



**SUSTAINABLE BIOECONOMY**  
FOR ARID REGIONS

# GUAYULE-BASED JOB CREATION IN THE ARID REGIONS' BIOECONOMY

## EXECUTIVE SUMMARY



> The SBAR Center of Excellence has identified opportunities for growing, harvesting and processing guayule (*Parthenium argentatum*) in the arid Southwest as part of a larger regional bioeconomy. The potential value of guayule coproducts (like resin adhesives, termite repellants, and insecticides) is even higher. Guayule production can be a sustainable driver for job creation in the Southwestern U.S.

> All parts of growing guayule present opportunities for job growth from planting and harvesting, to the extraction process that produces the rubber and other coproducts. Additional sectors for growth include **education** for training bioeconomy workers, **business entrepreneurs** for product promotion and marketing, and **transportation** specialists, among others.

> The significant job creation necessary to build a bioeconomy in the Southwest confirms the sustainability of guayule.

## SBAR ACCOMPLISHMENTS

> Demonstrated guayule as a sustainable commercial crop for the arid southwest.

> Designed sustainable biomass supply chain optimization, including the location of processing facilities, transportation, and harvesting logistics.

> Completion of the BENCO model: a dynamic tool that supports evaluation of the economic, financial, and resource implications of crop adoption.

> Development of an SBAR internship program available for experiential learning to support jobs in guayule-based technology and production.

## KEY DETAILS

- > Job creation is a key element of a sustainable bioeconomy
- > Guayule job opportunities range across multiple sectors
- > Non-formal learning (like 4-H) increases awareness of bioeconomy job opportunities

## KEY TAKE-AWAYS

- > Potential \$1.4B market for guayule production in US
- > Thousands of future guayule-based jobs will cross multiple economic sectors
- > Job training opportunities abound via internships, community colleges, and universities

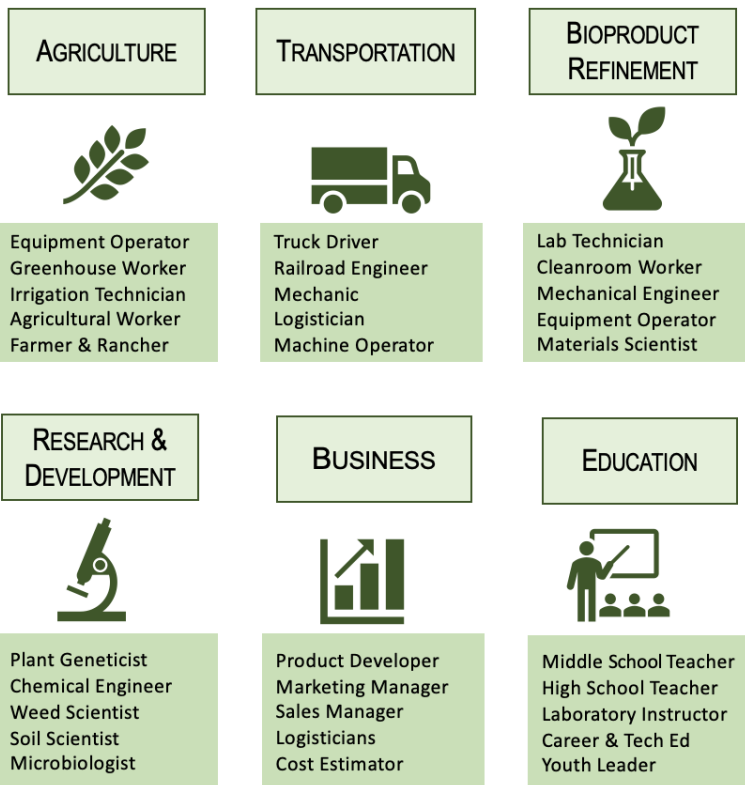
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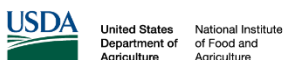
## BIOECONOMY JOB CREATION

- > Increased guayule production in the arid Southwest will support an increase in jobs across different areas of the economy. Anticipated jobs cross six primary economic sectors: agriculture, transportation, bioproduct refinement, research and development, business, and education.
- > Job growth from bioeconomic innovation is a key part of a sustainable future for arid regions.

### Job Creation in Guayule-Based Bioeconomy



For more information: <https://sbar.arizona.edu>



Any opinions, findings, conclusion or recommendation expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture. Grant #: 2017-68005-2686

SBAR Center of Excellence Briefing Paper (Guayule-Based Job Creation in the Arid Regions' Bioeconomy). January 2022.