

EDITOR: ROSIMERI TRAN CO-EDITOR: DANIEL TRAN

- April CCKS Meeting, April 18th at 2:00 p.m. at Dale & Sandy Winn's, 8099 E. Nees Ave, Clovis, 93619
- May CCKS Meeting, May 12th at 7:00 p.m. at Ryan & Richele Kleiser's, 13136 Wiregrass Lane, Clovis, 93619.

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Central California Koi Society April 2015

Issue 19

Skin and Gill Flukes – by Rosimeri Tran, KHA

As spring has arrived and your koi have woken up from their winter slumber, you may have noticed that they are not quite the same as they were last fall. Some of the signs to look out for in koi affected with Flukes are as follows:

- 1) Lethargy (sleepy and unresponsive)
- 2) Redness or irritated skin
- 3) Excessive mucus covering on skin
- 4) Isolation and weakness

Your koi may become thin to the point of emancipation, motionless and just sitting on bottom of pond, along with a milky film surrounding the koi. This milky film is also called "gray slime disease" it is the body overproducing the slime to offset the heavy feeding of the koi skin by this parasite, the fluke. They will most likely try to rub or flash, which is scrape their body on the pond itself, such as the skimmer, bottom drain or anything such as the pond bottom to rid themselves of this irritating bug; in doing so they will open themselves up to bacterial infection, so the redness or sores are secondary to their problem. So catching this problematic bug early can help your koi get better faster.

The Fluke parasite will thrive off of the koi's epidermis and gills and are a result of poor pond conditions, for example, low oxygen levels, overcrowding and heavy organic matter. They prefer cooler water temperatures that are why you see it happen right around spring, as the water temperatures were cooler in the winter, and due to the koi hibernating their immune system were weak enough to allow the Fluke to attack it.



Gill Fluke vs Skin Fluke

The only way to detect a Fluke on the koi is to use a microscope with a minimum magnification of 40X and do a skin or gill scrape, as they are not visible to the naked eye. Flukes have a slender cylinder shaped body, on the bottom of the Fluke is pair of anchor hooks that attach to the koi and help it move around the koi, this is where you will see redness and possibly sores due to Flukes move around and don't stay in one play on koi. By the Fluke moving around and possibly jumping from one host koi to another, they will bring bacteria with it and in doing so will cause an outbreak of Aeromonas and Psudomonas (ulcers). The way to detect the Gill Fluke from the Skin Fluke is that the Gill Fluke has a more rounded head and has four dark spots in its body whereas the Skin Fluke has a more pronounced hook and no spots. The Gill Fluke will lay eggs, but the Skin Fluke spawns live young. Fluke's lifespan are they live from two weeks to one month, in cold water environments the eggs, larvae, and adults can hibernate up to six months.

So now that you know what is affecting and infecting your koi it is time to get rid of those pesky bugs. Salt does not affect Fluke or kill them, they can live comfortably in a salted pond with a reading of 0.3%, so don't bother with salt. Potassium Permanganate has been showed to be effective when used as a 8 hour bath at the dose of one gram per 100 hundred gallons (2ppm) or when dosed at 2 ppm for five days consecutively, remember to bypass your filter or you will also kill off your good nitrifying bacteria, and have a lot of oxygen going, and neutralize with hydrogen peroxide. Formalin has been used, but you should be cautioned to turn off filters and be aware of the negative and sometimes deadly actions that can kill your koi when directions are not followed effectively, so I would stay away from Formalin. Fluke tabs have been used, they are usually 500mg of (methyl-5-benzol-benaimidizole-2-carbamate) and (dimethyl 2,2,2trichloro-1-hydroxyethyl) phosphonate). They should not be left in the water longer than 48 hours as koi have been known to develop dermatitis issues with prolonged use. The most effective treatment on Flukes is Prazi (Praziguantel) this is the best treatment and less harmful to your koi. It is a powder that you mix in one liter of water and then dose your pond as 2mg per liter of water, so in a 100 gallons of water you would need about seven hundred mgs, in 1000 gallons you would need seven grams of Praziguantel. It does not require water changes and does not affect any plants that are in or around the pond, but UV lights should be turned off as this can deactivate the Prazi effectiveness. The pond should be treated in four to five days after the first treatment to kill off any larvae. Prazi is the least expensive and has been shown to be the most effective in not only killing the Flukes but the offspring that were not killed in the first round, plus it is harmless to your koi and plants, so I would recommend Prazi over any other type of treatment.

After the pond is eradicated of the Flukes you can treat any bacterial infections by either increasing salt in pond to 0.3% this will help the koi sores to heal faster, but if they are open wounds you may need to apply ointment to topical medications to slow down the deterioration of the skin lesions and to help speed up recovery.





Praziquantel available at pond stores and online, it comes in a powder form that you mix with one liter of water.

Fluke as seen in microscope



Koi with sores due to Flukes

Koi of the Month-by Rosimeri Tran

Hariwake



DOITSU

SCALED

Hariwake originated from Ogon or Ogon Matsuba and are primarily two metallic colors, a platinum base color with either yellow-gold (Yamabuki) or orange (Orenji) markings. They are the most commonly see koi seen in retailers, and therefore are the most popular. As a two-colored all metallic koi, they are classified in the Hikarimoyo-mono, meaning one color (mono) on a platinum (hikari) background. The yellow Hariwake are referred to Lemon Hariwake and are very popular especially the doitsu version (scale less). The Doitsu Orenji Hariwake are also known as Kikusui, and they should be orange not red, as the red would indicate it would be classified as a Kohaku and with a platinum background, making it an amazing one at that. Now the background white should be bright and shimmering or metallic, this is what will make this fish stand out from the crowd. You want to see the head primarily platinum, some color on it is okay but the better quality will have a platinum head. The body should look metallic or with some platinum on it and the scales should give the appearance of 3 dimensional. If there is black in the pattern it is not a Hariwake but a Matsuba with a Hariwake pattern, the reason it is called a Matsuba Hariwake is because Matsuba koi should have three colors so any koi that looks like this you should pass up on. The Hariwake can add a colorful collection to your pond and knowing what to look for, a bright platinum background and either a bright yellow or orange pattern, will help you decide.

KHA Corner – By Rosimeri Tran, Certified KHA CONTROL OF ALGAE WITH BARLEY STRAW

Barley is used to inhibit the growth of algae that can turn the pond water green. It is truly organic, no chemicals are used which is a good thing, as many pond keepers tend to overuse chemicals in the pond water which changes the chemistry of the water and can affect the koi's water environment and be unhealthy for the koi, some chemical algae killers have not only killed the algae but also taken some koi along with them.

The way Barley works is as follows:

When Barley is placed in the pond water it will begin to disintegrate and during this time a chemical will be released, called Lignin. This chemical will inhibit the growth of algae, remember I said inhibit, not prevent any growth. So there may still be some algae growing but just on a smaller scale. Now the process is temperature dependent, where the warmer the water temperature is the faster the process works. For example, it may take 6-8 weeks for the straw to become active when the water temperature is below 10 degrees C but only 1-2 weeks when the water temperature is above 20 degrees C. Now once the straw begins its decomposing process it will remain active until it is entirely decomposed. The length of this period will be contingent on the temperature, form of straw, and its application location. On average straw will remain active for approximately six months, from after that point its effectiveness will decrease gradually.

Here's the technical breakdown:

When the straw rots, chemicals in the cell walls decompose at different rates. Ligning are constant and most likely will remain and continue to be released into the pond water as the other components begin their decay. Provided there is plenty of oxygen in the pond water, ligning will be oxidized into humic acid and other humic substances. These humic substances occur naturally in many waters and when sunlight shines onto water which contains dissolved oxygen, in the presence of humic substances, hydrogen peroxide is formed. Research has shown that low levels of hydrogen peroxide can inhibit the growth of algae and that sustained low concentrations of hydrogen peroxide can have a very similar effect on algae to that of straw. But Peroxides will only last in the water for a short time, but as long as there are humic substances present, peroxides will be continuously generated whenever there is sufficient sunlight. So, with the slow decomposing of the straw in your pond water, there will always be humic substances available present to catalyze So, in summary, chemicals working together to inhibit the growth of algae. this reaction. Barley straw has been shown to work more effectively than any other type of straw such as wheat, linseed, lavender stalk and maize. Do not use hay or green plant materials as they can release nutrients into the water which will increase algal growth, along with, when they decompose rapidly they will deplete the oxygen from the water very rapidly.

How to use:

Using straw for koi ponds is very easy, straw should be placed in a net bag, nylon stocking if purchased loosely, but usually it can be purchased in bundled bales, which is very easy to use. This bundle should be attached in the path of moving water, such as a stream, river, or waterfall. Making sure you anchor the bundle as it will need to float in the water to be effective; as time passes the bundle will sink to the bottom of the pond and will not be as effective, so by adding a floating mechanism i.e. corks, polystyrene or small plastic bottles with well fitting screw caps, will ensure that the bales will float and not sink and make their use more effective. Once the bale has decomposed thoroughly, you can reuse the net and floatation device again. Place the straw bale where there is a continuous flow of water, either by the stream, fountain or waterfall, by doing this it, ensures the straw will be oxygenated and it will spread the chemical throughout the pond. The straw can be applied at any time during the year, but will be more effective if used prior to algae growth, because the anti-algal agents released by the straw are much more effective in preventing algal

growth than in killing algae already present. So using it when the water temperatures are low such as in the winter or early spring is recommended. Once it becomes active, approximately one month in the pond, it will continue to inhibit the algae from growing for approximately 6 months. Now we don't want to wait for it to completely decompose before adding the next bale, so sometime around the 5th month, attach another bale in and it will begin the process, so that when the first bale is removed your water will still have the chemical process inside and can continue its path of blocking the algae growth. One note, DO NOT add straw when prolonged temperatures of hot weather, as the combination of the heat and the dying algae will create a deoxygenating problem in the pond.

So in summary, the Barley bales is an organic way of treating algae problems in the pond. But, it is most effective if you catch it before an algae bloom and then keep up with it by adding Barley prior to the first application runs out. Barley bales can be found in most pond dealers store and online and is cost effective, safe for other plants and koi, and will not harm the ecosystem of the koi.





See the barley bale in the waterfall.

The text of an information sheet produced by the Center for Aquatic Plant Management in England who discovered and developed the use of barley straw as a method of algal control.

Upcoming koi shows/Events



Genki Koi grow out event: April 18th 10am-5pm 1850 S. 10th Street San Jose, CA 95112 408-295-4500 10% discount everything in stock—WALK IN ONLY. For more information go to www.genkikoi.com



The AKCA will hold it's annual Wet Lab and AKCA Banquet at the Hilton Garden Inn in Sacramento. Go to the AKCA website: akca.org for the registration form and information. I plan to be there in attendance as a KHA, so hoping some of you may join me there.



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PRESIDENTS CORNER—Rosimeri Tran

Hello everyone,



Well Spring has finally arrived here in the Central Valley and I hope everyone is enjoying the great weather and that all is well with your koi and pond. Spring can bring with it the unfortunate parasites and bugs that can make our koi ill and I hope this is not the case and that all the koi are doing well. Feeding

should have resumed; and it is recommended to start the koi off with some wheat germ at first feeding small amounts till they get their appetite back. Overfeeding or feeding food that they don't consume will foul up your water as it will just sit there. Another thing to remember is that now you are feeding them their water quality will need to be monitored, changing the water 10% weekly or bi-weekly is recommended as this will remove the toxins created by the fish eating.

Our koi show is coming along, I have asked Larry Gill to be our head judge and he has accepted, I am working on getting an assistant judge to work with Larry. Norman Call has designed our 2015 show pin and it is in production as we speak, it should be ready in 4-6 weeks and I will notify you when it is. Fig Garden has given us the ok to have our show at the CVS parking lot as usual. Inquiries are already coming in for the exhibitor tanks and vendor booths.

The joint meeting is still in limbo, as I am awaiting Ron & Malise to confirm the dates.

I would like to encourage all members to make their best effort to attend our meetings, we need input from everyone on how to improve and make our meetings more fun/educational, and we can't do it alone, so try your best to make it out to Dale and Sandy's home in Clovis on Saturday, April 18th at 2pm. So I hope to see everyone there, and have a great April!



CALENDAR OF CCKS GENERAL MEETINGS

April 18th at 2:00 p.m.

Dale & Sandy Winn

8099 E. Nees Ave Clovis, CA 93619

May 12th at 7:00 p.m.

Ryan & Richele Kleiser

13136 Wiregrass Lane Clovis, CA 93619

April general meeting is scheduled for Saturday, April 18th @ 2:00 p.m. at Dale & Sandy Winn's home 8099 E. Nees Ave, Clovis 93619. RSVP at 559-779-3149.

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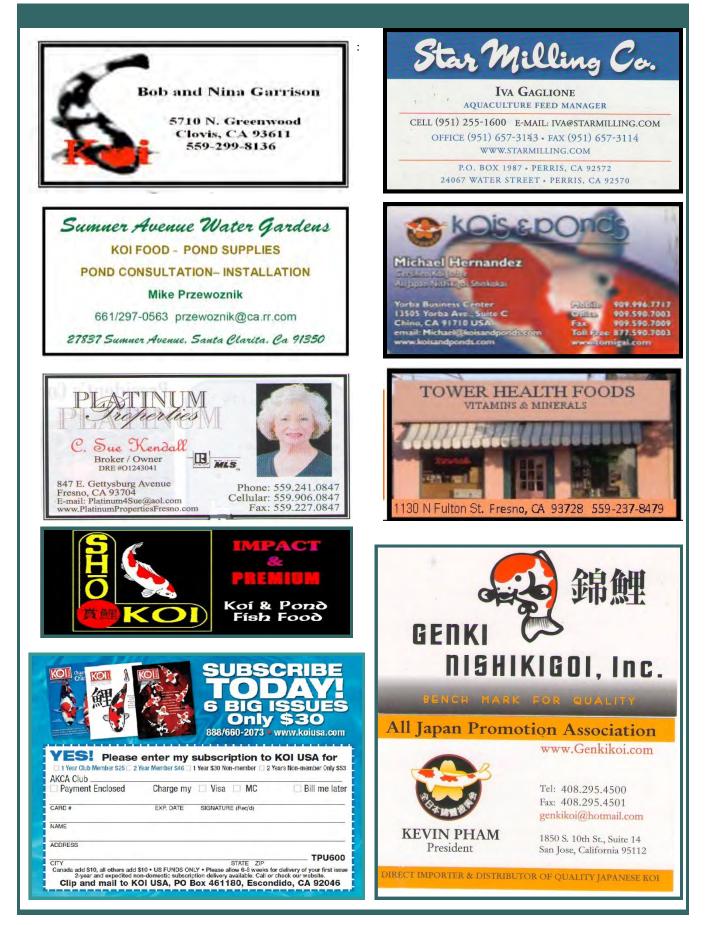
March General Meeting Minutes—By Nancy Palazzo

General Meeting Minutes of Central California Koi Society March 10, 2015 Meeting called to order at 7:10 by President Rosimeri Tran in the Home of Tony and Nancy Palazzo. Rosimeri thanked all those who took part in representing the Koi Club at the The Home & Garden Show, March, 6, 7, 8. in the display booth. The joint meeting of Bakersfield and Fresno Koi Clubs is not set as yet. Fresno is hosting this year. Details are pending. We are hoping to have a speaker for this event. The club will be furnishing the main dish for this event and the members will fill in with pot luck dishes. This is always a fun event. Tony Palazzo showed off his empty pond to those who were interested. He explained that there was a lot of water pooled under the bottom of the pond and some cracks had appeared which he was repairing. He also was going to re-enforce the outside with cement to take some of the weight from large rock boulders putting too much stress on the sides. We are still in the planning stages of the Koi show this fall. More info will be coming on those plans. There needs to be some decisions made on a replacement trailer prior to the show as the present trailer cannot transport the new tanks as it is too small. The raffle was held and the meeting was adjourned for refreshments at 8 pm. Nancy Palazzo, Secretary. The meeting was closed at 8:15 pm.

Respectively submitted by Nancy Palazzo.

A note from Nancy and Tony. The pond remodel is finished and all fish made it through their adventure in tubs. Looking good and very hungry.

THANK YOU TO ALL OUR SPONSORS AND ADVERTISERS



ANNOUNCEMENTS

2015 Membership dues are due in the amount of \$35.00, please make checks payable to CCKS and mail

fo MEMBERSHIP	CCKS 5832 E. Erin Ave Fresno, CA 93727
<u>KOI for Sale:</u>	KOI PINS for Sale
We are thinning out our pond and have various koi for sale some show quality, please contact Seng at 559-999-1706 for pricing and if interested in viewing. We also have some nice baby koi, different color, For Sale, baby koi prices are \$10.00, \$15.00, \$20.00, and \$30.00 each.	2014 Show pin \$4.00 each 1997—2013 \$2.00 each Contact Rosimeri at cen- calkoi@gmail.com or call her at 559-970-8508 if interested in pur- chasing any.
CCKS Club Store: Potassium Permaganate \$1	5.00 (1 lb jar)
Sodium Thiosulfate \$1	0.00 (2 lb jar)
Call Seng Tran at 559-999-1706, or sengtran@gmail.com if interested available at every club meeting.	r emau in purchasing, we will also have these

I'm sure everyone of you has a unique story to tell regarding experiences you have had since you began this crazy hobby, both good and bad. Star Milling/ Ultra Balance Premium Koi Foods would like to publish your stories on their website <u>www.koifood.com</u>. Check out their website. Under the Library link you will be able to get an idea. If you're interested please send your stories to Iva at the following address: <u>IVA@STARMILLING.COM</u>. I'm sure we will all enjoy reading them! A short story and a photo (pdf) is all we need. Please feel free to email me if you have any questions J

Summer Avenue Water Gardens

Newsletter advertiser Mike Przewoznik of Sumner Avenue Water Garden offers the following to CCKS members: "I would like to support your club and I appreciate the business I have received from you and your club members. I would like to initiate the following program for your club members going forward: FREE shipping on all orders **\$75.00** or more. Club members can combine orders to reach the **\$75.00** if they wish as long as I ship to one address. Items that require truck shipping or items that are extremely heavy will be looked at on case by case situation."