



Terra-Fresh

TERRa-Fresh Case Study Overview

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Case Study Overview

- One year planning scenario considering weekly time periods
- 6 crops and 1 potential opportunity
- 6 production regions:
 - AZ: Tucson, Yuma, Phoenix
 - NM: Albuquerque, Las Cruces
 - CO: Aspen



Variables of Interest:

- **Prices** - USDA historical data
- **Volumes** - US Census population estimates and USDA food availability data
- **Yields** - estimated based on agronomic potential of regions of interests, obtained academic studies from U.S universities and NASA weather data
- **Production Costs** - crop budgets from UC Davis Cost Study Center
- **Validity of this case study is subject to accuracy of these parameters estimates***

Target Demand Node

Location	Land Available (Acres)
Albuquerque	60
Aspen	10
Las Cruces	30
Phoenix	40
Tucson	30
Yuma	30

Base Crops:
 Green Beans
 Bell Peppers
 Romaine Lettuce
 Roma Tomatoes
 Cauliflower
 Cucumber

Market Opportunity: Celery

Production regions satisfy demand from Las Vegas



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STAGE 1

Objectives of Stage 1:

- Maximize revenues for a coalition of growers
- Assess risk for growers
- Identify opportunities for growers

- ✓ When to plant
- ✓ What to plant
- ✓ How much to plant
- ✓ How much labor to hire for the season

Case Study Description – Cont.



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Basket of crops considered:

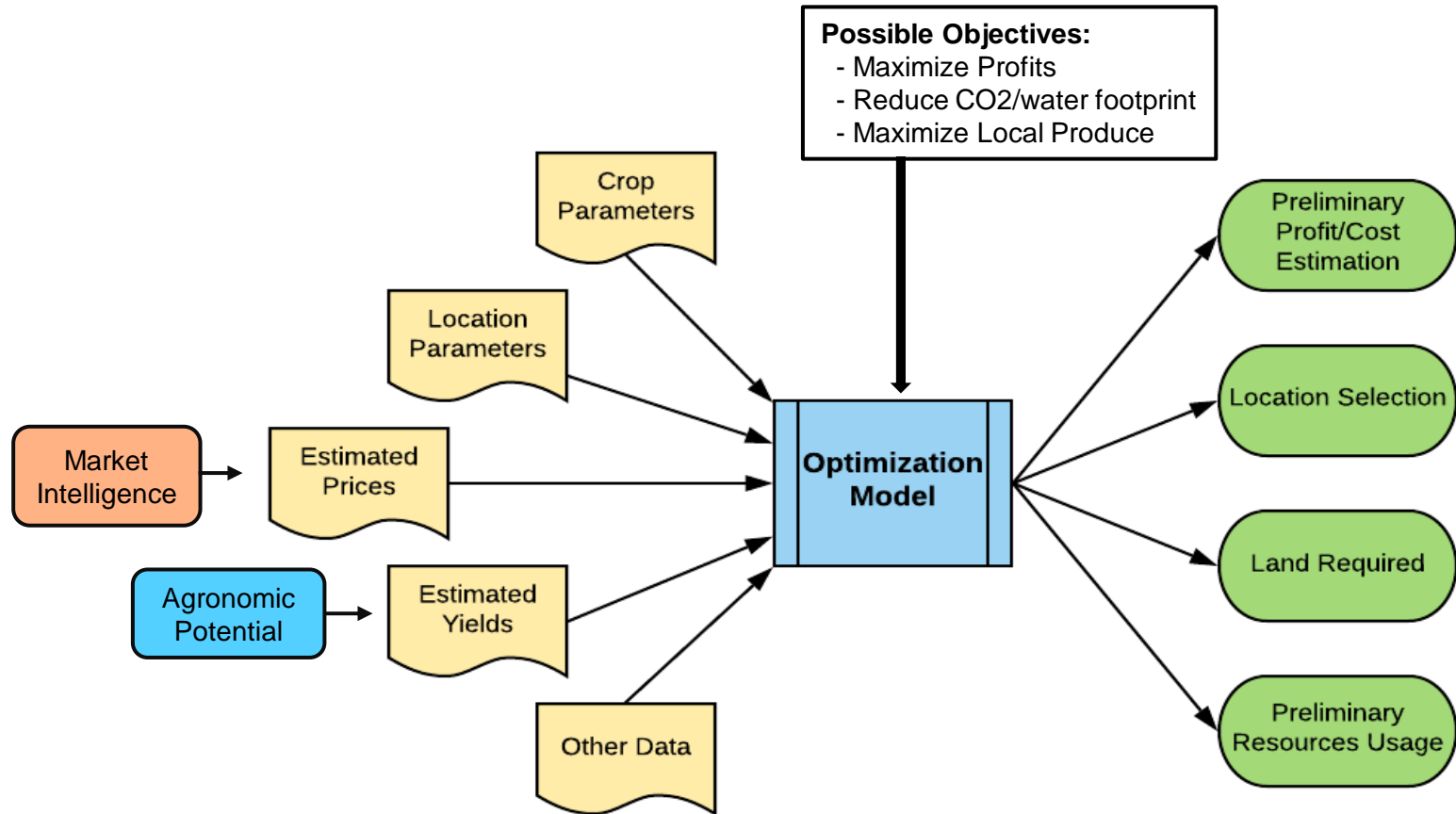
- Bell Peppers
- Cauliflower
- Celery
- Cucumbers
- Green Beans
- Romaine Lettuce
- Roma Tomatoes



Outcomes of Decision Support Models

Model Inputs:

Specific details about production process to help modeling the planning process



Model Outputs:

Results that can be used to assist the planning process, depending on the desired objective



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Thank You

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