



Drought effects on water resources and crop production in semiarid regions

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What are the principal gaps and opportunities for linking efforts in this area to the others covered in the breakout sessions?

- Systems level operations research in understanding competing uses/opportunities
 - » Socioeconomic considerations/Policy/Law
 - » Water banks
 - » Deficit irrigation
 - » Improve irrigation efficiency
- Grower perspective
 - » Investigate future crop demand/nutrition/diet
 - » Understand global markets/trade how they impact risks
 - » Crop Insurance
- Delivery of climate information to growers in real time
 - » Accounts for soils/crop types (e.g. YieldProfit)
 - » Mobile apps
 - » Markets



What sorts of short and long-term activities could promote the needed collaboration and integration?

- CGIR Collaboration with US and European Researchers
- More international Research projects
 - » Most calls are nationally focused
 - Not easy to submit



With an increasing risk of drought conditions under future climates, what will be the key adaption strategies which will provide resilience to growers in semi-arid cereal systems?

– Non irrigated Arid adaptations to drought

- » Shift in where crops are grown
- » Earlier planting dates
- » Tillage (convert to no-till) retain moisture
- » Convert crop types
- » Breeding out of drought (not an option in some areas)



To what degree can 'blue water' (water storage, timing, and delivery) versus green water (more efficient use of soil water) solutions provide the necessary water to meet the increasing future, global food demands?

- Supplemental irrigation/Deficit irrigation with temporary storage to withstand high heat stress (not an option in India, high cost)
- Groundwater could be temporary storage
- Surface/ground water interactions make this complicated





Thank you!

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