Percentage Yields from Fish Farming - 23 Dec 2009

The percentage of meat yielded by all animals grown for meat is the most important single concern of the farmer and producer. In the next few lines I will try to show what I now think and believe as a result of all my years of experience.

"A one percent increase in fillet yield of catfish would result in over 5 million additional pounds of fillets per year given current whole-catfish production in the U.S."

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&
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This statement about the value placed on a one percent increase in fillet for catfish can now be applied to the production of tilapia.

I have increased the amount of skinless boneless fillet of pennyfish tilapia from 24 percent (a verified number from Dr Hickling) in 1963 to 50 percent in 2009.

That is an increase of 26 percent from the yield in 1963 to a yield of 50 percent by 2009 (a period of 46 years, but the breeding for the improved yield body form did not begin until 1981 which makes the improvement increase occur over a 28 year period).

This improvement of the pennyfish yield of skinless boneless fillet makes the pennyfish the most improved Animal on the Earth and possibly the Universe!**

I started this program in 1970 when the pennyfish hybrid only yielded 24 percent of skinless boneless fillet and I have been able to selectively change the ratio of skinless boneless fillet

from 24 percent gradually to 26 percent then 30 percent then 34 percent and a small improvement every year to the Current ratio of 50 percent in this year *2009*.

This increase, if measured against the improvement in all other animals on Earth by selective genetics is a clear winner.

The time it took to follow the process of selecting enough pennyfish to improve a single characteristic that is controlled by the genes is "naturally" severely influenced by the length of time each generation takes.

A generation is time is the number of days it takes for a one day old fertilised egg to become a breeding adult that can pass on the genetic material to a new egg. Under the controlled conditions I set up, this time period was about 90 days which if divided into a year (365 days/ 90 days=4 .)

This means that with a fish like Tilapia Mozambique I was able interfere in this process by selecting for any trait I wanted up to four times each year. It was like having a jet booster for selectively finding useful traits such as improving the percentage of fillet or or aesthetically pleasing traits such as colour. I could actually measure or see changes over a few months or years. I could see colour improvements in the best selected breeders and continue the written program for improving that program.

There is a sort of analogy that helps to understand this increase in speed of creating genetically controlled change. Say you have a team of track runners that race in a relay race. The team that has the highest average speed for the relay distance should be able to win most of the time. You as a coach find one runner that literally moves a second or so faster over the distance being raced. The probability of the team he is racing with winning the over long run is increased by the amount the average for the total speed of he racers. Then imagine that you could find 3 runners that could run as fast as the other on then the total average speed over the distance would increase the number of races that you team won.

That is in a way what happens with a good breeder for speed such as t. Mozambique to breed , then if all of the other research director were working with tilapia
that had an average time between generations of 250 days instead of 60 days, then the

Mozambique team would have a distinct advantage because the Mozambique breeder would be able to pass the baton at least 6 times a year, and the nilotica breeder would only be able to pass the Baton only 1.5 times a year.

This makes the Mozambique breeder four times as fast in making changes because the Mozambique breeder has a baton transfer (gene transfer) that happens four times for every (gene transfer) that can be made with nilotica.

It might appear that the Mozambique breeder is somehow cheating. Or misrepresenting what he has achieved.

The Mozambique breeder, of course is cheating, because, he has recruited a fish to breed that runs four time faster than the nilotica breeders choice. But the only way he could be called a cheater would be if there were a real contest where the rules require equal circumstances between the two types of breeders

The poor nilotica breeder is seeing the results which is that the Mozambique is making three trips around the track to everyone that the nilotca makes. So the changes keep coming faster than the nilotica can dream.

Sincerely,

Mike Sipe

P.S. As to my intellect: I was one of the first members of the Mensa Society in the United States. The society is dedicated to bring the top minds together for discussion and analysis by required proof of an I.Q. test that shows them to be within the top 2 percent of the population. I joined Mensa international and helped start the the first chapter in San Antonio Texas and 3

years later The Mensa Chapter In Gainesville, Florida.

My name was published in the original list of Members of Mensa in the U.S. I gained a great deal of self confidence from meeting hundreds of members from all walks of life and being able to chair many sessions, without feeling challenged, by the other people in the group.

So I now, at the age of 70. know that I have the knowledge, experience and the intellectual capability to be of considerable assistance and help to any organisation or person interested in fish production and in getting my help.

So, Lets Get it done!