Research to Support Agribusiness and Investments in Pulses

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Scaling-up Pulse Innovations for Food and Nutrition Security in Southern Ethiopia

• Value Chain Analysis for Chickpeas and Haricot Beans
• Cost of Production for Smallholder Farmers
  • Limiting Factors
• Adoption of Innovations by Smallholder Farmers
  • Network Analysis
The Quality of the Value Chain Affects the Price the Farmers Receives

• Many middlemen will lower price to farmers
  • But if each farmer has small quantity middlemen will need to be compensated for increased gathering work

• Poor infrastructure (roads, storage, markets) lowers price to farmer
  • Roads
    • Non existent roads result in low or no price
    • Poor roads raise cost and time of trucking and therefore lower price
  • Storage
    • No storage means farmers have to sell shortly after harvest and take a low price
    • Poor storage means farmers have to sell lower quality products
  • Markets
    • Lack of real market information
    • Poor bargaining power of individual farmer
Example of the Effect of Value Chain Quality

• Study by Colleague at Hawassa University in Southern Ethiopia
  • Chickpea retail price in local town - $0.25 Cdn$/lb
  • Price to farmers - $0.06 Cdn$/lb
  • Percentage of retail price to farmers in Southern Ethiopia – 24%

• Summer of 2015 - New Delhi Cash Price for Kabuli Chickpeas - $0.50 Cdn$/lb
  • Price to farmers in Saskatchewan, Canada - $0.26 Cdn$/lb
  • Percentage of New Delhi price to farmers in Saskatchewan, Canada – 52%
  • Percentage of New Delhi price to farmers in Southern Ethiopia – 12%
Cost of Production for Smallholder Farmers

• Limiting Factors
  • Seed cost and availability
  • Fertilizer cost and availability
  • Pesticide cost and availability
  • Storage cost and availability
  • Response of the crop to weather variability
  • Practical scientific knowledge
How Do Smallholder Farmers Make Decision to Adopt New Innovations

• Risk of Loss
  • If the perceived risk is higher than traditional crops - will not adopt

• Cost of Production
  • If cost of growing is higher than traditional crops - will not adopt
    • Especially if have to buy seed every year

• Network Analysis
  • Who do smallholder farmers trust when looking for agricultural information?

• Took 40 years to adopt hybrid corn in US
  • Farmers wanted to save seed but could not

• Took 35 years to adopt 0-tillage in Saskatchewan
  • Farmers had to buy new machinery
Questions