Intensification and Diversification of Wheat Cropping Systems
W. L. Pan, Washington State University

The 4 million ha REACCH region is 60% wheat and 30% fallow. Crop system (CS) diversification (legumes, oilseeds) and intensification (fallow replacement, more winter cropping) can mitigate GHG emissions, increase C fixation into food, feed and fuel, increase soil C sequestration, improve water and N cycling and use, reduce petroleum use, and improve the health of soils and wheat.

Oilseed and legume adaptation increases CS flexibility to shifts in climate, production economics, pests and societal demand for crops and environmental services. Successful alternative CS adaptation also requires optimization of these same drivers over space and time. REACCH research and stakeholder experimentation, proactive outreach and policy will facilitate CS intensification and diversification tailored to each AEZ.

Timeframe for widespread change in cropping systems is 5-20 years.

Figure: CS research focuses on rotational C, N, H₂O cycling, inputs, outputs

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