

EVALUATING SPAWNING INDUCTION IN CHANNEL CATFISH *Ictalurus punctatus* USING sGnRH α AND DOMPERIDONE COMPOUNDS

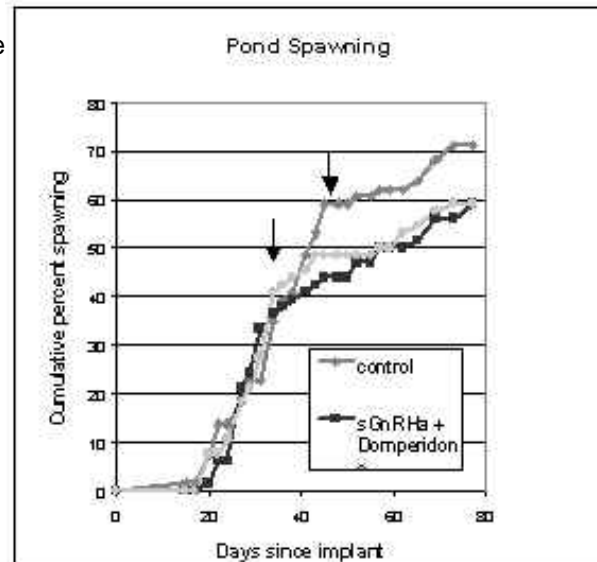
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Spawning success of channel catfish in ponds generally ranges from 30-50 %. This low spawning rate requires the maintenance of a large surplus of broodfish. To improve spawning success and predictability of spawning we have undertaken studies of induced spawning in the pond environment. Previous work showed that a combination of gonadotropin releasing hormone and dopamine antagonist rapidly induces final maturation and ovulation of channel catfish in spawning cages. To extend this work to pond spawning we treated channel catfish with slow release implants containing gonadotropin releasing hormone with or without a dopamine antagonist 3 weeks prior to the beginning of natural spawning.

On April 20 implants containing sGnRH α , sGnRH α and domperidone or placebo implants were intramuscularly (i.m.) administered to channel catfish females. All males were treated with sGnRH α implants. These fish were stocked into 0.04 hectare ponds, 22 females and 12 males to a pond, all treatments were maintained in triplicate.

There were no differences between the treatment groups for spawning rate, partly due to wide variation between replicate treatments. Nevertheless, the rise in cumulative percent spawning continued longer in the control group which had the highest mean spawning rate of the three treatments. The increase in percent spawning for both sGnRH α and sGnRH α +domperidone treated females slowed earlier than in the control treated females (see arrows). Treatment with slow release implants of sGnRH α and sGnRH α + domperidone appears to have sped the occurrence of spawning but not increased the percent success. Future work will focus on the rates of delivery of induction compounds.



Literature References which you can use to guide you in the use of Ovaplant:

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