



# FruitLook

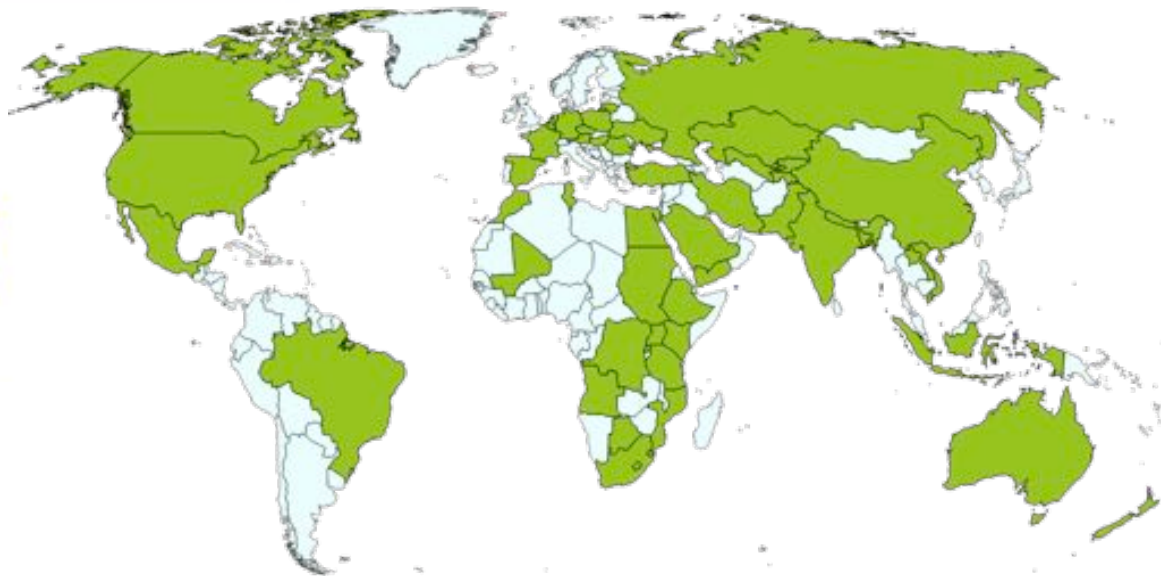
Satellite data to optimize fruit production

10 May 2017  
Ruben Goudriaan

[eleaf.com](http://eleaf.com)



# What does eLEAF?



- Since 2000
- Data, consultancy, research, applications
- Climate, water and agriculture
- Quantitative Remote Sensing = PiMapping<sup>®</sup>



Alchanatis and Cohen, ARO, Israel

Alchanatis and Cohen, ARO, Israel





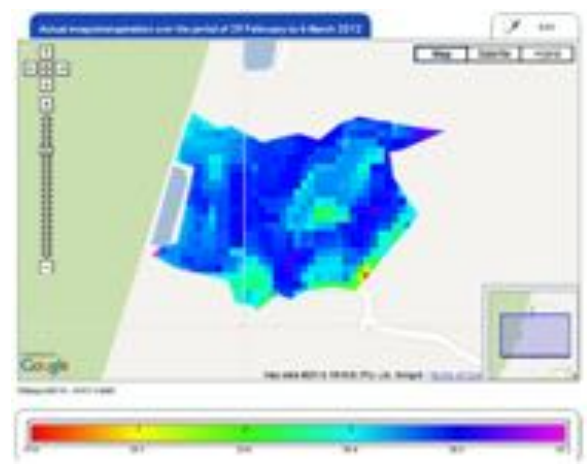
Practical Application

Intelligent pixels

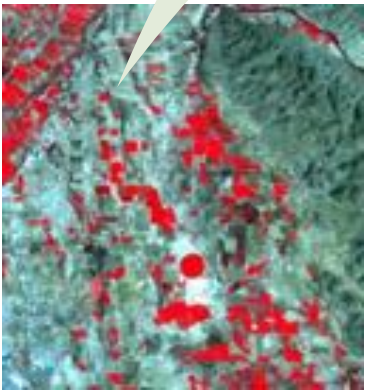
Remote sensing data



e.g. Irrigation advice



e.g. Evapotranspiration



e.g. NDVI





# FRUITLOOK: MAKING FRUIT FARMING WATER EFFICIENT



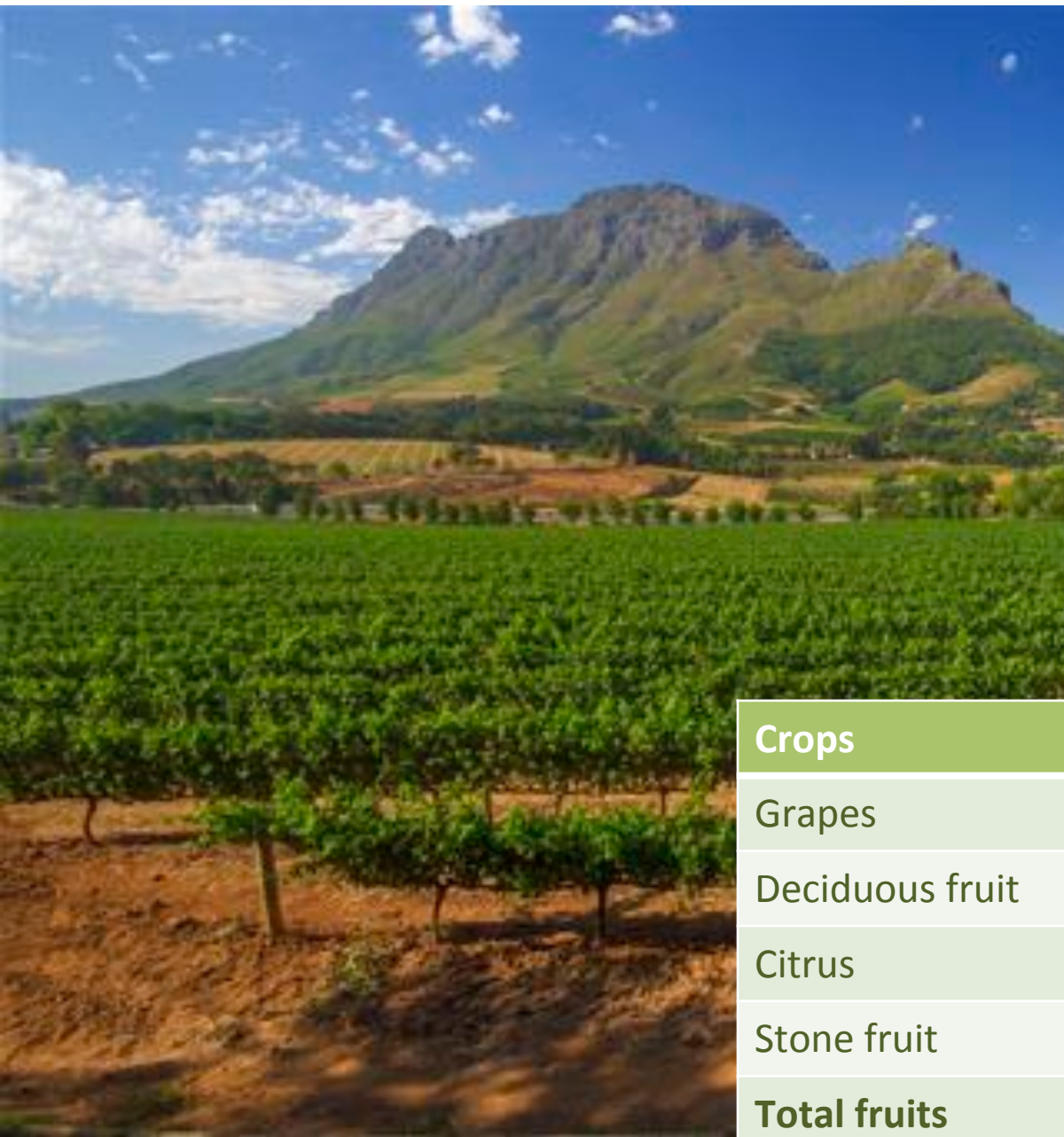
Western Cape  
Government

Agriculture





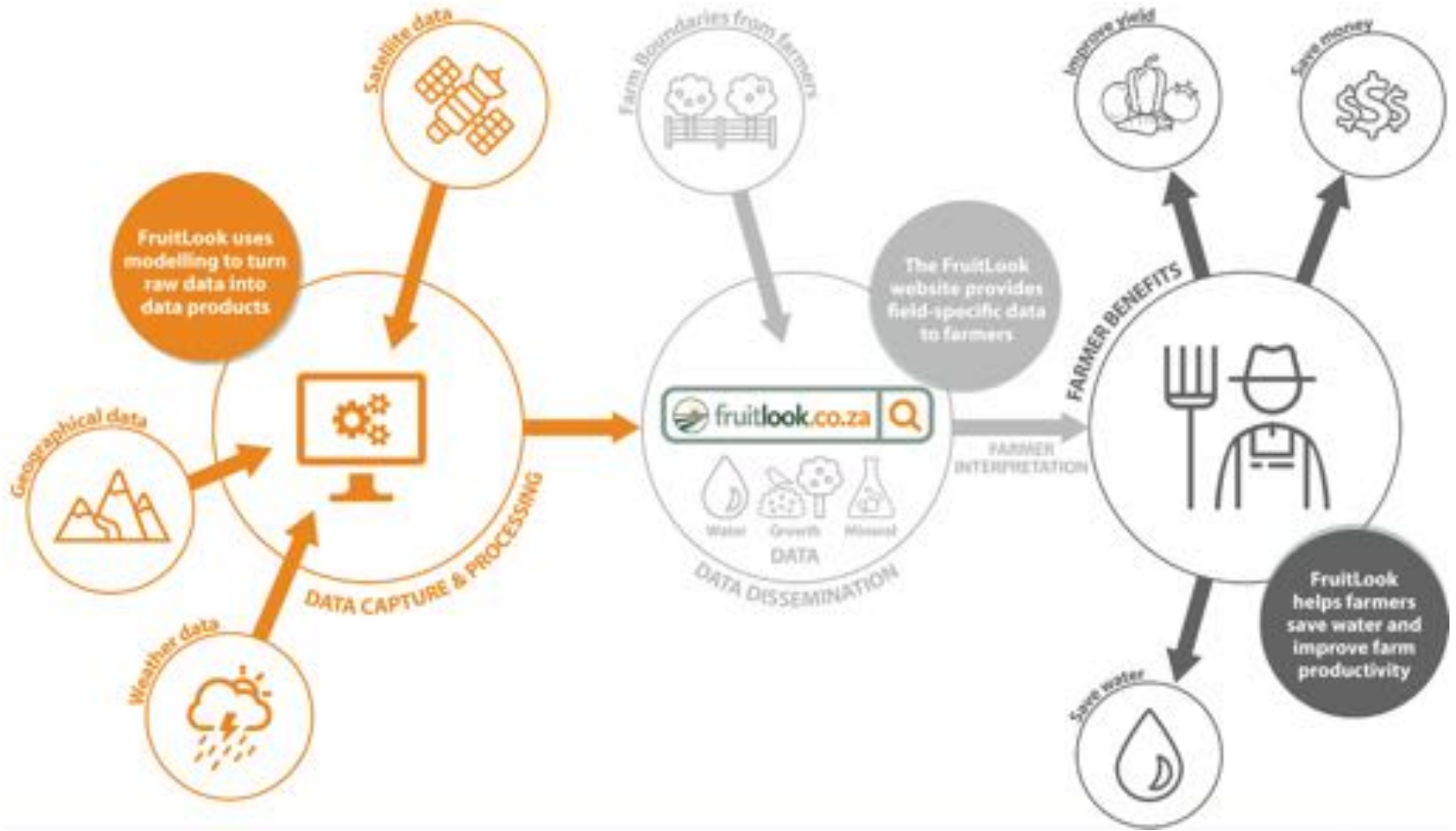
# FruitLook Area: Western Cape



| Crops               | Hectares       |
|---------------------|----------------|
| Grapes              | 118,900        |
| Deciduous fruit     | 30,500         |
| Citrus              | 12,000         |
| Stone fruit         | 21,000         |
| <b>Total fruits</b> | <b>182,500</b> |



# FruitLook Structure





# FruitLook Data Portal

- MOISTURE
- GROWTH
- MINERALS

The linked image cannot be displayed. The file may have been moved, renamed, or deleted. Verify that the link points to the correct file and location.



Legend for Biomass production (kg/ha/week):

- Grabauw1 - 2014-15
- Grabouw2 - 2014-15
- Grabouw3 - 2014-15



11 Mar - 17 Mar  
Field: Grabouw3  
Parameter: Biomass production  
Season: 2014-15  
Value: 181 kg/ha/week  
View the map for current values.

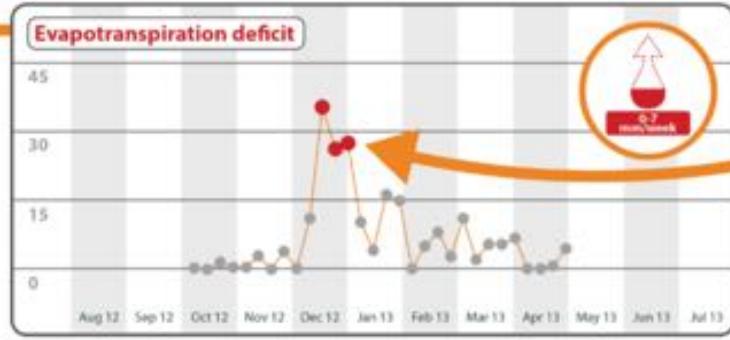
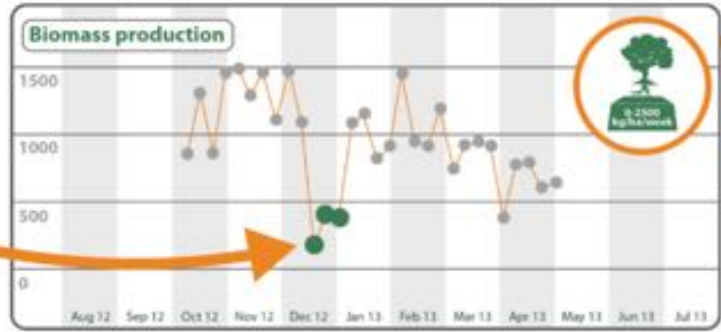




# FruitLook Use Example

Poor yield caused by insufficient irrigation in critical growth stages.

FruitLook data showed that **biomass production** was lower during December, a crucial time for pear development. What caused the drop?



The **evapotranspiration deficit** was very high over the same period. Taken together, the FruitLook data suggests the pear orchard experienced water stress at this crucial growth stage.



# FruitLook Impact

---

- Over 450 active users;
- Over 32,000 ha in active use;
- Water productivity improved more than 10% for 60% of the users
  
- **Unique project in the world for improving production and resource use at an unprecedented scale**



# Want to know more?

---

- On 13 May 2017 FruitLook is featured in Al Jazeera's Earthrise
- Visit [www.fruitlook.co.za](http://www.fruitlook.co.za)
- Contact: Ruben Goudriaan  
[ruben.goudriaan@eleaf.com](mailto:ruben.goudriaan@eleaf.com)

