GROWERTALKS

Guest Column

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Proposed Trade Policies Create Economic Inefficiencies

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Over the past 40 years, the journey from raw material to finished product has stretched across oceans, continents and time zones. Lawn-and-garden equipment, for example, assembled in the Midwest may incorporate steel rolled in South Korea, circuitry etched in Taiwan and lithium-ion cells charged in Malaysia. This geographic dispersion is not an accident of fate; it's the outcome of systematic cost compression and rule-writing that has made borders steadily less important to commerce. Understanding why supply chains globalized—and why many of those links run through the lawn-and-garden aisle—begins with the economics of moving things and the politics of letting them move.

Lower logistics costs lit the fuse. The container revolution slashed the price of ocean transport from roughly $5.86 a ton for break-bulk cargo in the 1950s to about $0.16 once cranes could lift standardized boxes straight onto ships, railcars and trucks. Today more than 60% of everything the world buys—nearly $14 trillion in goods—is stuffed into a steel rectangle at some point in its life cycle. Just as importantly, the reliability of container service allowed manufacturers to cut inventory buffers and treat distant suppliers as just another workstation on the factory floor. As freight prices fell, the economic circle of viable trading partners widened.

Policy finished what technology started. In 1980, the average global tariff on manufactured goods hovered in the mid-teens; by 2024 it had fallen below 3% for World Trade Organization (WTO) members. Landmark agreements—General Agreement on Tariffs and Trade (GATT)'s Tokyo and Uruguay Rounds, the 1994 North American Free Trade Agreement, the 2001 entry of China into the WTO, and hundreds of bilateral deals since—erased or harmonized duties, quotas and product standards. At the same time, governments liberalized capital accounts, so foreign direct investment could pay for new tooling wherever labor, land or know-how was cheapest. Each treaty wrote another paragraph in the operating manual of the modern supply chain.

Digital coordination turned distance into data. Cheap fiber-optic bandwidth, satellite tracking and cloud-based enterprise resource planning software let firms orchestrate design in Boston, sourcing in Shenzhen, assembly in Tijuana and distribution in Dallas without losing the heartbeat pace demanded by just-in-time production. When a purchasing manager watches a shipment cross the Pacific in real time and reroutes it around a typhoon with a tap, the cost of distance falls again—this time in terms of risk rather than dollars.

The law of comparative advantage provides the strategic logic. As David Ricardo showed two centuries ago,

what matters is not absolute cost, but relative efficiency: a country (or firm) gains by specializing in what it does best relative to everything else it could be doing and trading for the rest. Specialization liberates scarce resources—time, talent, capital—to flow where their opportunity cost is lowest and trade converts that efficiency into a broader menu of goods for everyone involved. Global supply chains are simply comparative advantage operating at full scale. So comparative advantage trumps absolute advantage (a country's ability to produce at a low cost) because it includes the consideration of opportunity costs!

The payoff has been variety, velocity and value. North American consumers now encounter year-round shelves of tropical plants, cordless trimmers that weigh half what they did a decade ago and bulk mulch delivered within 48 hours of an online order. Businesses, for their part, leverage offshore cost differentials and on-shore design strengths to preserve margins even as retail prices stagnate. True, the pandemic reminded managers that a lean chain can snap, but the long-run trend remains clear: the gains from trade have consistently outweighed the costs of occasional disruption and reshoring efforts to date have been selective rather than wholesale.

Why globalization matters to the U.S. lawn-and-garden industry. Horticulture offers a textbook illustration of these forces in action. Start with plants themselves: U.S. imports of cut flowers, live plants and nursery stock reached $3.3 billion in 2022, sourced from 81 countries led by Colombia, Ecuador, Canada and the European Union. USDA now projects horticultural imports to continue climbing through FY2025, a key reason total agricultural import value is expected to increase. The motive is simple comparative advantage: equatorial latitudes and altitudes yield year-round sunlight and cool nights that produce longer stems and brighter petals at far lower per-unit energy cost than a heated greenhouse in January in Ohio. By importing finished blooms or young "liner" plants, domestic growers can focus limited greenhouse space on high-margin finishing work and rapid response to local demand spikes rather than on long growing cycles.

Next consider inputs. Plastic pots, irrigation sensors, peat moss and battery packs flow into U.S. ports from other countries that operate at scales economically impossible to replicate in the U.S. Seeds illustrate another layer of benefit: American, Dutch, Japanese and Israeli breeders dominate germplasm for heat-tolerant petunias and downy mildew-resistant impatiens. Central and South American and Asian producers multiply that seed, smoothing supply for North American spring bedding plant growers. The genetic pipeline would choke without air freight, phytosanitary protocols and intellectual property treaties embedded in the global supply chain architecture.

Even service inputs are global. Cloud-based nursery management platforms run on servers in Ireland or Singapore, while predictive analytics firms in Bangalore crunch point-of-sale (POS) data from American box stores to forecast next spring's planter mix demand. Comparative advantage here is cognitive rather than climatic—leveraging vast pools of software talent abroad to solve logistical puzzles at home.
Concrete benefits accrue all along the North American green industry value chain:

- **Cost containment.** Imported young plants can land for 30% to 40% less than the domestic cost of propagating from scratch, freeing capital for automation and sustainability upgrades, and freeing labor for finishing higher-value finished products.
- **Assortment breadth.** Access to thousands of cultivars bred either domestically or overseas lets retailers rotate novelty and respond to niche consumer tastes without carrying excess inventory.
- **Seasonal smoothing.** Because production cycles are staggered across latitudes, U.S. retailers refill racks between Easter and Independence Day, instead of running out after Mother's Day.
- **Resilience through redundancy.** Multiple sourcing regions—Central America for foliage, Kenya, Colombia and Ecuador for roses, Canada for conifers—provide backup when frost, fire, flood or

phytosanitary bans strike any single origin.

- **Innovation spillovers.** Exposure to Dutch robotics in seedling grafting or Japanese precision pruners accelerates the adoption of labor-saving technology in North American greenhouses and equipment factories.

These gains do not come without friction: freight spikes like those of 2021, geopolitical tension in the Taiwan Strait or phytosanitary pests hitchhiking on imported boxwoods all remind managers that efficiency and vulnerability travel together. But the industry's response during, and since, the global pandemic—dual sourcing, inventory hedges, port diversification—is to "refine" global links, not abandon them. The economic logic that pushed firms "outward" in the first place still holds.

Looking ahead

The forces that globalized supply chains since the 1980s—less expensive containers, mutually-beneficial trade rules, more efficient transportation alternatives, digital coordination and the logic of comparative advantage—remain largely intact even after the shock of the pandemic-related supply chain shocks and talk of mitigating supply chain risks. For the U.S. lawn-and-garden sector, continued engagement with international partners promises broader genetic palettes, smarter equipment for automation and a more reliable flow of inputs at prices that keep gardening and landscaping an accessible pastime for households and a profitable enterprise for growers, suppliers and retailers. Hedging against volatility witnessed recently will require flexible contracts and analytical tools, yet the strategic direction is clear: plants—and the global network that fertilizes, protects, grows and monetizes them—will stay greener when the borders around them stay globalized. **GT**

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