Aquaculture Education, Training and Aquaculture Expansion

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I’ve attended two conferences this year that make it clear that commercial aquaculture is finding it difficult to hire the skilled labor needed to support a growing global aquaculture sector. In April, at the U.S. Soybean Export Council’s (USSEC) Fourth Aquaculture Investment workshop in Miami, Florida and in May in Jeju, South Korea, at the AquaForum portion of the World Aquaculture Society annual meeting, this lack of skilled labor was highlighted often as a problem.

It was a pleasure to be invited to USSEC’s Fourth Aquaculture Investment workshop, hosted by my friend Dr. Daniel Benetti at the University of Miami - RSMAS. This was a two-day workshop that effectively brought together some of the major stakeholders associated with commercial aquaculture development in the Americas. The program combined updates from various industry production and support sectors, along with several panel discussions, populated with major industry producers. These panel discussions provided unique and timely insight into issues identified by industry that currently impact the pace of aquaculture expansion in the region. Some of the major limitations identified by these commercial producers, in no particular order, can be grouped into disease, nutrition and FCR, hatchery technologies and capacity, market development, breeding and genetics, finance, and technological barriers impeding the transition from traditional aquaculture to “modern” production systems.

What caught my particular attention, relevant to this article, was the most common issue identified by all industry panelists: the lack of an available and qualified skilled workforce. I took a lot of notes during the panel discussions, and this theme was by far the most pronounced. My notes include descriptors such as: insufficient human capital development, lack of industrially skilled workers, insufficient trained workforce pool, insufficient training programs incorporating emerging technologies, and so on.

I was already well aware of this dramatic lack of skilled labor because one of my services to industry is helping identify qualified individuals to fill critical staffing positions at new and expanding aquaculture companies. Currently I have over a dozen positions that have been open for over a year, with yet a single individual, qualified and available, to fill them. What caught me by surprise me was the general agreement and severity of this issue voiced by the USSEC regional panelists.

About a month later, in May, the World Aquaculture Society held its first AquaForum in conjunction with the WAS annual meeting in Jeju, South Korea. The WA15 AquaForum was created to benefit industry professionals during the WA15 conference and exhibition, inviting Asian aquaculture producers, suppliers and other industry stakeholders. Activities included specific topical industry sessions, facilitated workshops, roundtable discussions, simultaneous translations, designated meeting spaces, farm tours, etc. Given the location of this venue, the focus of the WA15 AquaForum targeted the most important industry issues affecting key Asian Pacific aquaculture-producing countries.

In similar fashion to the USSEC meeting, the Aquaforum program was comprised of topical experts providing targeted sector updates, followed by open panel discussions. Again, similar themes emerged as in the USSEC program affecting sector expansion, though this time representing Southeast Asia. However, I was again surprised by the clear and resounding message from the regional industry stakeholders, of the prioritized clear lack of skilled labor to keep up with the rate of aquaculture expansion in the region, with an emphasis on transitioning from traditional to emerging technologies.

As an emerging agricultural sector, combined with rapidly emerging technologies, it should not be a surprise that there is a strong demand for skilled labor in aquaculture. What is indeed surprising is the degree to which this issue is being identified in some of the major regions of aquaculture expansion in the world. As an industry, we are most effective when we unite to address sector issues holistically, integrating governmental, industrial, and academic stakeholders. I believe the message is being sent by industry that we need to holistically enhance aquaculture education and training opportunities to meet current and future labor needs.

Are we listening?

EDITORS NOTE: Michael Schwarz is an Aquaculture Specialist at Virginia Tech and a Past-President of WAS.