From: Dave Malinowski
To: <u>Aquaculture2018 - ARS</u>

Subject: Re: USDA asking for input to their research, extension and education programs

Date: Tuesday, August 28, 2018 3:50:05 AM

If you have been too busy farming to participate in the webinars, you can still send your comments and ideas to the agencies. When you do, please consider these five questions when composing an email:

1. What is your business?

Aquaculture and poultry hobby farm.

- 2. What is the largest constraint to growth and expansion of your sector of aquaculture?
- State and Federal regulations.
 - Lack of available clam seed. Regulations all but inhibit receiving clam seed from out of state (Florida) due to additional regulations. This makes the seed twice as expensive as instate seed. Also forces out of state hatcheries to go through additional testing which most hatcheries neither have the time nor personnel to accomplish. Smaller farmers can not adhere to regulations with sending clams from Florida to out of state hatcheries due to expense and with no guarantee the brood stock they send will meet with success.
 - Limited number of hatcheries in the state of Florida (10). When natural tragedies occur (hurricanes...) or hatchery in system break downs or infestations often result in complete loss of clams. Buying additional clam seed from the hatcheries are strained and often smaller farmers can not find any available seed to purchase. The state will confiscate leases (leases can cost as much at 5-20k) if the farmer does not plant 100,000 clam seed per acre each year. (there are two acres per lease) This standard is not applied to all. A representative between the farmers and the Department of Aquaculture said to give up the lease so they will leave you alone. Not acceptable if the farmer only has one lease. A representative from the Department of Aquaculture said to lie next time when filling out the forms.
 - Audits are filled with inaccuracies. The forms do not account for inclement weather, death, growing cycle, etc which comes from lack of knowledge. It is said to report the figures they want, regardless if true or not.
 - If the aquaculture underwater leases are owned by the state and leased to the individual than the state should maintain the markers. The state puts the responsibility of maintaining the leases on the person leasing. Civilian GPS have an offset put in. Markers by an individual can be meters off. The state should come through and ensure the accuracy and that each lease corner is properly marked. At present the state is an extremely poor proprietor.
- Civil servants lack of knowledge of tradecraft and species in aquaculture. Civil servants

maybe do not understand that the current clams planted and raised in the State of Florida are not native inhabitants of Florida. The clams come from the North East. One hatchery expressed that it might be necessary to reintroduce native stock from the North East. Constant in breeding could lead to premature death? No scientific data was presented to back up this claim.

- Civil servants abuse of power, even when confronted, nothing is done. Confiscation of clams and thrown in a land fill even when clam police investigate and prove the person the clams were confiscated from was the owner. The confiscation of clams often include the materials in which clams are housed in. This additional confiscation of material could add an additional loss in the hundreds of dollars. A farmer wholly dependant on clam sales to wholesalers may not be able to recover from such losses.
 Small farmers have cited some of these costs as to why they were leaving the aquaculture farming.
- Civil servants reprisals, enough said.
- Films and the self licking ice cream cone. Films which aquaculture personnel are forced to watch each year to get certified seem more of a justification of the civil servants job than to educate anyone in aquaculture farming. The films do not have much relevance often relying on what some other states are doing in Aquaculture. This is an excellent platform in showing TTPs (tactics, techniques and procedures) that other clam farmers are using in state which could be beneficial. Instead the film compares clams to milk. If you leave them out in the sun, they will spoil. Honestly! Do you think a wholesaler will buy dead clams? Farmers try to harvest their clams and turn them over to the wholesaler as quickly as possible. The farmers use techniques to ensure their crop does not spoil on the boat. The industry does not need additional regulations as to what each boat must have.

1. What do you see as the greatest short-term, 1-4 years, research and extension needs?

Introduction of a hardy clam that can resist hatchery infestation, grow in warm water, grow in low salinity, resistant to predators, etc.

Hire older, aquaculture farmers/wholesalers to the Department of Aquaculture. Relocate offices to areas which deal in aquaculture. Lack of knowledge of Aquaculture and how the industry is progressing is promoting inaccuracies in reporting and tensions between the state and local farmers.

A review board to reduce state and federal regulations. There is now talk of having the Department of Aquaculture have stewardship over personally owned dockage and buildings used in aquaculture. A dock can be in disrepair for example from a storm with a high probability of someone getting hurt and the owner will not be allowed to fix the issue unless there is a letter of consent from the Department of Aquaculture. Not to

mention, new construction needs approval from the EPA.

2. Over the longer term, what do you see as the greatest research and extension needs over the next 5-10 years?

This is repeated because it should be taken seriously. What will happen is, 'nothing'. People will clap each other on the back saying what a great job they are doing. In reality nothing will change.

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3. What is most effective communication strategy to reach and inform farmers of new solutions to problems or better technologies?

Ask farmers for their TTPs. Ask them if they know a better way to raise clams, reduce bacterial growth in hatcheries, etc. Have an open forum. Replace the mandatory movie with a think tank session. Talk about the successes and how farmers came about them.

Technology. There are a lot of issues aquaculture farmers and the department of aquaculture encounter. A proposal set forth in this area was to incorporate a camera/radar system which could monitor the clam leases, reefs set aside for harvesting oysters, restricted areas, whale migration, theft of clams, etc. The system is comprised of a radar, normal light camera, low light camera and infrared camera, with a laser targeting system. The system is already in use in seven ports along the Gulf of Mexico. The system does not require a technician to run and can be used/programmed remotely. Anyone could log into the system to review old data. In Afghanistan these systems are hung in gondolas underneath an aerostat (blimp). The radar can be

programmed to scan only certain areas, for example the leases, reefs or 360 degrees. The system can be mounted on a ten foot tower. The server for this system can be set up in a closet and can be programmed with alarms to inform local police of any pending issues. The radar/cameras can go out to curvature of the earth 14 miles.

For example, the radar can monitor the clam leases identifying each lease. If someone goes onto a lease the radar will spot it, a camera is slaved to the radar and can take video or a camera shot. If someone is on the clam leases at night (illegal) the system can use its low visibility camera or use its laser targeting system to illuminate the boats numbers and then take a picture. Rather than pursue the thieves on the water the radar can track the thieves to the boat and police can be waiting.

If a boat is in distress, this system can identify and direct rescue efforts.

Reefs that have been targeted for oyster regrowth can be watched so that anyone who tries to harvest oysters illegally will be caught.

This system can be accessed remotely from a personal computer where the farmer can see any weather developments prior to going out.

If clams are missing from a lease, a farmer could access historical records to determine who and when someone was on the lease in question.

NAP insurance can determine if clams or oysters were planted and harvested. There will be a recorded recorded. Thus no inspector has to go out with farmers to watch shellfish being planted or harvested. NAP can have visual record of inclement weather, wave height (this radar was originally designed to count waves), winds, etc.

This system can track and direct aircraft, be helpful in counter drug operations, capsized boats, ditched airplanes, perform visual reconnoiter of current weather, watch legal and illegal aquaculture activities, marine mammal migrations, etc.

In some of the more populated and harvested areas, this system can be instrumental for farmers, state and federal officials to maintain and monitor aquaculture activities. The system is not too expensive.

I have worked on these systems and been trained as an aerostat engineer. It is amazing as to what can be done with these systems. If concerned about big brother watching, than access to the system can be limited and restrictions can be put on the radar and cameras from monitoring certain areas, (beaches, houses, etc.). I would be more than happy to introduce you to the company that produces this system and, 'no' I am not a

sales representative for the company. David Malinowski <u>damalinows@hotmail.com</u> 352 543 9411

From: Rocco, Serina <Serina.Rocco@freshfromflorida.com>

Sent: Friday, August 24, 2018 10:28 AM

Subject: FW: USDA asking for input to their research, extension and education programs

See below

*** you are receiving this as an active entry in our certification program. Any questions about the email, please direct to the NAA. Any concerns over receiving email in general from us, please let me know and I can assist.

Serina Rocco

Environmental Administrator Division of Aquaculture

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From: East Coast Shellfish Growers Association < ECSGA@LISTSERV.URI.EDU on behalf of

National Aquaculture Association < naa@THENAA.NET >

Sent: Friday, August 24, 2018 8:32:17 AM

To: ECSGA@LISTSERV.URI.EDU

Subject: USDA asking for input to their research, extension and education programs

Over the last two months the U.S. Department of Agriculture's National Institute of Food (NIFA) and Agriculture and Agricultural Research Service (ARS) have been holding webinars specific to aquaculture. They are seeking your input on their research, extension and education programs to inform programmatic decisions at their respective agencies and the development of the next five-year ARS Action Plan. Prior topics have been Salmonids, Catfish, Freshwater Finfish, General Aquaculture, Molluscan Aquaculture and Production Systems.

If you have been too busy farming to participate in the webinars, you can still send your comments and ideas to the agencies. When you do, please consider these five questions when composing an email:

- 1. What is your business?
- 2. What is the largest constraint to growth and expansion of your sector of aquaculture?
- 3. What do you see as the greatest short-term, 1-4 years, research and extension needs?
- 4. Over the longer term, what do you see as the greatest research and extension needs over the next 5-10 years?
- 5. What is most effective communication strategy to reach and inform farmers of new solutions to problems or better technologies?

The agencies would greatly appreciate receiving written feedback for USDA ARS and NIFA research, extension and education programs at Aquaculture2018@ars.usda.gov through August 31, 2018.

All the best, Paul

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