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

Geographical distribution of guayule

Guayule in native location

Climate Smart Practices

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

Direct Seed

Cutting harvest 1

Cutting harvest 2

Cutting harvest 3

Guayule commercial growing cycle – No reseeding needed
• 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!