

OILSEED FEEDSTOCKS

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Oilseeds

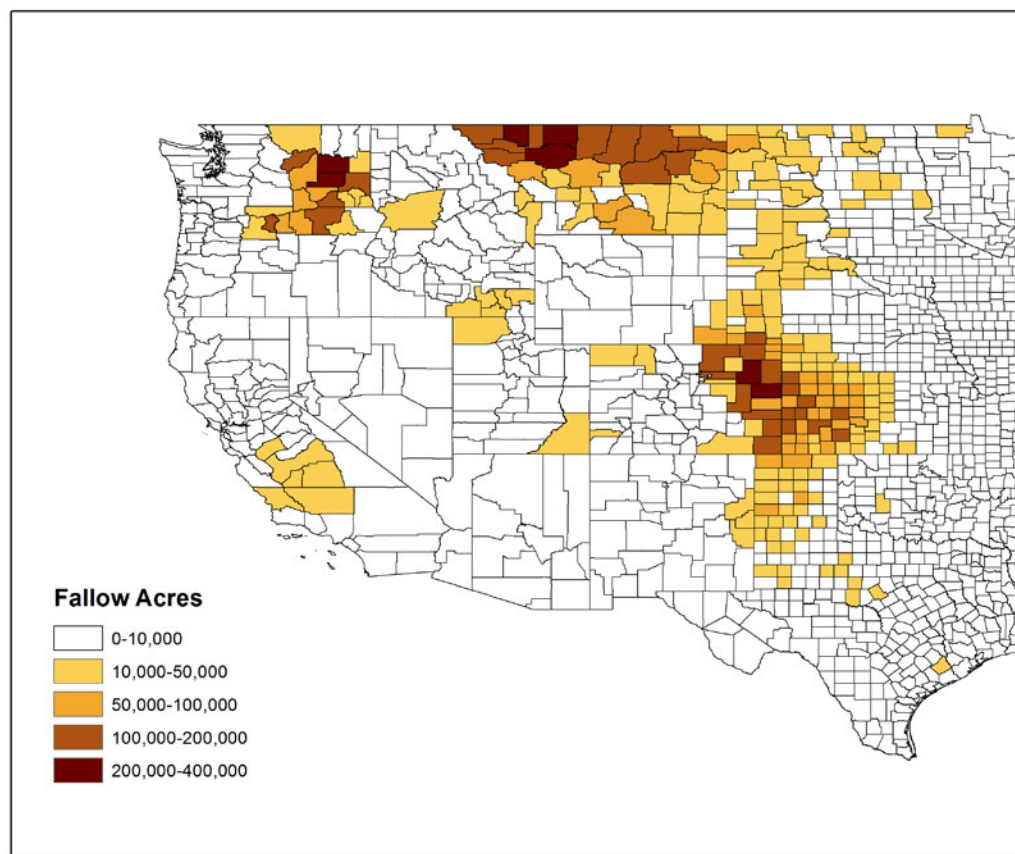


Key questions

- Are these crops economically viable for the farmer to produce?
 - At a price low enough for industry to be viable?
- Will farmers grow these crops?
- Impacts on natural resources and environment
- Long-term effects on agricultural productivity and economic viability

More Efficient Land Use

- Fallow
- Rotational benefits
- Double-crop or Relay-crop



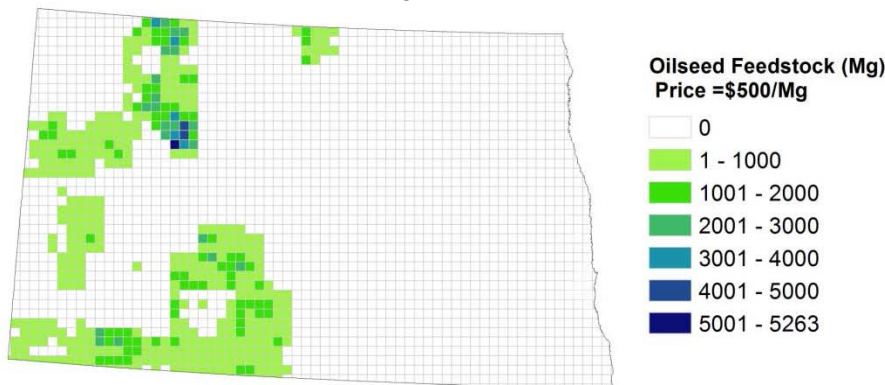
Farm-level profitability

- Agronomics – oilseed productivity, input use, rotational impacts, climate and soil effects
- Local demand -> reduce transport cost -> retain oilseed value at the farm level

Oilseed Supply Analysis

Scenario: Oilseed Price = \$500/Mg
298,000 Mg Oilseed
131,000 Mg Oil (35.4 million gallons)
64,400 Mg Jet Fuel (20.5 million gallons)

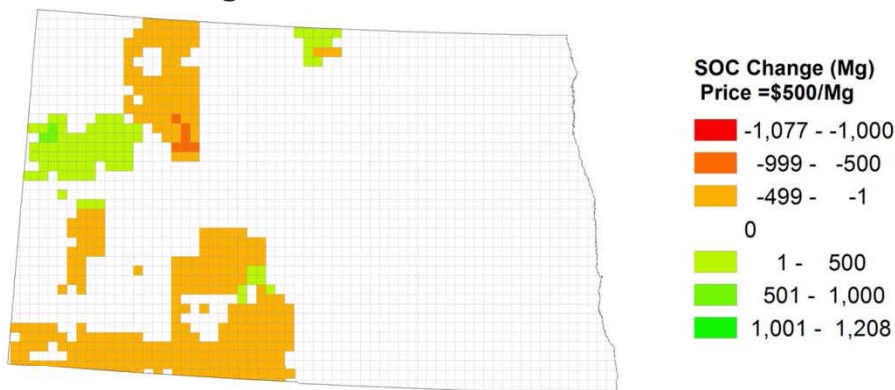
Oilseed Quantity



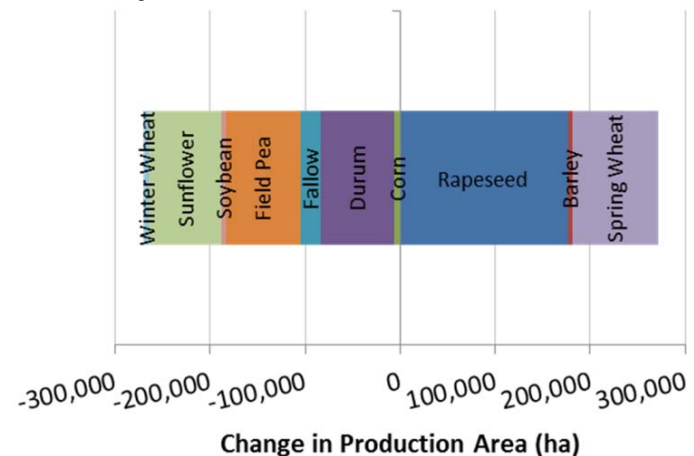
Soil Erosion (water)



Soil Organic Carbon

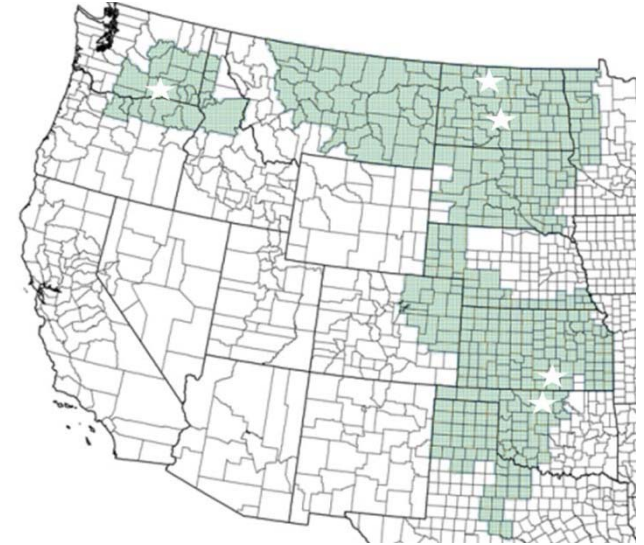


Crop Area

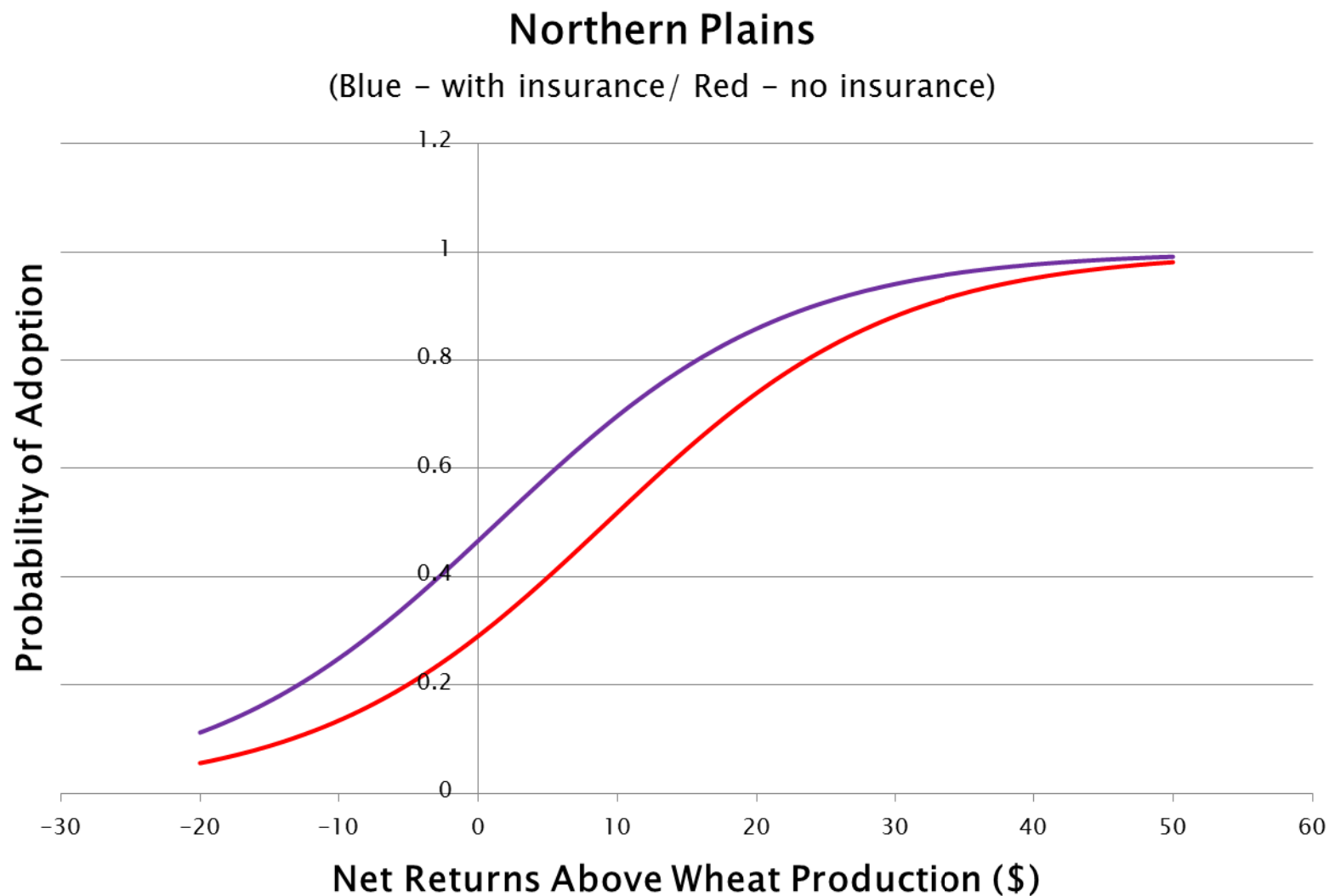


Farmer adoption

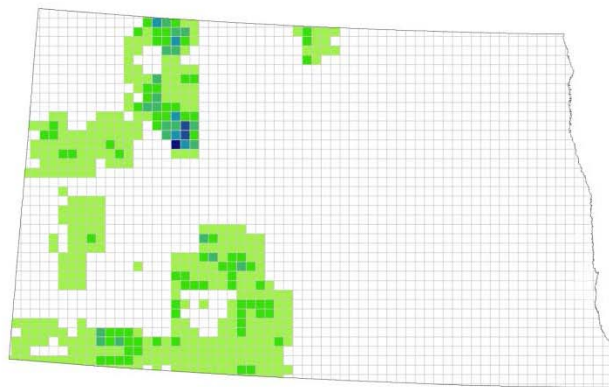
- Changing behavior
 - Uncertainty – how to grow, production potential, input needs, marketing
 - Risk - variability of returns
 - Investment – capital changes
 - Profitability relative to existing crops



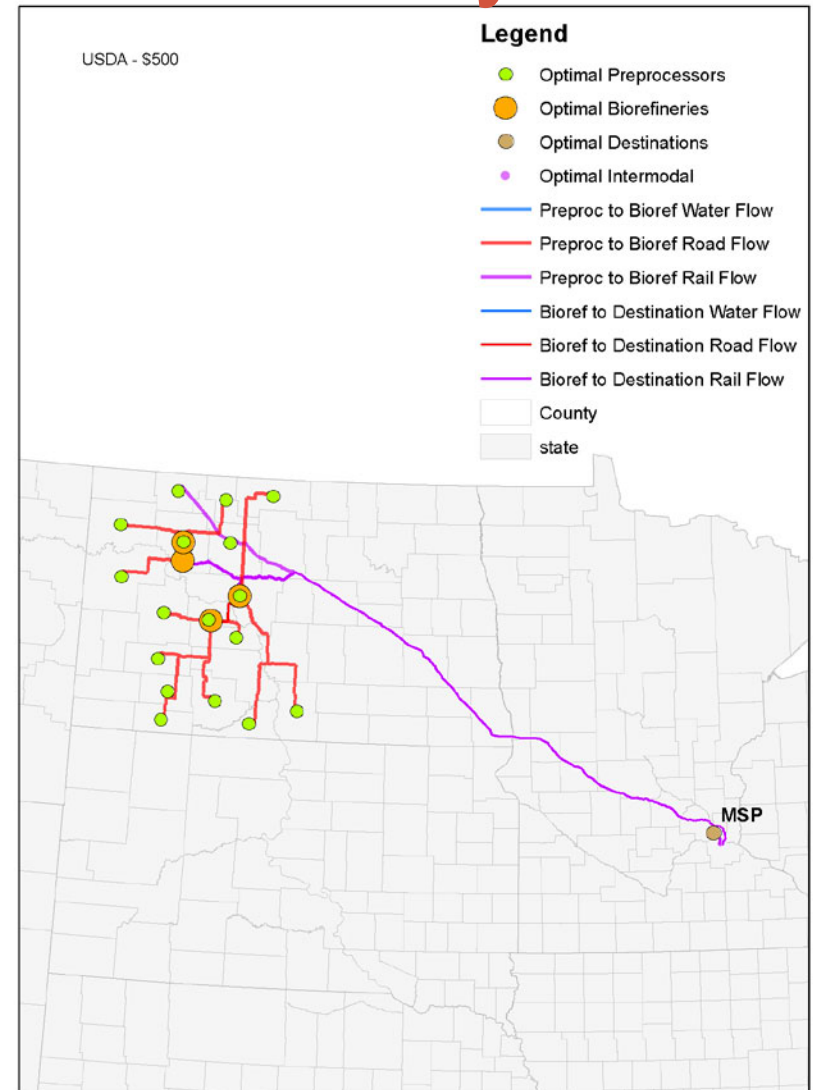
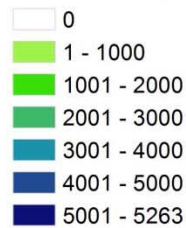
Farmer Adoption



Linkage to Transportation Analysis



Oilseed Feedstock (Mg)
Price = \$500/Mg



Key Points

- Feedstock Availability
 - Agronomics – where can feedstocks be grown?
 - Economics - profitability of feedstock production
 - Adoption - other factors influencing farmer willingness to grow
- Spatial Impacts
 - Not good enough to know how much is available, need to know where
 - Infrastructure and transportation needs
 - Environmental impacts
 - Tied to spatial characteristics
 - Soil and weather
 - Farmer characteristics