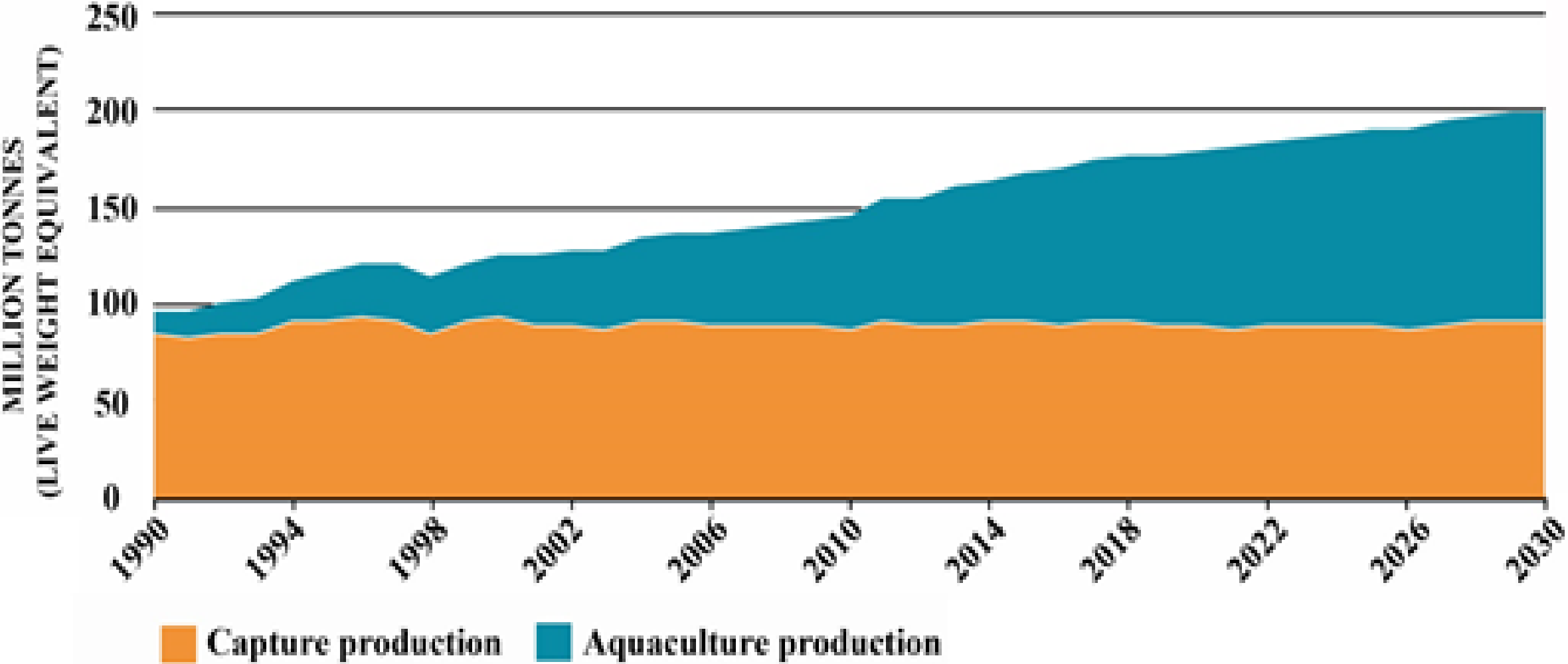


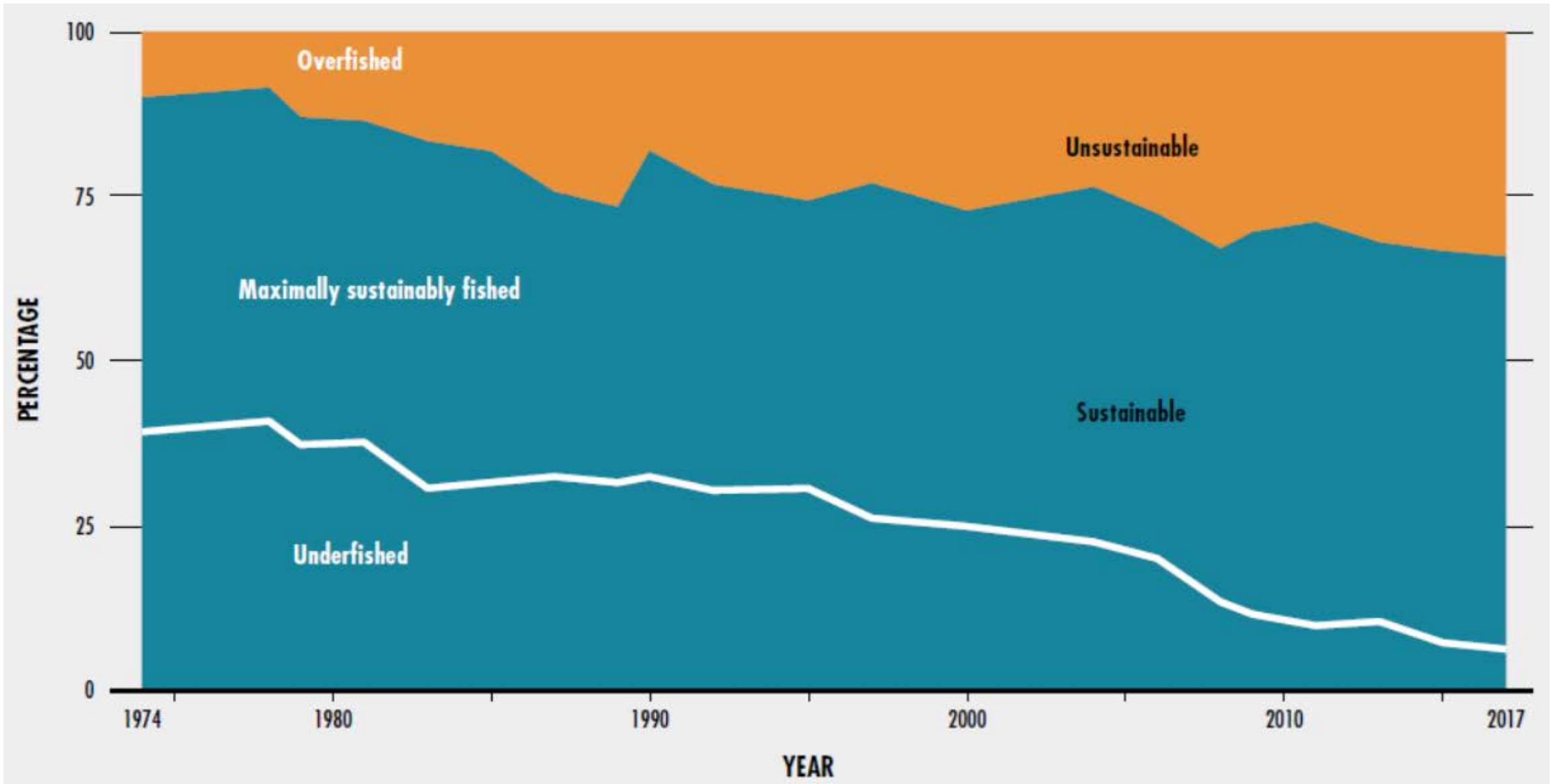
Importance of Aquaculture; Impact on US Seafood Supply and Economy

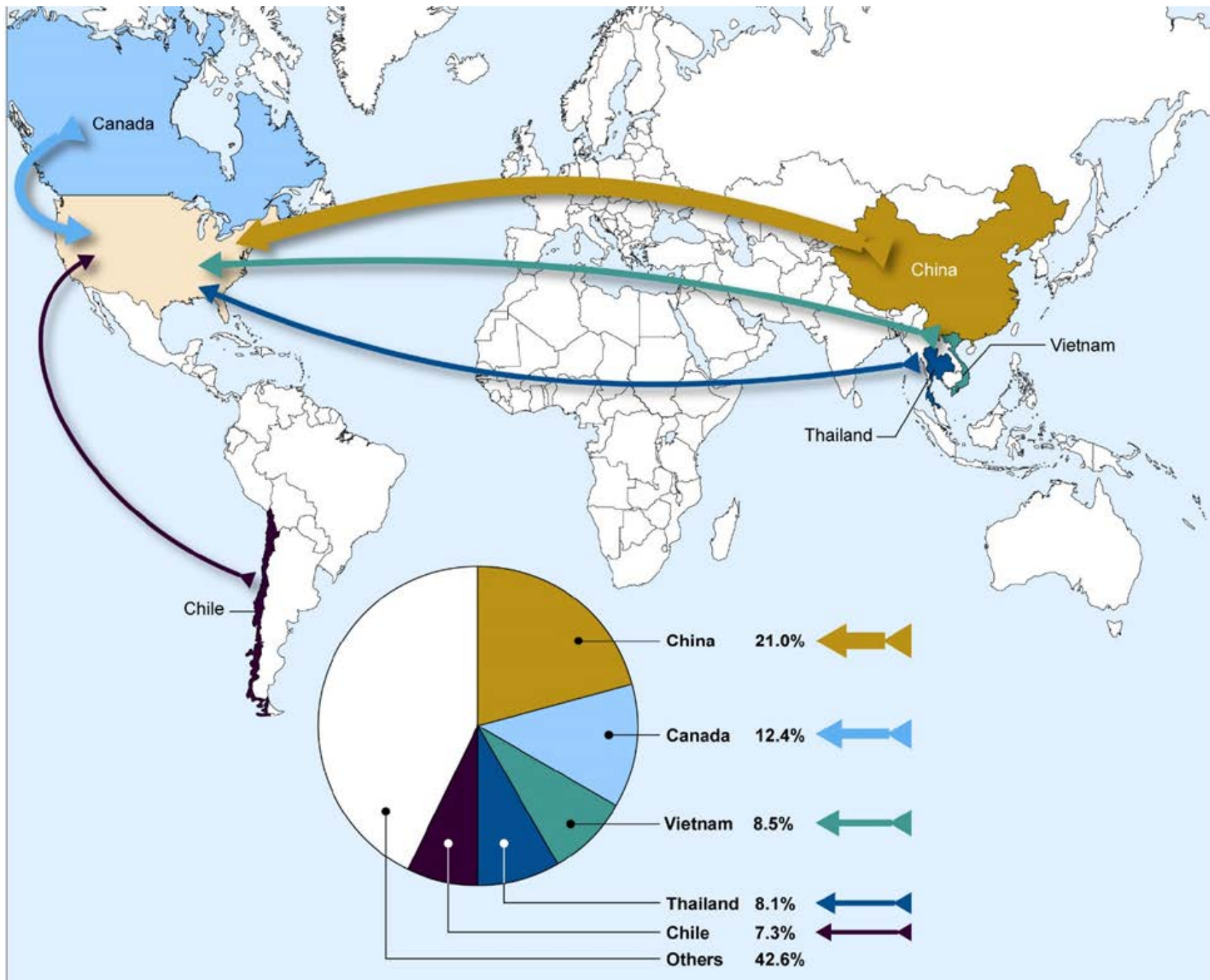


Global Marine and Freshwater Seafood Production Projected to 2030; **Global Aquaculture Supplies 50%**



Status of Global Fish Stocks, 35% Over-fished, 6 % Under-fished, 59% at Maximum Sustainable Levels





Bulk of US
seafood supply
is imported

90% of US seafood
imported,
65% caught or grown
overseas
25% of US wild caught
processed overseas and
re-imported to US

US Import Trade Deficit of \$617 billion/yr.
 Seafood = 80% of Food Deficit at \$16 billion/yr.



Intensification in Aquaculture Productivity from 1960 to 2020.

SYSTEM	Yield kg/ha	Feed kg/ha-d	Aeration KW/ha	Type (g-C/m² d)	VSS mg/l	Timeline
Extensive	1,124-2,247	11-34	Wind	Algal (0.5-1)	10-20	1960
Semi- Intensive	4,494-6,742	56-112	1.8-3.7	Algal (2-3)	50-100	1980
Intensive pond	11,235-13,483	112-168	11-22	Mixed (3-4)	100+	1990
PAS/SP	16,854-21,348	225-280	13--18	Algal (6-12)	50-100	2000
Super nitrifying	44,943+	1,123	92-111	Nitrification	300-400	2006
Super heterotrophic	44,943+	1,123/674	111-148	Heterotrophic	300-400	2006
Rapid Removal	34,000-50,000	1,685	123-140	Intensive Nitrification	70-80	2020

Future Presentations

1) MU extension resources and website

<https://extension.missouri.edu/programs/aquaculture-extension>

2) Aquaculture in the Midwest; Economic Opportunity for Missouri Farmers?

3) Aquaculture Technology; Ponds to Super-Intensive Production