMENT



This medicated ointment promotes rapid and complete **healing of ulcers**. Easily applied to ulcers, wounds, mouth rot etc. Sold in 1/2 and 1 gram sizes. Should be used in conjunction with debride medicated food [above]...

20 applications	[12 gram]	\$ 33.00
45 applications	[28 grams / 1 oz.]	\$ 55.00

BIFURAN

This powdered **bactericidal treatment** is suited for gram negative bacteria which include ucler causing Aeromonas and Pseudomonas. **Does not kill nitrifiers in your filter like Potassium Permanganate...**

100 gram	\$ 19.00
500 gram	\$ 79.00
2.2 kg	\$ 129.00



NETS & NETTING

It is imperative to use the proper nets to be able to quickly and easily capture fish without stressing or injuring them. Every koi keeper should have a standard capture net as well as a sock net in their pond equipment shed. Seine nets are pivotal in corralling fish in larger ponds. Vats, koi bowls or tubs (page 49) should be utilized when you need to examine fish closely (a clear bag is also great for examining fish)...

PROFESSIONAL KOI NETS



These shallow nets are **specifically designed to capture koi** and guide them into a bowl or other suitable receptacle. Netting is meshed right into the frame. Choose a suitable net diameter and combine that with the length of handle desired...

Nets

20" diameter	\$ 85.00
30" diameter	\$ 105.00
32" diameter	\$ 119.00

Aluminum Handles

6' Solid	\$ 45.00
4-8' telescoping	\$ 59.00
6-12' telescoping	\$ 79.00

KOI SOCK NETS

Sock nets are **required in order to safely lift fish out of the water**. The fine soft mesh does not damage fins and "wet socks" allow the transport of water with the fish..

11" diameter, 42" sock	\$ 88.00
15" diameter, 48" sock	\$ 115.00
11.5" Wet Sock, 54" sock	\$ 145.00

SEINE NETS

A seine net is **used to corral fish in larger ponds**. Simply drag the net across the pond to a shallow corner and then use a hand net and tub to catch the confined fish. 6' x 15' in size, 1/4" mesh with floats and sinker weights. Netting is white so fish avoid it...

6 x 15 feet, 1/2 inch	\$ 155.00
6 x 20 feet, 1/2 inch	\$ 189.00

UTILITY NETTING

This nylon net is strong and useful for **covering tanks**, making fish cages etc. Large koi can break plastic net...

3/8" black, widths of 10 or 20'	\$ 0.25/square foot
1/4" net (white)	\$ 1.33/square foot
3/4" net	\$.90/square foot
10' x 10' x 1/4" black	\$ 95.00
10' x 20' x 1/4" black	\$ 139.00



FLOATING FISH CAGES

Perfect for **isolating fish** within a pond for easy treatment. Use for fish you need to keep a close eye on, inject etc. **Floating, with lid**, .25" mesh, PVC top frame...

2 x 3 x 2 deep	\$ 139.00
3 x 3 x 2 deep	\$ 159.00

OTHER NETS

Net 6" x 10" w/36" pole	\$ 12.00
Net 18" triangular w/5' pole	\$ 25.00
Net 20" circular w/telescoping pole 5' to 9'	\$ 32.00

PLANTS - WATERLILIES

Waterlilies are the classic pond plant for good reason. Lilies have beautiful flowers which last all Summer and they are extremely hardy and easy to care for. Lilies like to be fertilized once a month during the Spring and Summer to maximize blooms

Waterlilies are usually capable of surviving the attention of big koi. Plant in large containers with Fafard Waterplant Soil (see below) and cover with medium to large river rock to stop the tubers from becoming uprooted by foraging fish. You can consider wrapping the soil and plant with geosynthetic to reduce potential turbidity. Do not let tubers freeze. Please note, plant pricing and availability are

WATERLILIES

Hardy

Hardy to zone 3
8 inch Pots

\$ 30.00 each

Tropical

8 inch Pots

Feature Large evening blooms with fragrant flowers

\$ 38.00 each



Some Varieties Available

Hollandia - pink, large double blooms, medium to large spread. Marliac White - perennial favorite with fragrant white blooms produced continuously. Indiana - small lily with flowers that change from peach to orange red, small spread

WATERLILY FERTILIZER

Water lilies require regular monthly fertilizing if they are to maximize their blooms. Other potted plants benefit from regular fertilization as well...

Tetra 25 tabs	\$ 10.00
Tetra 75 tabs	\$ 26.00
Pond Care 25	\$ 9.00
Pond Care 60	\$ 19.00

AZOO PLANT NUTRIENT

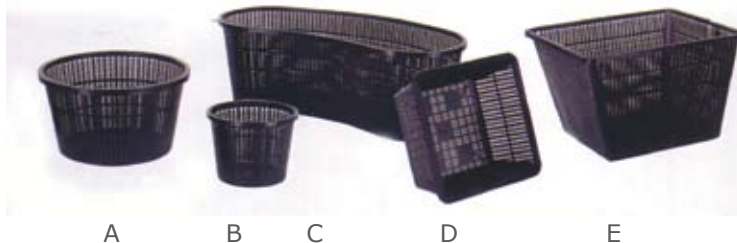
AZOO Plant Nutrient contains a whole range of organic and inorganic nutrients in the right proportions for plant growth. It is active in the water column for at least 7 days...

500ml. 2000 gal \$ 22.00

MESH PLANTING BASKETS

HDPE UV stabilized mesh planting baskets come in a variety of sizes...

A 5h x 9w	\$ 4.00
B 4h x 6.75w	\$ 3.00
C 6h x 7w x 18l	\$ 6.50
D 4h x 8w	\$ 4.00
E 8h x 12w	\$ 6.00



OTHER ITEMS

Fafard Waterplant Soil - 18 litres, perfect medium for plants...

\$ 8.50

PLANTS - BOG

Plants come in 6 inch pots with well developed root systems. Most of the plants listed are hardy and perennials. They can tolerate varied water depths when mature (moist soil - 6" depth). Most of these plants will spread rapidly if not contained. Prices are subject to change dependent on pot size. We carry other plants not listed here...

WATER FORGET ME NOT



This plant has bright green leaves with small blue to violet flowers. Zone 3, **grows to 18"**. Does well in rich soils...

\$ 9.50

LESSER SPEARWORT

Buttercup yellow flowers with dark green narrow leaves. **Blooms all Summer**. Grow to 12" in size...

\$ 9.50

MARSH MARIGOLD

Early blooming with yellow flowers and dark green leaves. Zone 2. Grows to 12 - 18". Usually goes dormant in the summer, shade to help prevent this...

\$ 9.50

PARROTS FEATHER



A soft green feathery foliage that grows out over the waters surface. **Very attractive** and quick to spread. Semi-tropical...

\$ 0.50 per stem
7 for \$ 2.50

BLUE & YELLOW IRIS

Iris have sword shaped leaves and flowers that bloom for about 2 weeks in the spring. **Grows to 36" - 48"**, Zone 4, a perennial favourite...

Yellow Iris	\$ 9.50
Blue Iris	\$ 9.50

DWARF PAPYRUS

This tropical plant grows 1-2 feet in height. **Long stalks with bushy, spiked flower heads**. Very attractive. Zone 9...

\$ 9.50

VARIEGATED SWEET FLAG

Long thin sword leaves with white accent. Very attractive. Zone 4, a **vigorous grower** that may require annual repotting. Grows 2-3' in height...

\$ 9.50

ARROWHEAD



This hardy native has spoked leaves and **early summer blooming white flowers**...

\$ 9.50

PLANTS - FLOATERS & OXYGENATORS

Floating plants improve water quality, discourage algae and are great as a spawning media for fish. Submerged plants are not really oxygenators as they are often labeled because they consume oxygen at night. The aesthetic appeal plants bring to a pond can not be overstated and every pond should have some waterplants in it...

WATER HYACINTH



This attractive tropical floater propagates quickly and is **one of the most popular pond plants**. Brief purple flowers which can appear anytime of the summer. If plants look weak or discoloured, soak them for a few days in a bucket of water / fertilizer solution [Kent Marine Aquatic Plant Micronutrient for example] to give them a boost...

Jumbo Hyacinths \$ 3.85 each, \$ 39.00 / dozen
\$ 5.00 each, \$ 55.00 / dozen

WATER LETTUCE

Another **popular tropical floater**, water lettuce will propagate quickly. Prefers still and warm water. Light green with a nice felt texture and can grow to a 12" spread...

\$ 3.85 each
\$ 39.00/dozen

DUCKWEED

This tiny clover shaped floater propagates quickly, forming a green carpet. Koi enjoy eating this plant...

\$ 2.50/portion

SALVINIA

This small floater is **similar to duckweed** but larger. Tropical, the oval leaves are covered with silky hairs. 3/4" in size...

\$ 3.00/portion

NATTANS



This tropical floater is quite attractive and slightly **resembles lettuce or cabbage**. Spreads rapidly with a shallow root system. Light green in colour...

\$ 3.25/portion

HORNWORT

Excellent dark green bunched plant which **will float or can be potted**. Koi do not eat this plant. Extremely hardy and propagates quickly...



\$ 4.50/bunch
\$ 45.00/dozen

ELODEA

This native anacharis is light green with a spiral type growth. Very hardy and **a rapid grower**...

\$ 2.75 each
\$ 24.00/dozen

PLUMBING SUPPLIES

Plumbing makes the pond and using the proper quality components is the only way to proceed. The right components ensure watertight construction and control over your entire system. Please consult us for the proper advice on how to get the most plumbing out of your pond plumbing setup...

BULKHEADS

Bulkheads are required to achieve watertight connections in **filter chambers** and other applications. A male adapter can be screwed into the bulkhead so that pipework can be attached...

1/2"	\$ 9.00
3/4"	\$ 10.00
1"	\$ 12.00
1.5"	\$ 14.00
2"	\$ 16.00
3"	\$ 24.00
4"	\$ 49.00



RUBBER COUPLERS

Thick rubber construction with stainless steel clamps. Perfect **for connecting pipe to PVC flex hose or pipe to pipe without using any glue**. Allows quick connection and disconnection of plumbing...

1.25" & 1.25" to 1.5"	\$ 6.00
1.5" & 1.5" to 2"	\$ 6.00
2" & 2" to 3"	\$ 7.00
3" & 3" to 4"	\$ 8.50
4"	\$ 11.00
2" to 4"	\$ 12.00
1.5" end cap	\$ 4.00
2" end cap	\$ 6.00
3" end cap	\$ 7.50
4" end cap	\$ 9.00



PVC VENTURI

Venturis are the most efficient devices for adding oxygen to your pond. Simply **attach to the discharge/return side of you pump**. **Picture on pg. 18**, slight g.p.h. penalty...

PVC 1.5" slip	\$ 15.00
RTF 1.5" slip	\$ 33.00

BASKET SCREENS

These screens **prevent fish from being sucked into pipework**. The large bowl shape reduces suction with no flow penalty...

1.5"	\$ 24.00
2"	\$ 34.00
3"	\$ 36.00

OTHER ITEMS

Mixing Eductor - amplifies flow by up to 5 times . 1.5 inch	\$ 88.00
Kent Marine Auto Refill - adjustable level, good for attaching to sprinkler systems	\$ 35.00
Box auto refill - attaches to a regular garden hose	\$ 55.00
Float Switch - auto shut off of equipment based on water level, 10 ft.	\$ 38.00
20 ft. cord	\$ 45.00

BALL VALVES

PVC ball valves are used to **adjust water and air flow**. 3 way valves are great on filter returns as water can easily be diverted to waste after filter cleaning and then back to the pond. Available in both threaded and slip...

Regular Ball Valves

1.5"	\$ 20.00
2"	\$ 28.00
3"	\$ 249.00

3 Way 2" Ball Valves (comes with reducers for 1.5" use)

\$ 49.00

Vinyl Tubing Ball Valves

3/8", 1/2", 5/8"	\$ 6.00
3/4"	\$ 9.00
1"	\$ 10.00
1.25"	\$ 16.00



GATE VALVES

Gate valves are utilized **to allow or shut off flow** of water or air...

1.5"	\$ 15.00
2"	\$ 19.00
3"	\$ 35.00
4"	\$ 89.00



CHECK VALVES

Check valves **allow for flow in one direction**. Swing checks are designed for vertical installation while spring check valves are suitable for horizontal use (with a slight head loss)...

Swing 1.5"	\$ 25.00
Swing 2"	\$ 33.00

LINER CONNECTORS, MID WATER FEEDS & TPR'S

Perfect for installing watertight jets and flow returns in **ponds with liners**. Can also be used for air stations. Mid water feeds are the same construction but feature and dome cover to prevent fish from swimming into the line...

1.5" LC	\$ 22.00
2" LC	\$ 27.00
3" LC	\$ 37.00
4" LC	\$ 47.00
1.5" MWF	\$ 39.00
2" MWF	\$ 45.00
3" MWF	\$ 55.00
4" MWF	\$ 65.00
1.5" TPR	\$ 59.00
2" TPR	\$ 65.00



BASIC 4" BOTTOM DRAIN

This entry level bottom drain is durable and functional. Adjustable dome, comes with liner ring flange and hardware. **Screw pockets for easy flange installation if the drain is concreted in place...**

4" Bottom Drain

\$ 115.00



SUBURBAN BOTTOM DRAIN

This is large drain with **nuts and bolts to securely affix the liner flange** to the body of the drain. **Heavy duty construction** and a full size dome...

\$ 199.00

LIM SWEEP BOTTOM DRAIN

This innovative bottom drain has a **rounded sump section** to facilitate removal of all debris into the filter system. Comes with liner ring and stainless steel self tapping screws...

\$ 209.00

SPINDRIFTER BOTTOM DRAIN

Solid pvc construction with stainless steel screws, the Spindrifter is set apart by its **built in aeration dome**. The separate 1 inch conduit allows air to run to the drain and out the 4,500 slits in the membrane, thereby maximizing aeration. This is currently considered to be the best bottom drain on the market...

4" bottom drain

\$ 475.00



VINYL TUBING

Clear and flexible, vinyl tubing is **used as a conduit for water or air**. Measurements given are for I.D. (inside diameter)...



1/8" ID	\$.19 / ft.
1/4" ID	\$.29 / ft.
3/8" ID	\$.33 / ft.
1/2" ID	\$.49 / ft.
5/8" ID	\$.89 / ft.
3/4" ID	\$ 1.39 / ft.
1" ID	\$ 1.69 / ft.
1 1/4" ID	\$ 1.99 / ft.

FLEXIBLE PVC HOSE

Flexible pvc can be used as both a water and air conduit. **Eliminates the difficulties associated with working with rigid pipe**. Best used with Rubber Couplers. Flexibility decreases with increasing diameters and decreasing pipe lengths. Sold by the foot - 10% discount for lengths over 50 feet...

1" ID		
1.25" ID	\$ 2.00 foot	(\$ 180.00 for 100 feet)
1.5" ID	\$ 2.50 foot	(\$ 225.00 for 100 feet)
1.5" ID Black	\$ 2.75 foot	(\$ 250.00 for 100 feet)
2" ID	\$ 3.50 foot	(\$ 299.00 for 100 feet)
3" ID	\$ 6.50 foot	(\$ 559.00 for 100 feet)
4" ID	\$ 10.00 foot	(\$ 449.00 for 50 feet)

PREDATOR CONTROL

Unfortunately predators are a constant threat to our koi and not only in rural areas. From the ubiquitous Raccoon, the soaring Herons to the stealthy Weasels, all of these animals are anxious to make a meal of your fish. Sadly, it is often the best fish that are taken first. Electric fences are the best approach because they create a psychological barrier - once the animal has been jolted 1-2 times they are hesitant to return to your property...

ELECTRIC FENCER

This fencer supplies a jolt of 600 volts with very little amperage so it **will not harm animals**. Simple to setup as it only requires 2 connections. One is to the grounding rod, the other the electric line. When powered the fencer has flashing light and emits a faint ticking noise. **Very unobtrusive** and effective at repelling raccoons, herons and weasels. Easy to install in about an hour...

\$ 125.00

ELECTRIC FENCE PARTS

The fencer (listed above) powers the fence. Setup is simple. The grounding wire is attached to the fencers grounding connection. The grounding wire connects to the grounding rod, attached with the grounding nut. The rod is hammered into the ground

As for the **power side** of the circuit, the poly wire is attached to the fencer and run around the circumference of the pond, being elevated by the 2 foot plastic posts. These plastic posts are simply pushed into the ground - they have staggered holes in which the poly wire line is passed through. A good height for the poly wire is about 6 inches above the ground. You can have a double line around the pond perimeter. The setup is very straight forward once you see the components involved. **Don't want to set up? We provide this service...**

Fence Wire	\$.10 / foot
Fibreglas Post (4' high)	\$ 4.00
Fibreglas Post Clamp	\$.65
Grounding Rod	\$ 7.00
Grounding Rod Clamp	\$ 4.00

ORNAMENTAL HERON

Suitable as a life like decoration or as a deterrent to visiting Herons. Normally Herons are territorial so a passing by Heron will likely keep moving on if he spots this life like ornamental Heron...

Ornamental Heron

\$ 79.00

MOTION SENSOR WATER JET



Built in motion sensor automatically fires a 2 cup of water jet startling animals raiding your pond. Effective against Canada Geese, Cats, Cranes, Dogs, Deer, Ground hogs, Heron, Opossums, Pigeons, Rabbits, Raccoons, Sheep, Squirrel's, Skunks and more

Please note, some of these animals are more intelligent (Heron, Raccoons) and depending on the particular individual, the water jet may not be a totally effective deterrent...

Motion Sensor Water Jet

\$ 99.00

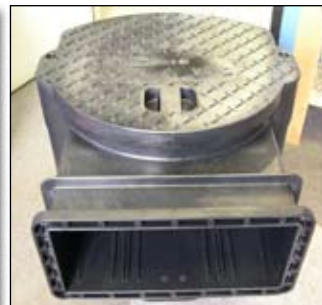
SKIMMERS

Skimmers serve to remove floating debris from the surface of your pond. If you plan to have a lot of floating plants a skimmer may not be ideal as it will draw them into the unit. There are 3 types of skimmers to consider. Full size box skimmers, No-Niche and In-Pond. Please see the "Skimmers" page at clarkekoi.com to help you decide which unit is right for you...

SAVIO POND SKIMMER

This **heavy duty injection molded unit** is one of the best on the market. So strong you can stand on the lid. It features a rounded body which does not bow, a strong debris screen with a handle - easily removed for cleaning. 8.5 inch weir door suitable for up to 800 square foot surface area pond and a 5,000 gallon flow rate. L 27.75", W 23", H 24". Room for 2 UV Bulbs...

Skimmer Body	\$ 495.00
8.5" weir door	\$ 39.00
16" weir door [2500-8000 flow rate]	\$ 39.00



MINI SAVIO POND SKIMMER

With the same features as the larger unit but in a **compact size**. Length 22.5", Width 17" x 20" Height. Recommend to go with 8.5" weir door priced above. Room for 1 UV Bulb...

Mini Skimmer	\$ 389.00
8" Weir Door [1200-6000 flow rate]	\$ 39.00

MICROSKIM POND SKIMMER



The Ultraskim Skimmer **contains foam and mesh screening** which trap debris, preventing the pump from being clogged. Dimensions are 17" x 14.5" x 19" with a 6" inlet door. Replacement parts available...

6 inch door	\$ 279.00
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NO-NICHE POND SKIMMER

No-niche skimmers are great for removing floating debris from the surface of your pond. Connect to a 1.5" abs male adapter. Skimmer insert floats, auto adjusting to varying pond depths. Remove straining basket for easy cleaning. **Requires 600 g.p.h. flow rate to operate properly...**

\$ 99.00



IN-POND SKIMMER



The easiest of all the skimmers to install, the in-pond skimmer is simply placed on a level spot within the pond. Operation depth range is approximately 18" to 26". Floating **skimmer insert automatically adjusts to pond level**. To clean remove the basket and dump. A pump (not included) needs to be attached for operation, recommend flow rates are 1,000 - 1,500 gallons...

\$ 129.00

UV STERILIZERS & ALGAE CONTROL

Ultraviolet Sterilizers serve two functions. As clarifiers, they control suspended planktonic algae (causes green water algae blooms). As sterilizers, UV's kill disease causing bacteria and viruses. If both functions are to be successful, water needs to be exposed to the UV light for a long enough period of time. This is why properly sizing the UV, to the pond and pump is paramount

We recommend UV's for ponds with high fish loads and / or ponds located in full sun and for those who have valuable koi collections...

ELEKTRA PRO UV STERILIZERS

The Elektra Pro's main advantage is its ability to clarify large ponds **utilizing only 1 Lamp** (bulb). Key Features include :

- 1 bulb means **reduced operating and bulb replacement costs**
- Friendly Access To Quartz Sleeve, Ballast & Lamp
- **Stainless Steel** housing and legs
- Pressure Switch automatically turns off unit when pump is not running
- **Electronic Ballast**
- **We carry all replacement parts**

The ElektraPro has a **6 inch wide stainless steel body** which allows for longer exposure times (9 times longer vs. 2 inch models) of the water to the UV light. Because it only uses one bulb, replacement costs of bulbs is much more economical when compared to the Aqua Ultraviolet unit which could require replacing 3-4 bulbs depending on pond size. **Bulbs are rated at 9,000 hours** which equates to 2 Summers of 6 month operation. 2" Inlet and Outlet, will connect to standard abs with transition cement...



Model Price	Watts	Pond Size	Max Flow	Exposure	
EP-5	36	5,000	3,600 gph	1.69 secs	\$ 1,095.00
EP-5 Bulb/Lamp					\$ 105.00
EP-10	52	10,000	6,000	1.94 secs	\$ 1,395.00
EP-10 Bulb/Lamp					\$ 165.00
EP-20	86	20,000	8,000	2.06 secs	\$ 1,595.00
EP-40	119	40,000	10,000	2.14 secs	\$ 1,795.00

We also stock all Delta UV parts including quartz sleeves, ballasts, seals etc for both the EP and UV1 Series UV's

LAGUNA UV STERILIZERS

Extended tube design for increased water contact and better algae kill rates. Strong durable plastic construction. Ballast connected right to unit (not external). An affordable and solid performing UV unit...

Wattage	Pond Size	Pump Flow Max.	Price
8 Watt	1,000	500	\$ 175.00
25 Watt	2,000	1000	\$ 219.00
55 Watt	5,000	1,300	\$ 295.00
Replacement UV Bulbs	8 Watt		\$ 55.00
	25 Watt		\$ 65.00
	55 Watt		\$ 75.00

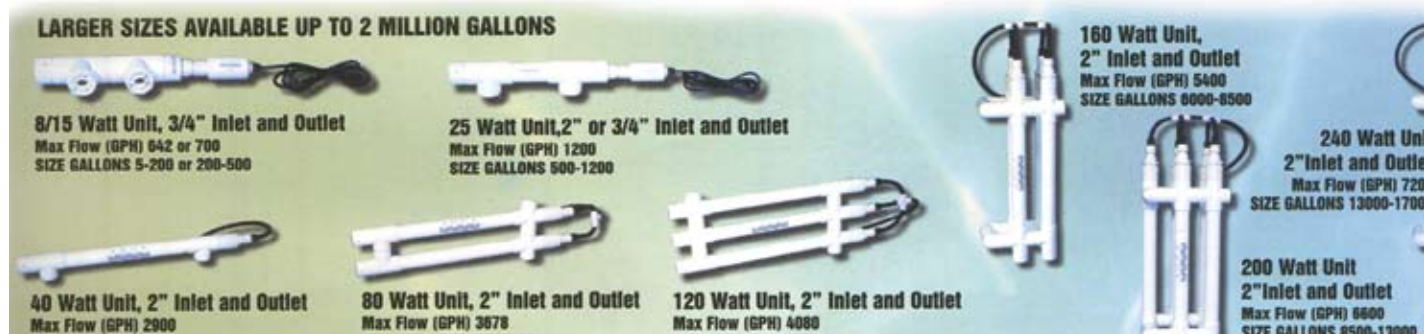
AQUA ULTRAVIOLET UV STERILIZERS

Aqua Ultraviolet has been **in the UV industry for 25 years**. The 40 watt unit has a built in ballast while other models encase the ballast in a separate steel box. This is a solid unit, but please consider the cost of replacement bulbs.

Ponds over **4,400 gallons** require a **3 bulb Aqua UV**, so bulb replacement costs would be in excess of \$ 300.00 per 2 year period. (assuming you run your UV for 7 months/year). In larger ponds the "Elektra Pro" is a better choice because they handle large ponds using just 1 bulb...

Read our **review at www.clarkekoi.com**

- Patented UV resistant **polymer housing has a lifetime warranty...**
- **14 month lamp life** - use for 2 seasons !
- Quartz sleeve offers excellent light penetration properties...
- Ballast **designed for outdoor use...**



Aqua Ultraviolet UV's, Bulbs & Sleeves

Model	Max. Pump Flow	Pond Size	Port Size	Price
8W	642	5 - 200	3/4"	\$ 249.00
15W	700	200 - 500	3/4"	\$ 269.00
25W	1,200	500 - 1,200	3/4" & 2"	\$ 395.00
40W	2,900	1,200 - 2,200	2"	\$ 579.00
80W	3,678	2,200 - 4,400	2"	\$ 949.00
120W	4,000	4,400 - 6,000	2"	\$ 1,279.00
AQUA UV bulbs		8, 15, 25 watt		\$ 79.00
		40 watt		\$ 109.00
Quartz sleeves		8, 15, 25 watt		\$ 79.00
		40 watt		\$ 119.00

EMPEROR AQUATICS UV BULBS FOR SAVIO SKIMMERS

Fit perfectly in both the full size and mini savio skimmers. Complete with sleeve, bulb and ballast...

16 watt	\$ 205.00
57 watt	\$ 305.00

OTHER UV BULBS

Cyprio - Replacement bulb for the popular Cyprio pressure filters, 9 Watt

\$ 59.00

Tetra - we can order any tetra units, **call for pricing**

We have many after market bulbs in stock at lower costs

VATS & TUBS

Vats are useful for holding, medicating and quarantining fish. PVC vats are also useful as filtration chambers. It is a great idea to have a backup vat on hand in case of an emergency situation...

SHOW TANKS

These pvc tanks are the **standard for shows across North America**. Quick and easy to assemble. Net covers available, vats available up to 3.5 feet tall...

3' x 2.5'	130 gals.	\$ 569.00
3' x 3'	160 gals.	\$ 725.00
6' x 2.5'	530 gals.	\$ 689.00
6' x 3'	635 gals.	\$ 885.00
6' x 3.5'	740 gals.	\$ 1229.00
8' x 2.5'	940 gals.	\$ 779.00
8' x 3'	1140 gals.	\$ 939.00
8' x 3.5'	1315 gals.	\$ 1449.00

RUBBERMAID VATS



Vats are **perfect for quarantining** and as temporary or small ponds. Tough structural foam construction, available in 100, 150 and 300 gallon sizes. All tanks are 2 feet in depth...

100 gallons	32" x 51"	\$ 245.00
150 gallons	40" x 57"	\$ 395.00
300 Gallons	62" x 69"	\$ 595.00

KOI BOWLS

These blue handling tubs are **the industry standard** for viewing koi. Heavy duty. 19 gal - 22" diameter x 11.5", 23 gal - 27" Diameter x 12"...

19.5 gallon	\$ 75.00
30 gallon	\$ 99.00



CIRCULAR PVC TANKS



Sizes 5 to 2000 gallons. **Seamless polyethylene construction**. White in colour. Perfect for fish holding or for use in filtration systems. Covers / lids also available...

75 gallons 24w x 48d	\$ 289.00
cover	\$ 53.00
90 gallons 28w x 42d	\$ 329.00
cover	\$ 65.00
150 gallons 36w x 42d	\$ 525.00
cover	\$ 99.00
300 gallons 48w x 48d	\$ 877.00
cover	\$ 276.00

WATER PUMPS

There are two types of pumps for ponds, submersible and non-submersible. In terms of power consumption, non-submersible pumps are generally more energy efficient, especially when pumping volumes in excess of 2000 g.p.h. The only disadvantages of non-submersibles are that they take more time to setup and usually cost more to purchase...

DOLPHIN PUMPS

Dolphin inline pumps offer an incredibly efficient capacitor motor. The Amp Master series draw as little as **1 amp** for 3000 gallons of flow (1 / 15 th. h.p. motor). This translates into much lower hydro bills especially when compared to submersible pumps

Dolphin also offers an amazing **9 year warranty**. These pumps are compact and come with a **3 foot cord**. Other models available...



Amp Master Pumps

2800s	1.0 amp	1,800 g.p.h.@ 6 ft. head	\$ 369.00
*4200/3600	1.5 amps	3,600 g.p.h.@ 6 ft. head	\$ 429.00
*5600/4700	3.3 amps	4,800 g.p.h.@ 6 ft. head	\$ 499.00

**flow rate based on whether 2" or 1.5" piping is utilized*

1.5 Inch Connectors	\$ 15.00
2 inch Connectors	\$ 17.00
Replacement Seal Kits	\$ 32.00

www.dolphinpumps.com

PRIMING POT

Priming pots maintain prime (water) in the pump pipe **allowing for easy startup of pumps**. This model is designed for use with Dolphin inline pumps but can be used with any pumps on the market...



\$ 119.00

ANTI-VIBRATION PAD

Motors by their nature vibrate. Although not extreme in the case of water pumps in this range, adding an anti-vibration pad does reduce noise and vibration thereby **increasing motor lifespan...**



\$ 14.00

PERFORMANCE PRO PUMPS

The Performance Pro Artesian series are an excellent line of pumps. The advantages over the Dolphin line include 8 foot cord, **self priming operation** and **built in priming pot**

These pumps have an excellent reputation with pond keepers on the various koi boards on the web. Polypropylene priming pot with lexan lid so there are no sticking problems or rust, **3 year warranty...**



A1/8-30	1/8 h.p. 152 watts	3030 g.p.h.@ 4 ft. head	\$ 659.00
A1/4-49	1/4 h.p. 316 watts	4902 g.p.h.@ 9 ft. head	\$ 729.00
A1/3-56	1/3 h.p. 428 watts	5652 g.p.h.@13 ft. head	\$ 759.00
Replacement Seal		\$ 29.00	

PONDMASTER WATER PUMPS

These energy efficient Danner pumps can be **operated both in the water and out**. Foam pre-filter is easily removed for cleaning, ceramic shaft, no oil, 18 foot cord, Replacement parts available, **3 year warranty**. We also stock impellers, volutes and replacement foam filters..



75 g.p.h.	\$ 29.00
150 g.p.h.	\$ 45.00
250 g.p.h.	\$ 95.00
350 g.p.h.	\$ 119.00
500 g.p.h.	\$ 135.00
700 g.p.h.	\$ 149.00
950 g.p.h.	\$ 179.00
1,200 g.p.h.	\$ 239.00
1,800 g.p.h.	\$ 289.00
2,400 g.p.h.	\$ 349.00
3,600 g.p.h.	\$ 395.00



Impeller 150, 250 g.p.h.	\$ 22.00
Impeller 350, 500. 700 g.p.h.	\$ 30.00
Impeller 950, 1200	\$ 43.00
Foam Pre-Filter 250 - 700 g.p.h.	\$ 15.00
Foam Pre-Filter 950 - 1800 g.p.h.	\$ 19.00
Volute 250 - 700 g.p.h.	\$ 21.00
Volute 950 - 1800 g.p.h.	\$ 27.00
Volute 2400, 3600 g.p.h.	\$ 36.00

PONDMASTER PRO XP HY-DRIVE PUMPS

The Pro XP HY-Drive pumps offer amazing energy efficiency with a **hybrid mag drive and direct drive technology**. Comes complete with heavy duty polypropylene enclosure with debris screen. The HY-Drives can be **used both as submersibles or as inline pumps**. These pumps are suitable for running skimmers and waterfalls. 2 year warranty..

XP HY-Drive 1600 gph	1.0 amps	1400 gph@5'	\$ 255.00
XP HY-Drive 2600 gph	2.2 amps	2450 gph@5'	\$ 399.00
XP HY-Drive 3200 gph	1.6 amps	2050 gph@5'	\$ 309.00
XP HY-Drive 4000 gph	1.9 amps	2700 gph@5'	\$ 359.00
XP HY-Drive 4800 gph	2.0 amps	3900 gph@5'	\$ 415.00

EASYPRO PUMP WITH FOUNTAIN KIT

Epoxy filled motor with no oil. Comes complete with diverter (except 250 gph) and fountain kit which includes **3 different fountain heads**. Pump has sponge prefilter which can easily be removed. Replacement impellers and foam filters available. Can be used submerged or inline. **Full 3 year warranty**..



200 gph	12ft. cord	17 watts	\$ 79.00
400 gph	12ft. cord	20 watts	\$ 119.00
600 gph	16ft. cord	35 watts	\$ 139.00
850 gph	16ft. cord	60 watts	\$ 165.00
1050 gph	16ft. cord	70 watts	\$ 209.00
1350 gph	20ft. cord	90 watts	\$ 259.00

OTHER ITEMS

Float Switches - great for auto shutoff of pumps based on water level.	10 ft.	\$ 39.00
	20 ft.	\$ 44.00

WATER TREATMENTS & TESTS

Regular water testing should be considered an essential part of your pond maintenance regimen. We recommend having tap water neutralizer (Prime), test kits, salt and Ammo Lock2 on hand at all times in case of an emergency...

TETRA LABORETTE TEST KIT

This Tetra water testing kit **includes reagents to test pH, Nitrite, Ammonia, Hardness and Buffering**. Includes an informative instruction booklet, water withdraw syringe, colour scales and 2 test vials...

\$ 28.00



POND PRIME

2x as potent as regular prime, the Water conditioner removes chlorine, chloramine, and ammonia. It also detoxifies nitrite and nitrate. 250 ml. treats 2,500 gallons, 4L 80K gallons...

250 ml	\$ 15.00
500 ml	\$ 24.00
1 litre	\$ 37.00
2 litre	\$ 65.00
4 litre	\$ 109.00

AMMO LOCK 2

This useful product **chemically locks up toxic Ammonia**. If high Ammonia levels are detected, immediate action should be taken. Water changes, reduced feeding and ammlock will help. 16 oz. treats 2,000 gallons...



16 oz.	\$ 19.00
32 oz.	\$ 32.00
64 oz.	\$ 49.00
128 oz.	\$ 67.00

CALCOFORCE

Calcoforce is a pure source of calcium carbonate that is **great for buffering water**. Oyster shells also work but do not dissolve as readily. Calcoforce also **helps enhance the whites on koi**...

1 lb.	\$ 10.00
10 lb.	\$ 85.00
25 lb. bucket	\$ 299.00

ULTIMATE CONDITIONER

This **full functioning water treatment** removes and detoxifies chlorine, ammonia, chloramines, copper and heavy metals. It also boosts alkalinity, adds electrolytes and helps the fishes slime coat...

1 quart - 2k gal	\$ 25.00
1 gallon - 7.7 k gal	\$ 67.00

www.koicarekennel.com

KOI CLAYS

Koi Clays are added to the pond to **simulate the effects of a mud pond**. They **stimulate fish appetite**, improve water clarity and provide trace minerals for your koi. They also help with the control of string algae. 25 grams / week / treats 500 gallons, therefore 1 lb treats 9,080 total gallons...

Microbelift Koi Clay	4 lbs.	\$ 32.00
Terrapond Clay	2 lbs.	\$ 30.00
	4 lbs.	\$ 55.00

MICROBE-LIFT



Microbe-Lift PL is a highly concentrated natural formulation of bacteria which **dissolve organic sludge**, break down algae and create a healthy environment for you fish...

32 oz \$ 36.00

Microbe-Lift TheraP is a bacterial culture which enhances fish health. It **reduces stress, increases oxygen levels and resistance** to bacteria and parasites...

32 oz \$ 42.00

Microbe-Lift Autumn/Winter Prep helps accelerate the decomposition of leaves, scum, sediment, and other organic matter - 2 part system

32 oz \$ 45.00

www.microbelift.com

WATER QUALITY TESTING

If you take **frequent** or require more **accurate measurements** of your water parameters then **using digital meters is your best option**. We recommend salinity and ORP meters as important tools to own...

Eco pH meter - 0.1 resolution (display), +/- 0.2 accuracy, tests entire pH scale. **300 hour battery life...**

\$ 89.00

Digital salt meter - LCD display salt percentage, +/- 0.03% accuracy. Simply **dip in pond for 2 seconds to measure salinity...**

\$ 93.00

ORP Meter - **measure the oxidation-reduction potential** to quantify your water quality. Also great for accurate dosing of Potassium Permanganate. Range -200 - +2000 mV, 9 volt battery. By American Marine...

\$ 159.00



ORP/pH/Temp. Combo Meter - waterproof, battery display, ORP, pH and temperature readings, auto shutoff, battery included. **Great combo meter...**

\$ 195.00

TDS Meter - waterproof, battery display, 0 - 10 ppt (0 - 10,000 ppm) total dissolved solids reading plus temperature, battery included. Levels under 1 ppt are considered good...

\$ 129.00

Conductivity meter - **auto temperature compensation**, measure the hardness of water. 9 volt battery...

\$ 179.00

Oxygen Meter - % Oxygen or ppm displays, measures 0 - 20 ppm, 9 volt battery, 5 foot cable - an **excellent meter at an affordable price...**

\$ 325.00

Wireless Thermometer - range is 100 feet, 2 AAA batteries in both transmitter and receiver, fahrenheit or celsius display...

\$ 46.00

BARLEY STRAW



A natural way to control string algae. Place mesh bag of straw in your filter or other location with water flow. Should be placed in your pond early in the season because it doesn't do well with existing algae - better at preventing new algae from growing. Bag treats 2,500 gallons...

\$ 30.00

CHLORAMX

Zeolite binds ammonia through ion exchange or "adsorption". Not feasible in terms of a pond filter media because of the large quantity required. However, **perfect for quickly lowering ammonia levels in overstocked vats.** Can be recharged with a strong salt solution. 48 ozs. By Aquarium Pharmaceuticals...

\$ 15.00

POND BALANCE

Pond Balance is a powder which is added directly to your pond to **control string algae (aka blanket weed)**. Doses are applied 3 times the first month, then 1x every month thereafter - or as required. Sizes are based on total gallons for 3x treatments. ie. 3,600 size treats 1200 gallon pond 3x...

1,800 gallon	\$ 25.00
3,600 gallon	\$ 40.00
11,000 gallon	\$ 72.00

OYSTER SHELLS

Great for maintaining pH in your pond. Calcium carbonate **supplies both buffering and hardness to your water.** Simply locate shells in an area of water flow to assist dissolving. Approximate dosage = 4 lbs. per 2,000 gallons of pond water...

5 lbs. \$ 8.00

KOI VITAL

TetraPond Koi Vital is a specially formulated water conditioner which promotes greater vitality, **improves colouration and encourages spawning.** It replenishes essential trace elements and vitamins that are often depleted in ponds. 17 oz. treats 3,000 gallons...

17 oz. \$ 21.00

OTHER WATER QUALITY PRODUCTS

Tetra pH Test Kit - 5 - 10 range, up to 50 tests	\$ 9.00
Tetra Ammonia Test Kit - 30 tests	\$ 15.00
Tetra Nitrite Test kit - NH3, 50 tests	\$ 12.00
Tetra Nitrate Test kit - 40 tests	\$ 18.00
Tetra KH (Alkalinity) Test Kit - 20+ tests dependent on KH	\$ 14.00
Tetra GH Test Kit - measure hardness	\$ 12.00
Tetra Oxygen Test Kit - 30 tests	\$ 20.00
 Aquarem - liquid flocculent , reduces turbidity, 16 oz. treats 2,500 gallons	 \$ 27.00
Aquasafe - removes chloramines from tap water, 500 ml. treats 2,500 gal.	\$ 23.00
Sera Pond Peat - helps control algae and lowers pH, mesh bag	\$ 30.00
Hydrometer - acrylic, salinity scale 0 - 40 ppt, auto calibration	\$ 18.00
Anti-Foam - removes surface scum foam, 1 litre treats 2,000 gal.	\$ 45.00
Bacta-Pur - natural bacteria for nitrification, 1 L treats 700 gal.	\$ 25.00
4 L treats 2,800 gal. for startup	\$ 65.00
Ammonia Chloride - create a mature filter without needing fish in the pond	\$ 39.00
 Aqua-Blue Pond Dye - 1 oz treats 1K gallons, 16 oz.	 \$ 31.00

WINTER CARE

Although koi are extremely hardy, care has to be taken to ensure they survive our harsh Winters. Minimally, an area needs to be kept ice free for gas exchange to occur. This should be accomplished by using both a floating de-icer and an air bubbler. Additionally, covering your pond with a temporary greenhouse is inexpensive, easy to do and will drastically reduce the amount of ice. See our website for complete instructions on how to construct a Winter covering. For the best results a heating system should be installed...

POND HEATING SYSTEM

After using several different pond heating systems, **Clarke Koi has taken the best concepts** from each and developed a system which addresses all concerns. Using a modified Teledyne-Lars pool heater, water temperatures can be economically maintained year round. The 125k Btu unit is capable of heating a 20,000 gallon pond. The system uses glycol, a stainless steel exchanger, flow switch and a thermostat. 2 years parts, 1 year labour. Please call for more details and you can also **visit the Heating page on our website...**



starting at \$ 3,500.00

GREENHOUSE POLY



6 mil greenhouse poly sheets are available in widths of 24 or 32 up to 100 feet in length (other widths special order). Rated for a 6 year lifespan. **Do not confuse this material with cheaper vapour barrier sheeting** which has not been treated for UV rays and will deteriorate within 1 year. Custom cut by us but one dimension must be 24 or 32 feet in size...

\$ 0.22 per square foot

FLOATING DEICERS

Deicers will **maintain a hole in the ice for gas exchange** during the Winter. This is critical. They are thermostatically controlled and turn on only when necessary, conserving electricity. Should be used in conjunction with an air pump...



100 watt	\$ 82.00
250 watt	\$ 79.00
750 watt	\$ 88.00
1250 watt	\$ 87.00

HEAT EXCHANGERS

These units are **stainless steel** making them safe for fish ponds. They are compact and offer good heat transfer efficiency. The BTU output of your heater should be close to the exchangers rating...

130k btu	\$ 729.00
180k btu	\$ 999.00



A passion for ponds...
CLARKE KOI
PONDS
INC.