



Dr Erik Johnson

Veterinarian

Hobbyist

Wrote some books

Practiced Fish Medicine since 1991

Never got it right.

Book: “Saving Sick Fish”

1. Multimedia book
2. 40 page text with plenty of detail to “win” a fish health case
1. QR Codes out to better deeper resources in savingsickfish.org like
 1. Downloads
 2. Podcasts
 3. Videos



Leading Cause of Death BAR NONE



PH and pH Crash

Slow or fast proportional to mortality rate

Can happen anywhere even Reno NV

Carbonic Acid and Amino Acids and EVERYTHING

drops PH

Seachem Neutral Regulator: I use a full dose and

then 1/4 to 1/2 dose weekly. Unnecessary on

trickle systems.

PH Pills <https://drjohnson.com/phpill/>

- Plain Plaster of Paris
- Mix per label instructions
- Silicone cupcake pan
- Dry *extremely* thoroughly
- Should bubble when used.
- They dissolve according to need.
- Acid water: Fast dissolve sometimes, alarmingly so.



Plaster of Paris from Home Depot

Ingredients: Gypsum C.A.S. 1010-14-4,
Limestone C.A.S. 1317-65-3.
Ingredientes: Yeso C.A.S. 1010-14-4,
Piedra Caliza C.A.S. 1317-65-3.



NITROGEN MANAGEMENT

TRICKLE

All this is, is adding water via a “trickle” and letting the water go away via an overflow system.

1/8th” irrigation line TO the system and 1/2 to 3/4” drainpipe from an overflow box or when you’re lucky, a drilled reef-ready tank.

Trickle System

The ONLY way I will *EVER* keep a tank over 40 gallons WITHOUT Trickle would be LANDLORD INTERFERENCE.

Period.

Trickle System

Runs about \$50 soup to nuts.
Starts with a saddle tap or hose
bib adapter, to a 25PSI regulator,
to your 1/8th inch HARD irrigation
line, (Rainbird) and then
“Emitters”

drjohnson.com/atlantatalk for
parts list



Hard, high quality line is imperative



0.5 GPH
BLUE



1 GPH
BLACK



2 GPH
BROWN

IRRIGATION TO TANKS



0.5 GPH
BLUE

1 GPH
BLACK

2 GPH
BROWN

drjohnson.com

Won't Chlorine Kill My Fish?

Nope. At any given time, less than 1% of the tank water contains any chlorine.

Even if the line broke open, the fish would die faster from a plunge to 55 degrees than they would from mixing chlorine into their water.

I know, because this happened.

Twice.

Nitrogen Management - Natural Control

Fish do pee, but *mainly* they LEAK ammonia.
Biological processes break Ammonia down to
Algae Food (Nitrates) in two steps.
You don't have to wait on Equilibrium
Steal it.
Bioseeding.



Sources of Bioseed

1. Filters and gravel in systems at equilibrium
2. Containers at the pet shop. Ha!
3. Your local pond or river.





Natural Bioseeding



“Clear fishy moving water with minimal odor”. Algae present [x] Great.
Muck. 5 gallon bucket. Half muck and half indigenous water. Mix thoroughly. Let sit 20-30 minutes.

Natural Bioseeding

Decant water into “new” system until water is noticeably cloudy. Do not obscure fish.

Run filters hard. Sponges are by far the best. Double aeration. SeaChem Neutral Regulator.

You might even use Big Sponge in any system you are bioseeding at least at first. It's all about water quality at first.



After This:



pH Will try to crash
Water should clarify entirely within
48 hours at the maximum.
If not, that'd be surprising.
But, if cloudy, Big Sponge and
Green Clarifier would win.
Bio benefits STILL realized.



Daylength and You

Lots of fish and tanks don't get enough light.

Brown algae is diagnostic.

Green algae is diagnostic of too LONG. Not too much.

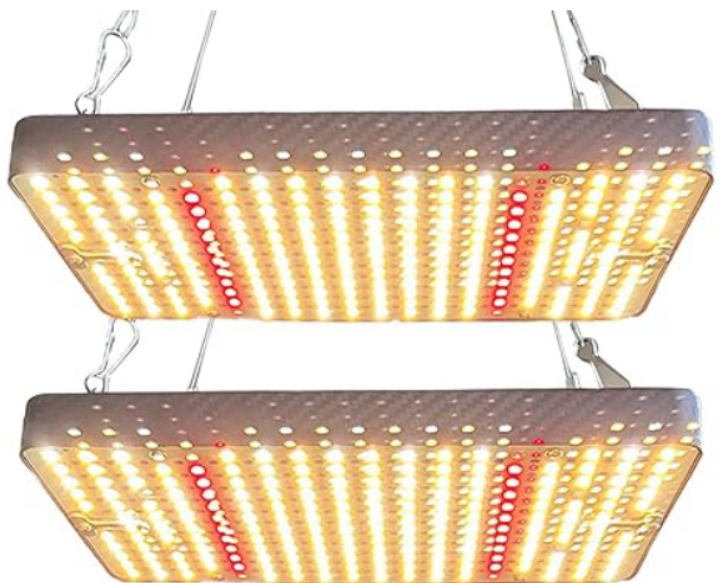
Timing your daylength is the BEST.

Amazon.com - Kasa Timers

Purchased 3 times
Last purchased Jan 26, 2024
Color: 2 * Hanging Grow Light | [View order](#)



2 VIDEOS



Ohtoad Grow Lights for Indoor Plants, 200W UV-IR Full Spectrum LED Plant Grow Light, Hanging Light with On/Off Switch & Daisy Chain for Houseplant

[Visit the Ohtoad Store](#)

4.3 172 ratings

[Search this page](#)

50+ bought in past month

Checking Prices...

Price: **\$31.99** One-Day

[FREE Returns](#)

Buying multiple items? [Go to multi-select](#)

\$31.99

One-Day

[FREE Returns](#)

FREE delivery **Tomorrow, February 10**. Order within **1 hr 28 mins**

Deliver to Johnson - Marietta 30068

In Stock

Buy 2 or more, save 4%
Discount by Amazon [Terms](#)

Qty:

[Buying in bulk?](#)

Add to Cart

[Secure transaction](#)

Sold by **OHTOAD** and Fulfilled by **Amazon**



Kasa Timers

You program them with your phone, it's the easiest on your Wifi system. There's an APP.

You set the Kasa Plug with a "program" or "schedule" to run the lights for AT MOST a 12 hours day. To me, 8 to TEN seems best.

If you're Pro-Class planty-guy you know PER PLANT what's needed. And you know your spectrum lux and lumens. These guys don't need my advice. Hahahaha

Purchased 6 times
Last purchased Jul 20, 2022



Roll over image to zoom in



Kasa Smart Plug Mini 15A, Smart Home Wi-Fi Outlet Works with Alexa, Google Home & IFTTT, No Hub Required, UL Certified, 2.4G WiFi Only, 4-Pack(EP10P4) , White

[Visit the Kasa Smart Store](#)

4.6 16,833 ratings | [Search this page](#)

Amazon's Choice for "kasa smart plug"

7K+ bought in past month

Best Deal

List Price: \$29.99 [Details](#)

Price: **\$24.99** **Overnight**

FREE Returns

You Save: **\$5.00 (17%)**

May be available at a lower price from [other sellers](#), potentially without free Prime shipping.

Buy new: **\$24.99**

Overnight

FREE Returns

FREE delivery Overnight
4 AM - 8 AM on qualifying orders over \$25. Order within **39 mins**

Deliver to Johnson - Marietta 30068

In Stock

Qty:

[Buying in bulk?](#)

Add to Cart

Secure transaction

Ships from and sold by Amazon.com.

Return policy: [Eligible for Return, Refund or Replacement within 30](#)

Quick Word About Heaters

Titanium - Just about the best. They don't explode. They have a good price point. Set via inline-cord controller.

Large Body heaters are basically raw elements in a cage. Excellent price point nowadays. 300W or more carries more water than "they say".
800-1200 Watts can cook fish FAST if they go rogue. GET BACKUP.

Last purchased May 29, 2023

Pattern Name: 800W | [View order](#)

[Set reminder](#)



HITOP 800W Titanium Aquarium Heater - with External Controller Submersible Heater for Large Fish Tank up to 250 Gallon, Shatterproof Heater for Fish or Turtle Saltwater and Fresh Water

[Visit the HITOP Store](#)

4.2 529 ratings

50+ bought in past month

Best Deal

Typical price: \$44.87

Business Price **\$43.57** Two-Day

FREE Returns

You Save: **\$1.30 (2%)**

Coupon: [Apply 10% coupon](#) [Shop items >](#) | [Terms](#)



Buying multiple items? [Go to multi-select](#)



Roll over image to zoom in

VIDEO

\$43.57

Two-Day

FREE Returns

FREE delivery **Sunday, February**

11. Order within **1 hr 43 mins**

Deliver to Johnson - Marietta 30068

In Stock

Qty: 1

[Buying in bulk?](#)

[Add to Cart](#)

[Secure transaction](#)

Sold by **HITOP** and Fulfilled by Amazon.

Return policy: [Eligible for Return, Refund or Replacement within 30 days of receipt](#)





DaToo Submersible Aquarium Heater 500W Titanium Alloy Fish Tank Heater 500 Watt External Temperature Control Thermostat with Digital LED Temperature Display for Salt and Fresh Water

Brand: DaToo

Best Deal

Price: **\$28.99** (\$28.99 / Count) prime

Roll over image to zoom in



Buying multiple items? [Go to multi-select](#)

Size: **500W(60-95 gallon)**

100W(15-25 gallon)

\$25.99
(\$25.99 / Count)

prime

200W(25-40 gallon)

\$26.99
(\$26.99 / Count)

prime

300W(40-60 gallon)

\$27.99
(\$27.99 / Count)

prime

500W(60-95 gallon)

\$28.99 (\$28.99 / Count)

prime

FREE delivery **Tuesday, February 13**. Order within **1 hr 41 mins**

Deliver to Johnson - Marietta 30068



Only 2 left in stock - order soon.

Qty:

[Buying in bulk?](#)

[Add to Cart](#)

Secure transaction

Sold by [WinnerDirect](#) and Fulfilled by Amazon.

Return policy: [Eligible for Return, Refund or Replacement within 30 days of receipt](#)

Add a gift receipt for easy returns

Moron Heaters (More About)

Overheat Protection - An external “thermostat switch” cuts the power to the heater OFF when the water gets too warm. Your back up against a renegade heater.

Dual Small Heaters - The wisdom of two inferior heaters in tandem. You avoid “total catastrophic failure” of heat to a system unless the actual outlet shits the bed.



i Purchased 2 times
Last purchased Jun 21, 2023
Size: Heating

[View order](#) | [Product support](#) | [Set reminder](#)



Roll over image to zoom in



BN-LINK Digital Heat Mat Thermostat Controller for Seed Germination, Reptiles and Breeding Breeding Incubation Greenhouse, 40-108°F, 8.3A 1000W ETL Listed (Heating)

[Visit the BN-LINK Store](#)

4.6 ★★★★★ 18,119 ratings

Amazon's Choice for "reptile thermostat"

4K+ bought in past month

Best Deal

Limited time deal

List Price: \$22.88 [Details](#)

Deal Price: **\$16.14** ✓prime Two-Day

FREE Returns

You Save: **\$6.74 (29%)**

May be available at a lower price from [other sellers](#), potentially without free Prime shipping.

\$16.14

✓prime Two-Day

FREE Returns

FREE delivery **Sunday, February**

11. Order within **1 hr 47 mins**

📍 Deliver to Johnson - Marietta 30068

In Stock

Qty: 1

[Buying in bulk?](#)

Add to Cart

🔒 Secure transaction

Sold by BN-LINK and Fulfilled by Amazon.

Return policy: [Eligible for Return, Refund or Replacement within 30 days of receipt](#)



Clearing Cloudy Water

Olden Days: A hang on
Diatomaceous Pressure
filter.

Since then:

Always Own:

Big Sponge Filter (Lustar,
Aquaneat 125-250g)

Tetra Pond Clarifier (Green
Bottle)



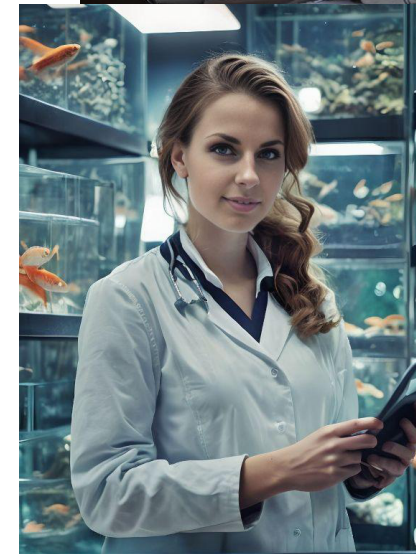
Closing Ideas You Might Like

savingsickfish.org/ask-sara

I uploaded everything I've written about fish.
Well....60% of it.

Now CHATGPT has an app on my web site
"Sara" that uses AI to search *ONLY MY
RESOURCES*

Not some "I found this on the web" amalgam
of bullshit, strobelights and feathers.



Grab Bag of Topics

T or F? Ich Causes White Spot Disease.

T or F? Iodized Salt is Okay for Medicating Freshwater Fish



T or F? Fish Macrophages are practically identical to Oodinium under the microscope.

Which Anti-Caking **Agent** is a Problem?

1. Agent Orange
2. Agent Smith
3. Sodium Aluminosilicate
4. Yellow Prussiate of Soda (YPS)



T or F? Injections of antibiotics
are EASY in Koi.

Amazing Lighting Options

drjohnson.com/ledlighting

T or F? Doc Johnson's email is:
omfg@youreshitting.me

If you share this it's fine but if it turns into a fire hydrant of random questions from people other than you guys, I'll shut it down.