

# Larry Warnberg

Hello Derek:

Thanks for the opportunity to comment on the Draft SEIS. It is encouraging that Ecology is raising serious questions about the adverse impacts of controlling burrowing shrimp with imidicloprid. I hope the application submitted by the Growers' Association will be denied.

There should be several corrections to the Draft SEIS, if it is accepted. I found no mention in the document that the burrowing shrimp are a native, foundation, keystone species in the estuaries, while the shellfish are invasive exotic varieties. Shrimp populations have been declining for at least a decade, possibly due to an introduced parasite. Loss of shrimp will have a devastating impact on the ecosystem. Killing shrimp with a pesticide to protect a non-native crop makes no sense. If/when shrimp get listed as Threatened or Endangered the issue of pesticide use will be moot. Contrary to claims by Growers that shrimp continue to be a threat to their crops, evidence presented by scientist John Chapman refutes their claim.

The Growers want to deliver granular imidicloprid by boat during high tide, which would lead to rapid dispersal through the estuary with adverse effects on many non-target organisms. There is no mention of dry times at low tide, buffer zones, or efforts to minimize drift off-site.

The Growers have inflated the threat from burrowing shrimp, failed to comply with a Memorandum Of Agreement with Ecology to implement an IPM plan, failed for several years to conduct annual meetings on IPM strategies with Agency personnel and stakeholders, while insisting that pesticide control of shrimp is their only option. Their hired scientist Kim Patten defended this point:

"In his conclusion, Dr. Patten states that no non-chemical approach is viable as a stand-alone treatment for burrowing shrimp due to logistics, cost, low efficacy, and/or impacts to non-target species. WGHOGA anticipates technical discussions with Ecology to evaluate whether and which non-chemical controls should be included as part of an IPM strategy approach to controlling burrowing shrimp. Within such an IPM approach, non-chemical methods might be proposed as stand-alone controls in particular locations or conditions, or as adjuncts to imidacloprid applications designed to improve the overall effectiveness of burrowing shrimp control."

Patten's opinions should be taken with a grain or two of salt. He is not a shellfish farmer. His objectivity must be questioned after it was revealed recently that he accepted money from the Growers, and received Censure from the Washington State Ethics Commission. The Growers rely heavily on his research, which should be dismissed as biased and unreliable. I farmed oysters successfully in Willapa Bay for 25 years without using pesticide. There are many others growing shellfish with non-chemical methods, including the 2 largest companies operating in the 2 estuaries, Coast and Taylor, which opted out of the current permit application. Only a few small Growers on the entire West Coast persist with efforts to obtain a pesticide permit. If Ecology denies their application, viable alternatives exist, the industry will continue, and sustainable organic aquaculture may finally be possible.

Naturally, Larry Warnberg