

# Virtual Fisheries Forum 11/05/21 – Preparing Your Stillwater Fishery for Hot & Dry Weather

## **Q&A Session with Kye Jerrom**

Q. What is the best way to control a blue green algae break out on a pool with an outlet?

A. Algae is a problem that needs nipping in the bud before it becomes a serious problem. Blue green algae can be poisonous to animals and people - if we get water samples that ever contain blue green algae, we will send a letter to the club or landowner to ensure they make people aware of it with signage etc. It depends how big your water is, but what I'd certainly be thinking about is the <u>barley straw treatment</u> in February/ March time. That will keep on top of the algae before it takes control. You can also think about dyes, but since your pool has an outlet, this may not be effective. Other good advice is to generally try and limit what is feeding the algae, i.e nutrients entering the water. If you can also plant marginals such as lilies etc, these will also compete for nutrients with the algae.

Q. Our fishery is looking to increase bankside plants? Pros and cons please.

A. I'm really pleased someone asked this question. The only con is that you might get your method feeder or waggler caught in it! It's brilliant for fish in every way possible. It provides shading so keeps the water temperature down, provides shelter from predators and provides somewhere for them to forage. Quite often on fisheries, it's also really important to give fish space to go when they don't want to feed or when they're stressed. One of the problems on modern commercial fisheries is that they don't have enough of this habitat, and they underperform as a consequence. Floating islands are great as are reeds, lilly pads etc. I have never seen an example of a club or fishery adding marginal plants and it not improving the fishing. Fish which are less stressed feed more. One more point to mention however is that your plants must be bio-secure. The last thing you want is to bring an invasive species onto the site. The best way of doing it is to reseed from other plants on the fishery – otherwise you should always seek out a reputable aquatic plants supplier with good credentials.

Q. We have a fishery approx. 3/4 Acre. We added siltex last year in April I know possibly too late but covid restricted earlier entry to the water. We later in July suffered a DO crisis taking almost a month to re-establish the DO level. We were

then experiencing an algae bloom we were advised to add Algaphite at a rate of 500mg per week. Would you advise this on a annual basis to stop algae growth?

A. Siltex is a really good way of reducing organic loading in a fishery. However you've got to be really careful – firstly, it should be applied in the winter, and secondly, it shouldn't be applied to the whole fishery no matter how big it is (approx. 25% area per application). This is because it breaks down all that organic matter and releases nutrients into the fishery, which then provides a food source for algae. So putting siltex in at the wrong time can cause an algal bloom. I'm not aware about the specific product you're using there, but the issue caused by the siltex should calm down if it's applied in the way as described above.

Q. What precautions need to be taken to avoid the spread of KHV?

A. The main thing to bear in mind is that diseases will move with fish and water. So some really basic advice would be to encourage check clean dry and good biosecurity. One of the fisheries I visit has a rule that all nets must be dry before entering the water – this is really good since a dry net is usually a safe net. Other measures could be to provide fishery nets, or net dips – but remember that dips need replenishing on a regular basis to ensure they remain effective – and they need to be used in the correct way by anglers.

Q. Is there a simple way to translate MG/L to % saturation?

A. Generally you could say 1mg/l represents about 10%. But it really fluctuates with temperature. There are some really good online tools and probably a smartphone app which could be more accurate. We tend to only measure in percentage saturation. A good DO meter will show both.

Q. When using barley straw, how long do you use it for? From when to when?

A. You really want it in before the algae will be most active. So if you can get it in at March/ April time, that will be ideal. Barley straw works as the material breaks down, so the key thing is to not to add whole bales, but to break them down into lots of Christmas tree netting type 'sausages' and put them on stakes pinned to the bank – this increases surface area and makes the process more effective. After around 6 weeks this will start breaking down. At this point, you can put in a new once next to it. After 4/5 weeks the old one will have really started to decompose – you can then replace this with a new one and keep cycling like this right until the end of summer or the point at which you don't expect algae to be a problem any longer. Q. Do the dye additives affect the growth of normal sub surface water plants?

A. Yes they do – we offer it as advice and it is very effective. We suggest it because it stops light penetrating to prevent weed growth and algae growth. The good thing about these products is that you can vary the dose depending on what you want to achieve. This is all great – but remember that plants oxygenate, and are also key for habitats which support invertebrates.

Q. If fish are stressed during the summer months, could this lead to deaths months later the following spring?

A. When a fish is stressed, that's when it's most likely to pick up a parasite or disease. A prolonged period of stress could have impacts further down the line. One thing which I've not mentioned so far are diatom blooms which can occur in the winter – unlike algae, diatoms are made from silica which can really impact fish by irritating their gills. This is one to look out for in the winter/early spring.

Q. What effect does river water have on a still water fishery, either one that is connected all the time and after floods?

A. Generally this is a really good thing. If you had an aquarium and things were going wrong, you'd do a water change and this is a perfect analogy with having a river connected. It also keeps temperatures down but this can impact spawning sometimes. Obviously, you may lose fish out of that connection. Floodwater isn't an issue other than in the sense of losing stock – it's bream carp and pike which generally love to swim and which you'll find tucked into little puddles etc after the water recedes. It's key to remember that you won't generally get polluting materials in during a flood event since the dilution is massive.

Q. Can you hire oxygen meters if you suspect you have a problem?

A. The key thing with oxygen meters is to ensure that you're taking readings on a regular basis. There isn't much point in getting a DO meter if you see fish in distress, because by that time it's usually too late. I had a look online before the start of this meeting and it's possible to buy a decent meter for  $\pounds 200 - I'd$ recommend you just bite the bullet and convince the committee to invest in one.

#### Q. Can you recommend an easy to use DO kit?

A. Go for something digital, something you can calibrate, and something you can get spare parts for. There are good systems out there for under £350. It's

worth chatting with the dealers and other angling clubs too to find the one which will best suit your needs.

Q. Can you recommend an aeration system that doesn't require power and ideally not running on generators

A. You can pick up solar powered units for around £2k which is good for general aeration 24/7 or you want to create some period of aerated time. What I would say is that many commercials run aerators 24/7 and that energy is expensive – if you have a DO meter this might make things more economical as you would only need to run the aerator at the times when needed.

## Q. Can siltex be used to control silt build up?

A. Yes, but siltex can only be used to break down organic silt. For example an old fishery with thick black silt would be ideal for siltex application – but it won't work in cases where sand etc has been washed it.

Q. Regarding supplementary feeding for a larger fishery, is there a temperature that it is safe to start feeding and or a temperature to stop feeding?

A. It's a difficult one. We get lots of questions about this and every fishery is different, but I'd say to feed when the fish are active. Thinking from a fisheries management perspective, a very heavily stocked water that sees no anglers through winter, you may want to think about it, whereas an established lake with lower stock levels won't need it. Always err on the side of caution because what isn't eaten will rot.

Q. Hi John & Kye. I have fished a local 1.5 acre millpond for 50 years and have never known a low oxygen issue. What could change to increase the possibility in the future.

A. As an old fishery, organic sediment is very likely to be an issue. When it freezes over in winter this may also cause problems. Stocking could also be a factor – the fact is there may have always been oxygen issues but there's never been enough fish present to make it known about, so be cautious about what you stock.

Q. How quickly should you wash hands or pets exposed to blue green algae and what should you use for cleaning kit etc

A. I can't give you an actual scientific answer, but it's clear that you should wash your hands as soon as possible. Also worth observing pets and making sure to inform the vet they may have been exposed to blue green algae if they get sick.

## Q. Are there any risks to adding Siltex to a fishery?

A. Yes as mentioned in a previous answer. It can be safe however provided you don't apply it to more than a quarter of the fishery at any one time, and that you do it in the winter.

Q. We have a land drain that runs parallel with our Pool – it collects water from a nearby field. When there is heavy rain, it overflows into our pool and some of the water looks "oily" – i.e. Blue & Green. Is this something to worry about and how do we approach the Farmer (one of our neighbours)?

A. If there's something in there which is a pollutant and is impacting your fishery, then it is essentially polluting your fishery. Often petrol, diesel etc can look worse than they are, but if you think it's a concern give the EA a call on the hotline number 0800 807060. Ultimately everyone is human however and they may be more than happy to help. Every angling club needs to get on with their neighbours – just try and do it in an amicable way and maintain a positive relationship that suits all parties.

Q. We have an old estate lake about 23 acres which gets really chocked up with canadian pond weed is there anything we can do to try and control it

A. The best thing to do would be to get in touch with your local EA fisheries team and they will advise. The trouble with a water that size is that things like dyes could become very expensive, so I would probably advise mechanical removal (things like weed rakes etc) to keep on top of it. It's important to bear in mind the problems associated with disturbing silt however.

#### Q. Kye mentioned barley straw extract. Surely that is now on the banned use list?

A. To add to discussion on the use of barley straw. HSE Biocides have restricted the use of some compounds derived by "processing" a natural substrate, meaning that barley straw is still allowed, but the extract is not. The Biocides approval was revoked on 19/11/2019. However, we now operate our own Biocides regime outside the EU and it may be that this decision may change in the future.

Barley straw is a better option than the extract. Straw rots, producing hydrogen peroxide over a long period of time, and also habitat for lots of

bacteria, fungi, and insects. The extract is just like a chemical treatment, without the biodiversity benefits.

There also bacterial brews offered by <u>https://www.dyofix.co.uk/product/byofix-beneficial-bacteria/</u> and <u>https://www.algaeweedcontrol.com/algae-ecoklear/</u> are worthwhile alternatives to barley straw in smallish lakes and ponds.

Q. What are your thoughts on floating reed beds/ islands in fisheries? Are they effective at reducing nutrients and protecting fish in the summer?

A. They are very effective. Good refuge for fish, good shading. It's important to anchor them in well however as they can blow around easily.

Q. What is the ideal frequency for changing net dip?

A. This depends which net dip you've got. Check the instructions that came with the product and it should advise. I would guess every 2 days. It's also worth noting that nets often need to be submerged for 15 minutes or more, but again this will depend on the product in question.

Q. How important are rotifers to pond health?

A. It's all about creating a natural ecosystem. You can't have fish without inverts. Can't have plants without algae. You can't have one without the other. A good fishery is a balanced fishery.

Q. Who is responsible for dip nets (as our khv pools are rented of the Canal and River Trust) is it the club or owners?

A. I would have a chat with John Ellis AT Canal and River Trust about this and he will advise.

Q. If you have a large lake do you need to check the oxygen level in several areas?

A. Generally you should be checking it in at least 4 different locations. The really good one to do is check the windward end. Don't worry about it too much through until you think there's a problem. Do at least a couple though and if in doubt follow the wind.

Q. How would you promote natural life in a lake for natural food for the stock that's present in the lake?

A. It's all about habitat. If you can improve habitat you'll improve the fishery.

Q. Do spring fed waters suffer any more from or differently from stream fed or enclosed still waters?

A. Spring water is really good because there's a constant flow and constant temperature, so they would potentially suffer less.

Q. Any tips to discourage Canada Geese on a public park lake?

A. Speak to the local authority. You can do things to manage the population, but it's key to stay up to date with the latest guidance. See this factsheet from the RSPCA <u>here</u>. You may also want to contact an <u>Angling Trust Fisheries</u> <u>Management Adviser</u>

Q. We have a sailing club that regularly removes weed from one of our large lakes. Can this have negative impacts on fish and contribute to algal blooms?

A. If it's done in the summer and is disturbing silt then it can cause a problem. What I'd probably ask them to do is to record the oxygen level before and after so as to rule out that they aren't causing an issue.

Q. you said to add barley straw every six weeks and that old straw needs removing a few weeks after the new has gone in. Two questions, do you weigh down the bags, the pictures suggest not, but I have had others say you should. Secondly volume of straw to acreage or per 1000 litres, any guidelines?

A. It's always best being kept afloat. You can do this with plastic bottles or similar – also worth pinning it to the bank with a post etc. Put in as much as you can with the bankside space you can access. Bear in mind that it's not so effective in lakes over an acre.



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