



Guayule, a climate appropriate crop for the desert southwestern US, as a source of domestic natural rubber

Bridgestone Americas, Inc., Agro Operations

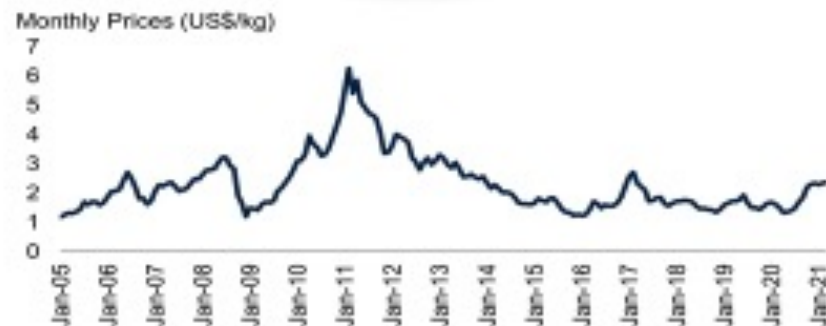
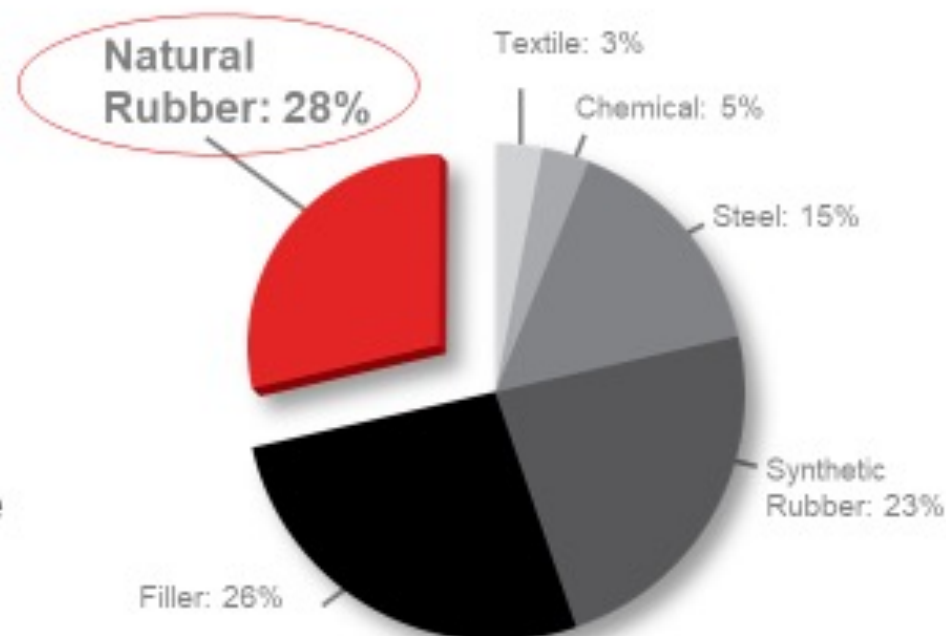


Natural Rubber – The Current Situation



The single most important raw material for tire manufacturing is:

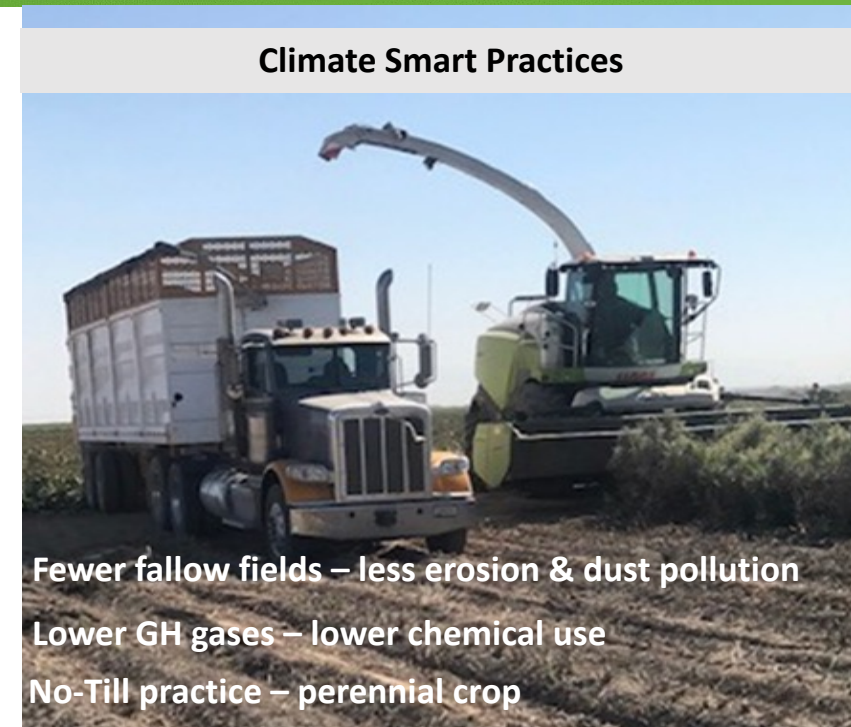
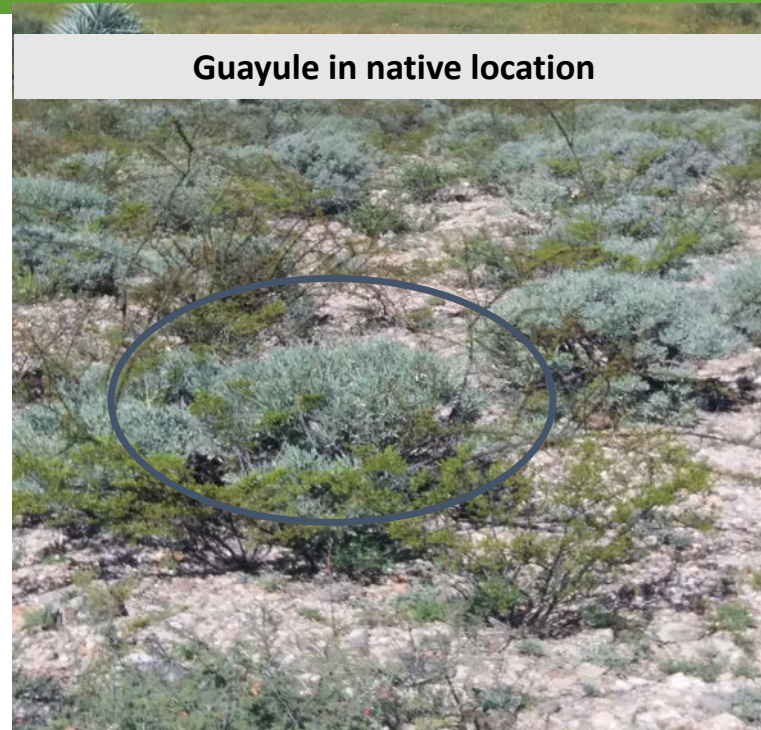
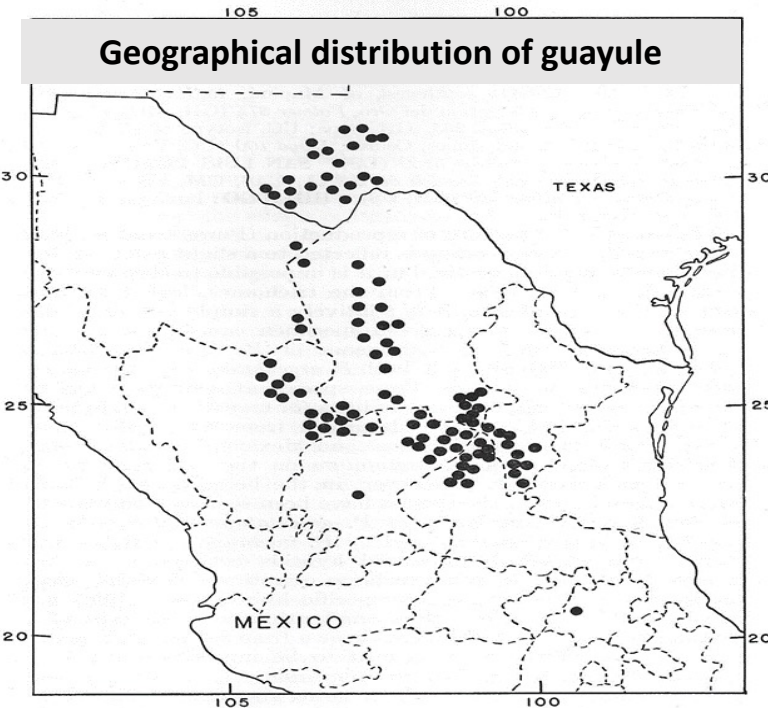
- **Biologically single sourced** → A single species (*Hevea brasiliensis*) supplies 100% of NR
 - ✓ Clonal mono-cultures
 - ✓ Disease issues (leaf fall disease)
 - ✓ Biodiversity
- **Geographically concentrated** → 93% of global supply from SE Asia
 - ✓ Rapidly increasing labor costs
 - ✓ Competition with low-labor alternative crops (palm oil)
 - ✓ Climate change risk
 - ✓ Geo-Political issues / Political instability
 - ✓ Supply-demand imbalance as China/India demand grows
- A Market Traded commodity subject to **speculation and price-volatility**



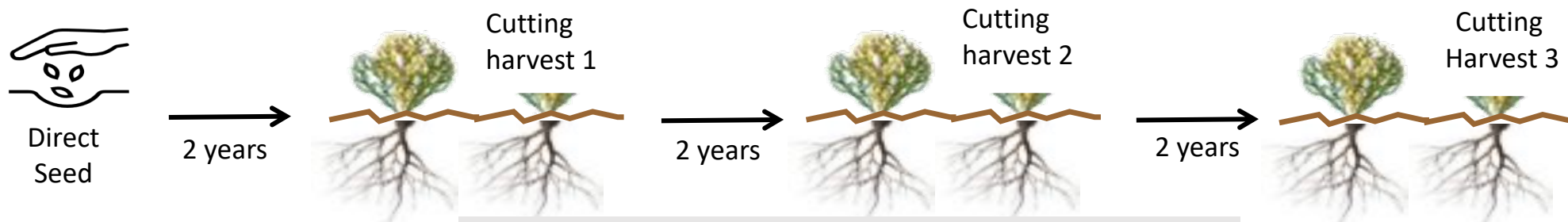


Why Guayule? Desert shrub characteristics = Drought tolerance

Gray leaf color, Dense trichomes, Waxy cuticle layer, Deep tap roots, Perennial shrub



Fewer fallow fields – less erosion & dust pollution
Lower GH gases – lower chemical use
No-Till practice – perennial crop



Guayule commercial growing cycle – No reseeding needed



Indy 500 2022 Debut!

Guayule Firestone Firehawk racing tire

- Made with guayule natural rubber introduced at the Indy 500 Pit Stop Challenge
- Guayule race tires will make a competition debut as the alternate race tire at the Big Machine Music City Grand Prix in Nashville in August

THANK YOU!