Verifying Cotton Provenance





An Origin Fingerprint

3. The fingerprint of origin is stored in the Oritain database.



1. Cotton naturally absorbs different levels of chemical elements and isotopes that exist in its direct environment. This gives cotton its unique origin fingerprint.



6. Results are reported to the customer. Certification and marketing opportunities can be leveraged for consumers.



2. Samples of global cotton sources are collected and analysed to identify the origin fingerprint.



4. Samples are collected across the supply chain and market for testing.



5. Products are tested against the fingerprints that are stored in the database.



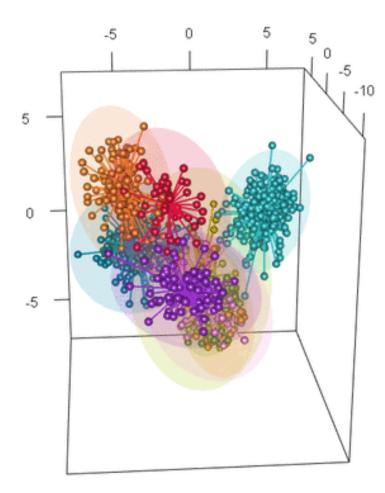
Database



Origin Fingerprint - Global

N_TJK_PAK

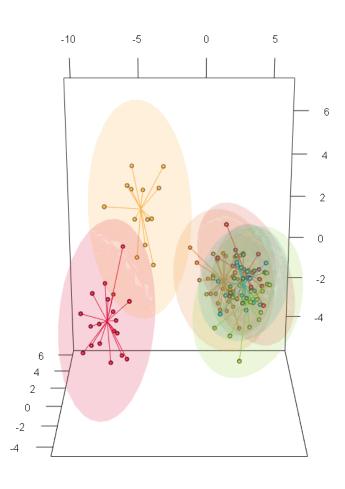
outhwest US ab-Saharan Africa



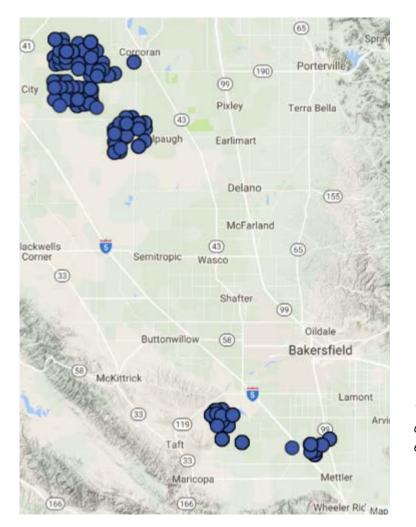
- Oritain uses statistics to interpret 1000's of pieces of sample/analyte data into something that can be comprehended
- A tested sample of genuine origin will lie in the area of space occupied within its chemical fingerprint
- **Non-genuine** tested samples or blends reside in areas of space outside of its chemical fingerprint

Origin Fingerprint – J.G.Boswell Farms





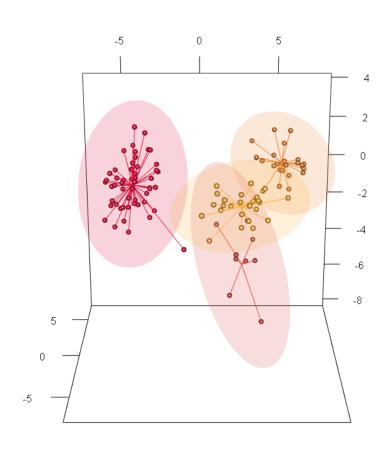
Tulare

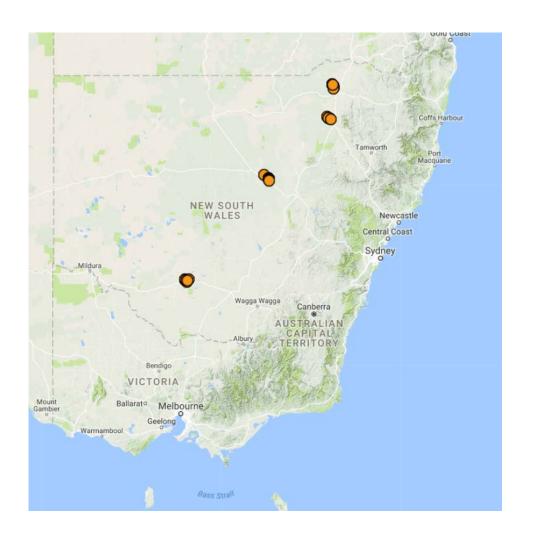


*Oritain are continually adding to this database at every harvest.

Origin Fingerprint – Auscott Farms (BCI)



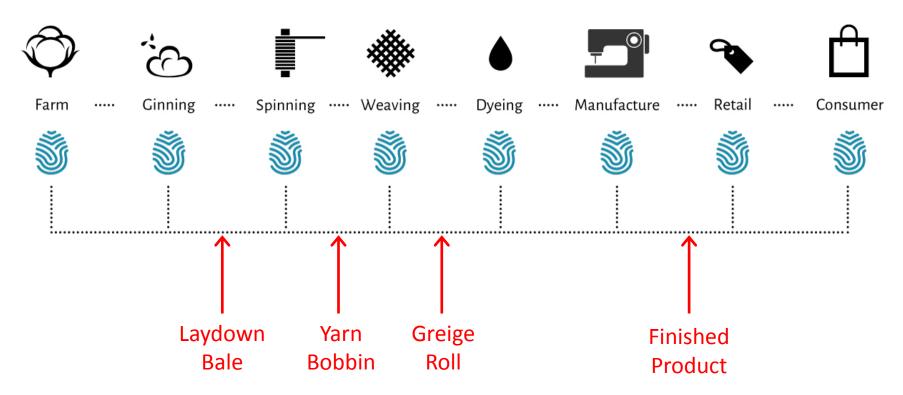






Audit at Points Across the Supply Chain

- Testing at multiple points across a supply chain where there is 'risk'
- By doing multiple tests several times at these various stages (including the laydown)
 the likelihood of identifying any issues as they happen is very high



Advantages of the Oritain Approach

- 1. Commercially proven across a number of different industries
 - Oritain has a proud history of delivering for customers





- 2. It is a 'product test'
 - Measures what exists naturally in the product
 - Not a 'tag and trace' system
- 3. Manufacturing friendly
 - No changes to manufacturing are required
 - No variable costs per pound to apply a 'tracer'
 - **Flexible** and is not reliant on buy-in from one supply chain
- 4. Has the capability to **identify blending**
 - Not a 'presence / absence' test









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