

## Testimony in Support of L.D. 1897 An Act Regarding Sun-grown Cultivation in the Medical Use and Adult Use Cannabis Industries

To the Honorable Members of the Committee on Veterans and Legal Affairs, My name is Paul T. McCarrier and I have been a caregiver for over 14 years and am deeply committed to cultivating cannabis sustainably while ensuring patients have access to affordable, high-quality medicine. I stand before you today to urge your enthusiastic support for L.D 1897, An Act Regarding Sun-grown Cultivation in the Medical Use and Adult Use Cannabis Industries. This transformative bill promotes sun-grown cultivation, which leverages regenerative farming practices to restore soil health, sequester carbon, and enhance biodiversity, while delivering substantial electricity cost savings compared to indoor cultivation. By advancing these environmentally and economically beneficial methods, **LD 1897 positions Maine as a leader in sustainable cannabis production, supports small-scale caregivers, and enhances patient access.**

LD 1897's support for sun-grown cultivation—defined as cannabis grown using sunlight as the primary light source with minimal electricity (100 amperes or less per 1,500 square feet)—unlocks the potential for regenerative farming practices that contrast sharply with the resource-heavy demands of indoor cultivation. Regenerative agriculture, including cover cropping, composting, crop rotation, and companion planting, rebuilds soil organic matter and fosters ecosystem resilience. **For sun-grown cannabis, cover crops like clover reduce erosion and fix nitrogen, composting recycles organic waste into nutrient-rich amendments, and companion plants like marigolds deter pests naturally, minimizing chemical inputs.** These practices, enabled by sun-grown cultivation, create vibrant ecosystems that support pollinators, improve soil structure, and sequester carbon—potentially capturing 0.5–2 tons of CO<sub>2</sub> per acre annually, according to regenerative agriculture research. By allowing sun-grown medical cannabis caregivers to cultivate up to 150 mature plants or 2,500 square feet of mature canopy annually (vs. 30 plants or 500 square feet at any given time), LD 1897 scales these regenerative benefits, amplifying their environmental impact across Maine.

A critical economic advantage of sun-grown cultivation is its dramatic reduction in electricity costs, a major burden for indoor cannabis facilities in Maine. Indoor cultivation relies on high-intensity lighting, HVAC systems, and dehumidifiers, consuming approximately 2,000–3,000 kWh per pound of cannabis produced, according to a 2021 Nature Sustainability study. For a modest 500-square-foot indoor facility in Maine, producing around 50 pounds of cannabis annually, this translates to an electricity demand of 100,000–150,000 kWh per year. At Maine's average commercial electricity rate of \$0.16 per kWh (based on 2024 data from the U.S. Energy Information Administration), **such a facility faces an annual electricity bill of \$16,000–\$24,000, with lighting alone accounting for 50–60% of costs. Larger facilities, like a 2,500-square-foot operation, could see bills exceeding \$100,000 annually.** In contrast, sun-grown cultivation eliminates artificial lighting needs and minimizes climate control, requiring less than 100 kWh per pound for basic equipment like irrigation pumps. **For the same 500-square-foot sun-grown operation, electricity use might drop to 5,000 kWh annually, costing just \$800—a savings of \$15,200–\$23,200 per year. For a 2,500-square-foot sun-grown operation, savings could reach \$75,000–\$90,000 annually compared to indoor methods.** These savings, facilitated by LD 1897's expanded cultivation limits, allow caregivers to offer affordable cannabis, easing the financial burden on patients with chronic conditions.

LD 1897 further supports regenerative and cost-saving practices through tailored provisions. Equitable registration fees for sun-grown caregivers (e.g., \$240 for 30 mature plants or \$1,500 for 2,500 square feet of canopy) and lower license fees for adult use sun-grown facilities (e.g., \$9 per plant vs. \$17 for indoor tier 1 facilities) reflect the reduced operational costs of sustainable cultivation. The bill's outdoor cultivation requirements, such as gated driveways and signage, ensure security without energy-intensive infrastructure, while allowing cultivation on two noncontiguous parcels enables caregivers to select land ideal for regenerative methods, preserving Maine's natural resources. The 30-day grace period for caregiver assistants and adult use cannabis staff to work post-application prevents delays, keeping regenerative projects on track. Repealing the cannabis collectives prohibition fosters resource-sharing, reducing input costs and environmental waste, while eliminating mandatory yeast and mold testing for adult use cannabis lowers expenses without compromising safety, as regenerative sun-grown crops benefit from natural conditions that deter contaminants.

LD 1897 is a bold vision for a regenerative, cost-efficient cannabis industry. By promoting sun-grown cultivation, it enables practices that restore soil, sequester carbon, and save caregivers tens of thousands in electricity costs annually—savings that translate to affordable medicine for patients. **I urgently implore you to vote in favor of LD 1897, affirming Maine's commitment to a sustainable, equitable, and thriving cannabis future. Thank you for your leadership and consideration.**

Sincerely, Paul T McCarrier  
Registered Caregiver/Sustainable Agriculture Advocate  
Resident of Monroe