



Echinacea (Echinacea purpurea)

The SHP Sustainability & Regenerative Practices Toolkit

Sustainable Herbs Program
AMERICAN BOTANICAL COUNCIL



Echinacea (Echinacea purpurea)

Curiosity and care are all you need. Companies like Traditional Medicinals were founded to save the world. We figured out the details later.

Josef Brinckmann
Traditional Medicinals

Chamomile (*Matricaria chamomilla*) in drier



Goldenseal (*Hydrastis canadensis*)



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Bagging dried
passionflower (*Passiflora incarnata*)



Mullein (*Verbascum* sp.) flower harvest

You bring about change
one herb and one product
at a time.
You can't be perfect. Just
start somewhere.

Cindy Angerhofer
Aveda

EXECUTIVE SUMMARY: WHY INVEST IN SUSTAINABILITY* AND REGENERATION?

The climate emergency and the decline of biodiversity make it abundantly clear that business as usual is no longer enough. Rather than re-stating the facts of this emergency and the necessity for action, this resource guide spells out paths to building systems and economies that are sustainable and regenerative by design, that care for the well-being of all humans within the means of the environment.

The botanical industry, an industry based on the value propositions of wellness and health, is uniquely suited to lead the way in demonstrating ways of doing business that serve the human and ecological communities on which health and wellness depend. This industry is also uniquely suited to be most directly impacted by biodiversity loss and climate change impacts.

The Sustainable Herbs Program tool kit is a collection of resources and best practices for becoming more socially and environmentally responsible that are specific to the herb and botanical business sectors. This toolkit can be used by companies at various stages in the journey—from those just starting out to those leading the way. It can be used as a resource for those directly responsible for implementing these practices and as a resource for educating others in a company about best practices, key issues, and why addressing quality, sustainability, and equity in their company matters.

In preparing this guide, the Sustainable Herbs Program has reviewed scores of reports and articles. It is easy to get caught in thinking that more information is the way forward. But the information and resources already exist. What is needed is a sense of urgency and a strongly committed willingness to act.

What is Sustainable Herbalism? In this video, Pukka co-founder Sebastian Pole says, "It's all about love. What do you love and who you love and how you want to love them? And if you love nature and you love people, you want to take care of them."

The urgency required comes from realizing that what we love risks being lost. And that it is up to each of us to do all we can to prevent that from happening.

* We agree with the limits of the word 'sustainable' — that the degradation of the world is such that we need to regenerate life systems rather than simply sustain them in a degraded state. We use the word to mean not sustaining what is here, but sustaining the life systems on which we depend, which, in our mind includes regeneration since those systems are regenerative. We also continue to use 'sustainable' and 'sustainability' just because those are the words in current common use. Our language, like the work required, is a work in progress.

GUIDE TO THE SHP TOOL KIT

This tool kit is organized along these three themes:

1. **Learn** — General information on the topic to get you started and questions for you to apply this information to your own company. This includes videos and case studies to introduce the topic, educate, and inspire.
2. **Act** — Suggested action steps.
3. **Dig Deeper** — Additional resources to explore the issue more deeply and learn from how other companies and sectors have approached it. New resources, tools, guides, and reports are continually available. This list consists of SHP's recommendations as of early 2020. SHP has worked to find resources that address underlying issues so that they will continue to be relevant and useful now and in the future. While the latest information is important, sometimes the search for what is most up to date can be an excuse for inaction. Often the most useful information is what you learn from diving in and learning as you go. In any case, SHP will update the information on the website on a yearly basis. We encourage you to sign-up for the SHP **newsletter** and we will inform you of updates as they are released.

How to Use this Guide:

- Everyone with whom we have spoken has emphasized that collaborating across departments is key to getting the support needed to take action. This guide is structured as a program to be used for regular meetings for all staff, not just those responsible for sustainability. Each topic includes a video, links to further reading or a case study on that issue, a question or two for discussion, and resources for further exploration.
- The SHP Toolkit also can be used simply as a resource guide for those persons implementing sustainability practices in their company.
- Skim over the resources for the section. The number of tools and resources are rich in content. They serve different purposes. Pick one that resonates with your needs and your approach and dive in.

Note: We have included many links to resources we find valuable. Throughout the Tool Kit all links are shown in bold and underlined. These links change as organizations and companies create updated content. While we will try to keep current on these, if a link is broken, just go to the organization and search their content directly.

Never underestimate the power of questions. They can get you information and build relationships with suppliers.

Erin Smith
Wish Garden Herbs



Witch hazel (*Hamamelis virginiana*)



Harvesting saw palmetto (*Serenoa repens*)

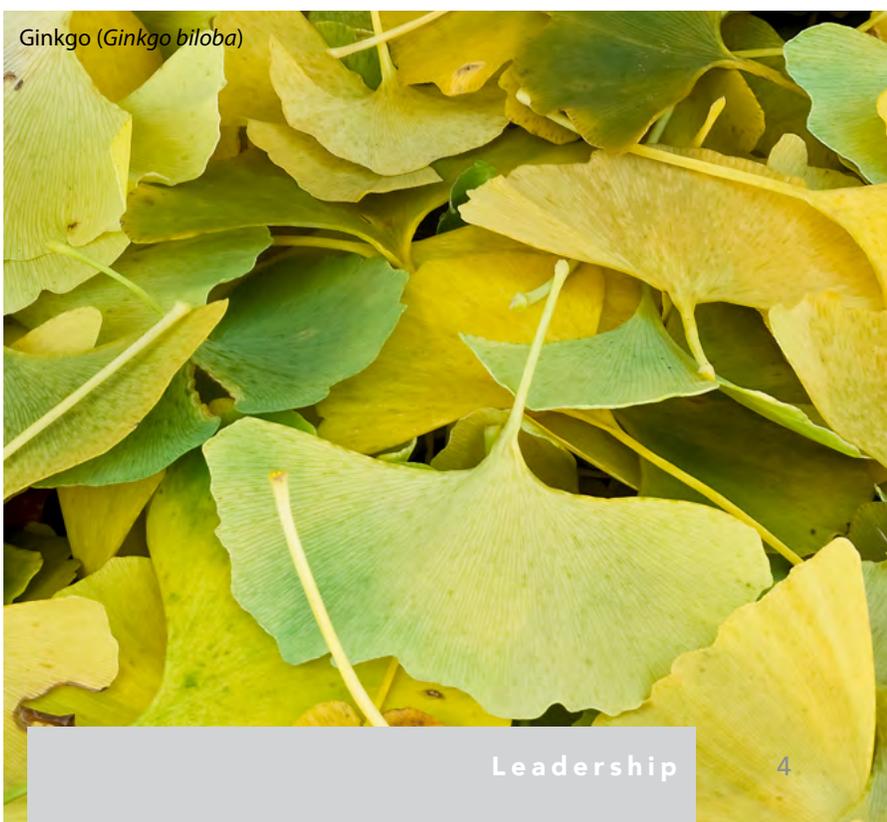
*There is nobody
else to wait for.*

Tom Chi
Google X

LEADERSHIP: CREATING A CULTURE OF SUSTAINABILITY and REGENERATION

A commitment to building sustainable and regenerative supply networks and companies requires moving toward more holistic and humane metrics, putting growth in the service of life, not, as things currently stand, i.e., life in the service of growth. Such a shift requires a fundamentally different mindset than running a business simply for the sake of stockholders. To make meaningful action, senior management, founders, key personnel, and board members must be willing to make decisions that impact the bottom line, making choices for people, the planet, as well as profit. This depends on strong leadership and a clear mission statement. A company can be both profitable and sustainable.

For example, the annual performance evaluation of employees (those working in the departments responsible for procurement, supply chain, sustainability) must include positive scores for demonstrating that economic, environmental, and social sustainability measurements are improving in their botanical supply chain. Equally, look at these mid-to-long-term investments in building secure and stable supply networks as investments for the company and savings on the bottom line, due to reduced out-of-stock supplies, last-minute panic buying, etc.



Ginkgo (*Ginkgo biloba*)

LEARN

- **The Responsible Company: What We've Learned from Patagonia's First 40 Years** by Yvon Chouinard and Vincent Stanley articulate the elements of responsible business. This book is a clear, concise place to begin.
- **Building a Regenerative Culture at Pukka Herbs: Read this case study** with Sebastian Pole co-founder of Pukka Herbs about how Pukka developed and implemented their vision of sustainability.
 - **Value and Mission:** Have a clear mission and ensure that it is embedded in the culture of the company. Sebastian outlines the ways Pukka accomplished this in the case study.
 - **Leadership:** Have a good board, invest in good leadership; people are your business, have a mission council of experts.
 - **Third-Party Certifications** are a way to ensure you are practicing what you claim and challenge you to go further.
- **Future of the Corporation** — A research program led by the British Academy on the current state and future prospects of business. The Academy has published a series of reports exploring how the business community should respond to the challenges facing society, including climate change, inequality, declining trust, and technological disruption. Future plans include a series of summits exploring how a purpose-driven business can deliver change for society.
- There are several leadership training programs that go beyond traditional management models. Here are two of our favorites:
 - **Presencing Institute** founded by Otto Scharmer using what he calls Theory U offers resources and free online courses that go beyond systems thinking to look at the internal changes that leaders need to make to create a culture/climate in which enduring change can take place.
 - Carol Sanford is a prolific writer on Regenerative Business Leadership. This detailed **case study of a company** outlines a company's journey from sustainable to responsible to conscious company from what she calls a living systems perspective.

ACT

- What is your company's mission statement?
- Is sustainability included? Is it in the directive and goals of each department in your company?
- Does your company's Human Resource Department and recruiting team have directives to hire people who are committed to fighting the climate crisis?

DIG DEEPER

- If your company is already addressing many of these issues, how can you use your leadership to influence the industry, bringing steps taken internally to a scale where they can have a greater impact?
- What can you do on an industry-wide level to help create a culture in which collaboration, cooperation, and transparency are valued and rewarded?



Gentian (*Gentiana lutea*)



Witch Hazel (*Hamamelis virginiana*)

MAKING THE BUSINESS CASE WHAT IS SUSTAINABLE/REGENERATIVE HERBAL MEDICINE?

Biodiversity loss and the climate emergency threaten the raw materials on which the natural products industry depends. If there are no plants or no soil in which to grow the plants, there will be no industry or consumers to buy the products the industry produces. **Companies** are recognizing that addressing these environmental issues is an essential risk-management strategy.

LEARN: Why Invest in Sustainability?

- Investing in sustainability—from waste to sourcing—saves money. Based on research conducted in 2016 with 153 companies across the globe with revenue of at least \$250 million, Pure Strategies found that benefits from sustainability actions reached several billion dollars. Survey respondents reported benefits across three areas: greater productivity, reduced risk, and enhanced growth (brand loyalty). See the [research summary here](#).
- Kate Williams, executive director of 1% for Planet, said that companies in their network report greater employee engagement, stronger sales, growing brand awareness in connection to their commitment to credible sustainability commitment, and effective storytelling.
- Watch “**Business is ready to step up investment in nature,**” a 2 ½ minute video by the World Business Council for Sustainable Development (WBCSD) on why it is essential for businesses to address environmental impacts.
- **Consumers** are demanding it. Studies indicate that purchase decisions are moving toward what the Natural Marketing Institute (NMI) calls a ‘whole health’ perspective where individual health concerns merge with concerns about the health of the planet. They found that 69% of Herbal Supplement users lean toward focusing on health and sustainability and 86% of these users prefer supplements made by an environmentally friendly brand. Not only do consumers care about socially responsible business practices, they want evidence that a company is truly walking the talk and not just greenwashing.

*Rather than asking whether you can afford to take action, ask whether you can afford **not** to take action in costs of being out of stock, panic buying, shortages, loss of customers and their loyalty, and more.*

- Similarly, in their **2019 Sustainability Report**, the Hartman Group found that in 2019, **51% of consumers purchased sustainable products because they were better for the earth and the environment, up from 32% in 2017**. The report also found that 26% of consumers say they will pay more to support companies that support a worthy cause 28% say they will pay more to support companies that share their values.
- **Employees** want to work at companies that are addressing climate change and other pressing environmental issues. The **2018 Global Talent Trends** study by **Mercer** found that employees working for a company with a strong sense of purpose are three times more likely to be thriving.
- **Ethics.** It is the right thing to do.

TAKE ACTION

Ask: What is at stake if my company does not take action?

Rather than debate whether you have the resources or wherewithal to take on more initiatives, ask what is at stake if your company does not take action?

- What are the risks of climate disruption and loss of biodiversity on the supply of consistently high-quality botanicals? See: **Plants in Peril: Climate Crisis Threatens Medicinal and Aromatic Plants**, the seminal November 2019 *HerbalGram* article for more information.
- What are the risks of urban migration on the continued growing, harvesting and processing of botanicals?
- What are the risks of political instability due to increased migration from environmental disruptions, including loss of topsoil, water scarcity, flooding, sea level rise, and more?

Rather than asking whether you can afford to take action, ask whether you can afford **not** to take action in costs of being out of stock, panic buying, shortages, loss of customers and their loyalty, and more.

How can you build that sense of urgency into day-to-day decision-makings and actions?

DIG DEEPER

Resources on the Business Case for Taking Action:

- **CEO Guide to the Circular Bioeconomy** — developed by **World Business Council for Sustainable Development (WBCSD)** in cooperation with The Boston Consulting Group and signed by 16 CEOs from leading companies, presents a business case for establishing a circular

bio-economy that addresses five environmental priorities: climate change, biodiversity loss, land use change, food loss and waste, and resource scarcity. The WBCSD website provides free resources and case studies on utilizing business to accelerate the transition to a sustainable world.

- **Business for Nature** is a global coalition providing resources that communicate the business case for reversing nature loss and demonstrate that addressing the nature crisis brings significant opportunities.

Read what other companies are doing:

- **Made for Change** outlines VF Corporation's (an American worldwide apparel and footwear company) Sustainability and Responsibility Strategy and includes **traceability maps** for key
- **Danone's Materiality Matrix** outlines how Danone uses their materiality matrix to define their Corporate Responsibility strategy and identify their priorities.
- **General Mills** has extensive resources specifically on how they are addressing sustainability in specific focus areas: climate change, ecosystems, food waste, regenerative agriculture, and more. They also share resources on their broader approach to being a responsible company, summarized in their **Global Responsibility Report**.
- **Walmart's open source self-assessment tool** — Part of their Responsible Sourcing Program.



Goldenseal (*Hydrastis canadensis*)

HOW TO BEGIN

In their book ***The Responsible Company*** Yvon Chouinard and Vincent Stanley of Patagonia summarize their process for beginning to take action:

1. **Research** both the issue and your own company. What are some of the best things your company does? What areas need improvement? What are some of the worst things your company does? What bothers you the most whenever you hear about it? What problem do you think your company will be good at taking on?
2. **Act.** Decide what to do. Name your priorities. Determine how much time and money you will spend and define success.
3. **Tell stories.** Share what you learn. As you begin making changes, build on the trust you earn from your employees and customers and the confidence in what you have accomplished to ask what can I do next? Telling stories also builds collaboration and inspires others to take steps they might not have otherwise had the courage to take.

There are several tools available for making the transition to sustainable and regenerative practices. We outline three below. Pick what is most relevant to your needs and dive in.



Calendula flowers (*Calendula officinalis*)



Herb drying in market, Ho Chi Minh City.

TOOLS: TRUE COST ACCOUNTING

Actions taken without questioning the fundamental question of growth will have trivial effect in addressing the root of the problems we now face. And so taking action that will make a difference begins with accurately documenting the impacts of the operation—and growth—of a company on the ecosystems on which that operation and growth depends. This means asking, as author and systems thinker Donella Meadows asked many years ago, “Growth of what? Growth for what purpose? Growth for whom? How long can it last? What is the cost to the planet? How much is enough? Paid by whom? And for whom? When will we have enough?”

If it seems that paying attention to the impacts on the environment is an added cost, that is simply because our way of valuing services does not take account of the actual impacts.

True Cost Accounting is a type of bookkeeping that calculates not only the typical financial values but also the impacts on the natural and social environment in which the company operates, calculating the hidden costs of production, the externalities—water pollution, greenhouse gas emissions, soil erosion, biodiversity loss, health costs such as obesity from poor nutrition—that are typically off-loaded into the future or relegated to the bottom of the supply chain.

These impacts represent the true costs of a product, which typically are not reflected in the actual price. True cost accounting assumes these externalities should be addressed at the beginning of the chain, not at the end, and in the present, not the future.

LEARN

- **True Cost Accounting: The Real Cost of Cheap Food** — A two-minute video explaining true cost accounting and why it is important. The video is part of an excellent video series, **The Lexicon of Sustainability**, which includes numerous educational videos defining key concepts in sustainability, including growing organic food, antibiotics in food, food security and many more.

Nowhere in healthy life do you find unlimited, linear growth. Rather you find bounded growth embedded within a context, and you find regulated processes of death and decay that accompany any growth process. The idea of a growth economy in capitalism is not an idea grounded in any understanding of healthy life processes.

Craig Holdrege
Author, *Thinking Like a Plant*



- **This video** produced by International Panel of Experts on Sustainable Food Systems (IPES-Food) shows the true cost of cheap food, issues that apply to cheap botanicals as well.
- **The Sustainable Food Trust** — A UK-based organization focused on sustainable food and health has compiled a wealth of resources on the true cost of food. This includes research reports, films and podcasts, and summaries of panel discussions among leaders in this movement.
- **Soil and More** — A consulting company that utilizes true cost accounting to help create resilient food and agricultural supply networks.
- **TEEBAgFood** (the Economics of Ecosystems and Biodiversity or Agriculture and Food) — commissioned a series of exploratory studies to measure the full range of impacts and externalities to identify “full cost pricing” of food. There is a lot of detailed research on this site; **Measuring what matters in agriculture and food systems** is a synthesis of these studies and a good place to begin.

ACTION

- **Where does the Money Go?**

As an internal exercise, create an infographic for a finished product you produce, tracking what percentage of money goes to raw material, how much to transportation, manufacturing, packaging, energy, marketing, etc. Do not worry about being completely accurate; the idea is to use the exercise to reflect on broader questions, including the following:

- Does the flow of money reflect your mission and the values of your company?
- What is not included? That is, what is the impact on water, pesticide run-off, solvent disposal, etc.?
- Where are the greatest discrepancies?
- What is one thing you can do to respond to these discrepancies?



Distilling wild sage (*Salvia officinalis*) in Montenegro.

TOOLS: CREATING SHARED VALUE

LEARN

- Creating 'Shared Value' or 'profit-driven social impact' is an approach based on the recognition that a company's financial success and its social progress are interdependent. Rather than an add-on, creating shared value is a core business strategy.
 - This **two-minute video** from the consulting firm FSG provides a clear introduction to shared value. This link also takes you to a one-hour webinar providing more in-depth information on applying this concept in business, including case studies.
 - **The Building Blocks of Creating Shared Value** outlines the 10 'building blocks' for successfully creating shared value.
 - **Measuring Shared Value** provides a framework to measure the connection between social and business results, which is key to the success of a shared value approach.

ACTION

- **Take the Shared Value Readiness Assessment** — This assessment includes 8 questions about company mission, leadership, organizational structures, incentives and company culture.
- Take the next steps identified, based on your responses in the assessment.

Turmeric (*Curcuma longa*)





Chamomile (*Matricaria chamomilla*)

TOOLS: B CORPS ASSESSMENT

The B Corp model is based on shifting from being a company that is answerable to its shareholders to one that is responsible for its stakeholders, beginning with the environment. The B Corps process goes into much more depth on all the topics outlined in this tool kit. It also requires significant investment. The B Corps assessment tool is a good place to begin measuring where your company stands in terms of social and environmental responsibility and how ready you may be to begin the certification process.

LEARN

- Read the **SHP case study with Banyan Botanicals** outlining their journey to become a B Corp, providing a detailed account of what it takes to go through the process, the challenges, and the benefits.

Key Take-aways from Banyan's Journey

- It is essential to have buy-in and support from the CEO, CFO, and leadership team on the value of B Corp Certification.
- Start with the **Quick Impact Assessment** to get your feet wet.
- Once you are ready to dive into the full Impact Assessment, start with the workers section, as B Lab recommends. There are five sections in all. Once you complete the free assessment, you can identify the lower hanging fruit and start with that.
- Brief the entire company that this is coming, and it will involve work and commitment.
- Have one person at the company act as the main "B Corp Champion" entering the answers to all questions into the assessment, but exporting the questions into a shared Smart Sheet or Google sheet as a working document so that each stakeholder can answer their specific questions when they have time.
- It may also be helpful to give each internal department champion (such as an HR Manager and Supply Chain/Purchasing Manager) a tour of the online assessment to give them a birds-



eye view, generate excitement, and get buy-in before starting the assessment and assigning questions.

- If you can enlist the support of a consultant, it may save your organization loads of time (and therefore money!). Contact erind@banyanbotanicals.com for suggestions.

Additional Research:

- In partnership with the UN Global Impact, B lab has launched the **Sustainable Development Goals Action Manager** which allows a company to combine the B Corp self-assessment to measure against progress in achieving Sustainable Development Goals.
- **Committed to Higher Standards: Natural Products Companies Turn to B Corp Certification**, by Karen Raterman, published in *HerbalGram* 120:32–37; 2018, provides a thorough introduction and overview of B Corps in the Natural Products Industry.
- **B Corps Library** — Webinar, reports, and case studies to guide companies through the B Corps assessment process, answer questions, and more.

ACTION

- The **B Corps quick impact assessment** is a great tool to see where you stand even if you aren't ready to become a certified B Corp. The tool will show you what you are doing well and where you need to do more work.



Extracting jasmine oil (*Jasminum officinale*)

FROM SUPPLY CHAIN TO VALUE NETWORK

Once a company has a clear mission statement and a commitment from leadership, the next step is to determine how well you understand the supply chains—or value networks—on which your business depends.

Transparency is increasingly required by regulations and is expected by consumers. How transparent is your supply chain? How much do you know about the raw materials you source and the farmers and collectors who produce them?

LEARN

- Watch the SHP video, **Quality and Sustainability**, for a discussion of why transparency and traceability is crucial to the quality of the finished product.

Key takeaways:

- Paying attention to the whole supply chain, including biological and cultural diversity, is key to the quality and batch-to-batch consistency of the finished product.
- Building relationships and ensuring transparency and traceability are essential. This requires hard work and significant investments.
- Buying consistently high quality raw materials requires long-term planning and investments in the farmer and collector communities, not short-term price buying.

Questions to Consider:

- Do you know where the herbs come from? Have they been properly identified?
- Do the buyers from whom you purchase bulk herbs know where the herbs come from? If not, how can you find out?
- Are the suppliers you are working with compliant with federal and international codes concerning the growing, processing, sale, holding, and distribution of regulated plant material?
- Do you trust your suppliers to establish and handle the relationships with the producers? With the growers and collectors responsible for cultivating and harvesting the herbs?

People talk about quality problems. The answer is pretty simple. You find out where things come from. You go there. You develop relationships. You visit and you know what you are buying. You can avoid a lot of problems that so many American companies find themselves in just because they do anonymous buying. They do price buying and they don't know where anything comes from. If you invest in quality assurance and sustainability, you can get rid of most of your problems.

Josef Brinckmann
Traditional Medicinals

Ginkgo (*Ginkgo biloba*) leaf harvest.





Hyssop (*Hyssopus officinalis*) crop



Chamomile flowers (*Matricaria chamomilla*)

- How are climate change, loss of biodiversity, political upheaval, and other risks currently impacting your raw material supply, and how are they likely to impact it in the future?
- What are you currently doing—or will you be doing in the future—to enhance the resilience of the communities—the harvesters, the farmers, producers—from whom you source to withstand these risks?
- What are you doing to encourage the next/following generation(s) to continue the tradition?

Key Issues

- **Decision-making** — The executive team must listen to and plan with those involved in sourcing. If you are responsible for purchasing and sourcing, how can you engage upper management in the issues and challenges you face?
- **Inventory** — How much material is kept in inventory? Is it sufficient that you can handle a spike in demand or a crop failure and still be able to source high quality, sustainably harvested and/or grown raw materials?
- **And the key question: Is your company willing to pay a higher price to secure and ensure a future supply of the raw materials on which your business depends?**

ACTION:

Map your supply network

- As the **B Corps assessment** makes clear, a responsible company is not only responsible to its shareholders, it is responsible to the stakeholders on which that company depends. These stakeholders include employees, customers, communities, and nature.
- If you have not done so already, try mapping the number-one botanical that your company uses (in value and/or quantity) from seed to shelf, including all the networks or communities that handle the raw material. Include seed companies, growers, collectors, producers, harvesters, secondary production personnel and processes, finished product manufacturing, and transportation. Do not worry about the detail; do this quickly to get a general idea.
 - What do you (and your suppliers) know about

the ecosystems, the cultures, the economies of the communities where these environments are based? What don't you know about those environments?

- How do you know what you know? (That is, information from site visits, audits, word of mouth, etc.)
- What do you know about the impact of your involvement in this community on the following areas?
 - Socio-economic conditions — Are jobs generated? How much money is made and how does that compare to other jobs available?
 - The environment — What is the impact on soil quality? Water quality? Air quality? What is the impact of runoff (pesticides, fertilizers, manures, compost) in water systems or of drift to neighboring farms, to schools and communities?
 - In partnership with the UN Global Impact, B Lab has launched the **Sustainable Development Goals Action Manager** which outlines steps needed to make progress in achieving the UN Sustainable Development Goals. These questions are a good place to begin assessing your impacts.

Next Steps

- Map what you want your supply chain to look like in 1, 3, 5, 10, and 15 years. What actions do you need to take now to ensure that you can achieve this vision?
- How can you balance immediate purchasing needs with planning to reach these goals?

ADDITIONAL RESOURCES

- **Patagonia: The Footprint Chronicles, VF Made for Change, and Marks and Spencer** offer excellent examples of how to approach sustainability in complex supply chains in different sectors. They provide maps of where the raw materials are sourced and/or manufactured, videos and information about the processes used, and links to finished products with some or all these materials.
- **Sourcemap** — provides technology to help companies map and visualize their supply chains, identify risks, and share stories with their customers. In addition to this service, their website includes free resources and white papers on different aspects of achieving traceability in your supply chain.
- **The Coffee Traceability Platform** — developed by Sourcemap, is a secure enterprise cloud that streamlines supply chain management for coffee and offers a model of how the platform can be used



for other commodities.

- **“What Supply Chain Transparency Really Means”** — by Alexis Bateman and Leonardo Bonnani and published in the *Harvard Business Review*, provides an overview of the value of transparency, what it means, and how to begin.
- **“The Potential of Blockchain for Herbal Supply Chain Management,”** — by Karen Raterman and published in *HerbalGram* 123:52–61; 2019, discusses the use of blockchain technology as a tool for transparency and supply chain management in the botanical industry.
- **Life Cycle Assessment** — A life cycle assessment is the factual analysis of a product’s entire life cycle in terms of sustainability. **Open LCA** is a free open source life cycle and sustainability assessment tool. This case study of the **life cycle assessment of a t-shirt** provides an example of the questions to ask/types of information to consider.
- **Sustainable Food Trade Association** offers resources for mapping and improving agricultural networks (see more under Partnerships).
- **Sustainability Boot Camp** offered by NSF International provides specific resources and tools for mapping, life cycle analysis, materiality studies, and more. Contact NSF for information on when this course will next be offered.



Thyme (*Thymus vulgaris*)

For those needing an overview of the processes involved, see the following:

- **The Botanical Supply Chain: A Deeper Look. The Supply Chain** offers videos and information on the key stages in the journeys that botanicals take from source to finished product.
- **Quality Control and Testing**: This video provides a step-by-step explanation of how to implement rigorous quality control and assurance standards and is an excellent introduction for those not familiar with these procedures.
- **Good Agricultural Practices**: Ensure that your suppliers practice **Good Agricultural Practices**. The American Herbal Products Association (AHPA) has an in-depth set of **free guidance documents for implementing and documenting best practices**. Ben Heron, previously Sustainability Manager at Pukka Herbs, developed a **set of training tools** for introducing GACPs to farmers in South Asia that also provide an excellent foundation for wider implementation of these standards.
- Controlling the supply from seed to shelf is one way of preventing or limiting adulteration. The ABC-AHP-NCNPR **Botanical Adulterants Prevention Program** (BAPP)—a partnership among the American Botanical Council (ABC), American Herbal Pharmacopeia (AHP), and the University of Mississippi’s National Center for Natural Products Research (NCNPR —is a large-scale, international research and educational program that informs responsible members of the global herb and dietary supplement industry about ingredient and product adulteration and fraud.

As herbalism becomes popular again, nothing could be worse than our trying to promote awareness around using plants and to then harm the earth in that process. That would be an oxymoron.

Sebastian Pole
Pukka Herbs

Echinacea (*Echinacea purpurea*) farming



SOURCING RAW MATERIALS: WILD-HARVESTING

LEARN

Thirty thousand plant species are said to be used for medicinal purposes and 4000–6000 species are traded internationally. By number of species, around two-thirds of the herbs in commerce are sourced from the wild. One in five plants is assessed to be threatened by over-harvesting and habitat loss.

Equally important, in many places, rural migration to urban areas means fewer people are willing to do the arduous work of collecting wild plants. As younger generations move to the cities, the traditional knowledge of these plants and sustainable harvesting techniques are being lost. This rural-urban migration is a risk not only to the supply of medicinal plants for markets. When generation after generation has been harvesting the same plants from the same 'general' area, they have learned practices to steward those plants. Otherwise, they would not be able to support their families through the years. Markets for sustainably harvested plants provide a financial incentive to conserve the lands on which these plants grow.

- **Biodiversity and FairWild**, a 3-minute SHP video, explores the relationship between cultural and biological diversity and the responsibility of companies to support rural livelihoods.
- **Wild harvesting medicinal plants**, a 6-minute SHP video, provides a behind-the-scenes view of wild harvesting in eastern Poland.
- **Wild crafting in Appalachia**, a 10-minute SHP video, documents the tradition of wild crafting botanicals from Appalachia.
- **SHP Blog posts: Digging Roots in Appalachia**, among numerous others.

Questions to Consider:

- What wild-harvested plants does your company use and what do you know about the ecological sustainability of current harvesting/management practices, and socio-economic conditions of the communities where those plants grow?

- What is the conservation status (see below) of these plants? What are the threats to it?
- Do you work directly with your wildcrafters? If not, how many traders and/or intermediaries are between you and the wildcrafters?
- Do you or your supplier have an ethical wild harvesting agreement that is updated each season? How do you ensure that the wild harvesters from whom you are buying plant materials are harvesting in sustainable way? How do you validate this information?
- What are you—or your suppliers—doing to ensure that the wild harvesters are being paid a living wage?*
- How do you validate what you are told to ensure that that information is accurate?
- What information do you have about state and national regulations about harvesting particular plants?

What is the species conservation status?

The **International Union for Conservation of Nature's (IUCN) Red List of Threatened Species** brings together the world's most comprehensive information on the global conservation status of animal, fungal, and plant species. The IUCN Red List measures the pressures on species based on a set of quantitative criteria that estimate the risk of extinction. This list is an important indicator of the health of the world's biodiversity and a powerful tool to educate and catalyze action for biodiversity conservation.

Unfortunately, many medicinal and aromatic plants have not yet been assessed. To date, only around 7% of ca. 28,000 species that have well-documented uses as medicinal and aromatic plants have been assessed against the extinction threat criteria of the IUCN Red List (and nearly 20% of those are believed to be in urgent need of re-assessment). Based on these assessments, one in five of the world's medicinal and aromatic plant species is threatened, i.e., assessed as Critically Endangered, Endangered, or Vulnerable under the IUCN threatened species criteria.

*Living wage is a specific term. The Global Living Wage Coalitions definition of living income is, "The net annual income required for a household in a particular place to afford a decent standard of living for all members of that household. Elements of a decent standard of living include: food, water, housing, education, healthcare, transportation, clothing, and other essential needs including provisions for unexpected events." For more information see the **Global Living Wage Coalition**.

Mullein (*Verbascum* sp.) flower harvest



The proportion of threatened plants varies considerably from region to region, and comprehensive assessments of this group of species are needed. In North America, for example, IUCN Medicinal Plant Specialist Group, Albuquerque Bio-Park, and NatureServe are collaborating on assessing all North American medicinal and aromatic plants, an effort that requires further investment and additional collaborations.

A selection of various databases provides information about medicinal and aromatic plant species:

- **CITES — Checklist of CITES Species**
- **ENVIS Indian and Global Species Database**
- **GBIF — Global Biodiversity Information Facility database**
- **IUCN Red List of Threatened Species**
- **NATURESERVE EXPLORER**
- **NBA — National Biodiversity Authority, Government of India** (links to lists of species of plants which are on the verge of extinction)
- **SPECIES+** (includes conservation and national regulatory controls info for both CITES-listed and non-CITES-listed species)
- United Plant Savers (**UpS) Species At Risk List**
- **Plants in Commerce** — SHP is compiling profiles of plants in commerce that discusses issues relating to sustainability, trade and sourcing. We will continue to build this collection, which now includes black cohosh, saw palmetto, turmeric, and oshá, among others.

Wild goldenseal (*Hydrastis canadensis*)



TAKE ACTION

Pick a plant

In the SHP blog post, "**Pick a Plant,**" Josef Brinckmann outlines steps for becoming more invested in the supply networks from which you source botanicals. For a more in-depth discussion, see Josef's complete post. Key steps include:

- Prioritize:
 - **The Wild Dozen** — FairWild has compiled a list of twelve species that are important in trade, are wild-harvested, and susceptible to harvesting pressure and/or unfair trading practices. This list is a good place to begin.
 - If you source any of these plants, identify which are most important to your company.
- Pick One and Dive in
 - Gather information about sourcing and the communities/ecosystems involved.
- Go to the Source
 - Do a site-visit — How does the plant grow? What is the ecosystem? Who are the people involved? What are their lives like? What are the conditions of the region and the country? What challenges do they face?
- Pick one issue that needs to be addressed and begin addressing it.

DIG DEEPER

1. Source Certified Wild Harvested Plants

- **Certified Organic Wild** — Certified organic standards for wild products requires that the plants are harvested from designated, certified areas where chemicals have not been applied. There are some wild-harvested products that become certified organic because an organic certification agency will come onto the land on which an herb is wild-harvested and certify the land prior to wild-harvesting the plant material. Because these regulations are vague about the requirements of organic wild collection (in terms of site requirements, traceability, and resource management protocols to ensure sustainability), there is variation in how reliably they ensure that wild plants are not being overharvested.
- **FairWild Standard** — The FairWild Standard is a best practice standard for sustainable wild harvesting and equitable fair trade. Created through a multi-stakeholder consultation process, the FairWild standard represents some of the best thinking on **implementing social and ecological standards** to promote cultural and ecological diversity. Whether or not you join the standard, the guidelines are an excellent guide for assessing your sourcing practices.
 - See additional **SHP videos on the FairWild** standard.
- **Forest Grown Verified Program (FGV)** — FGV is a voluntary, third-party verification for non-timber forest grown products that are produced and harvested in a sustainable and legal manner. The certification is now managed by United Plant Savers.
- **The Union for Ethical Biotrade/Utz** — The Union for Ethical Biotrade has recently released Guidance documents on **Biodiversity Action Plans** on farming practices. This is another document to use as a guide, whether you join UEBT or not.

2. **Develop Internal Wild Harvest Management Plans** — Self-assessment tools for sustainable wild harvesting practices can be based on available tools whether a company goes through certification or not.
- **Free guidance documents** on how to do resource inventory, how to do a management plan, how to ensure trade practices are fair, etc. These are linked to FairWild, but also include information on how to approach these issues.
 - **Wild Collection Assessment Tool** — The American Herbal Products Association (AHPA) has a free tool to ensure wild collection practices yield properly identified botanicals materials of the desired quality in a sustainable manner.
 - **United Plants Savers Risk Assessment Tool** — A tool to quantify and compare vulnerability to overharvest for wild-harvested medicinal plants. See an example of this tool in practice in the studies **on oshá harvesting led by Kelly Kindscher, Ph.D.**
 - **Wild Harvest Management Plan** — Ben Heron developed this a plan for his company *Biolaya*, based on the guidelines of FairWild. It is an example of how a company uses existing standards for internal monitoring.
 - **FairWild risk classification** — Using the IUCN MPSG methodology, Danna Leaman and Uwe Schippmann perform a risk analysis of specific wild-harvested species. The risk analysis is described **here**. This report is offered as a fundraising tool for FairWild and so utilizing their services can be a way of supporting the program without entering certification. Contact: **secretariat@FairWild.org** to learn more.





3. **Find Cultivated Sources** — Can you source cultivated plants in ways that are grown more closely to the wild, both to maintain the phytochemical profile and further principles of regenerative agriculture?
4. **Invest in Research** — NGOs have a plant adoption programs as a way of supporting the research of nonprofits performing or sharing research on specific plant or plant group. Below are specific examples of research needed to assess and respond to the conservation status of medicinal plants.
 - **Support sustainability studies** — There is a lack of the solid scientific data on plant populations, harvesting volumes, and regeneration that is essential to developing sustainable harvesting practices for wild-harvested species. **See the SHP Blog: Is Oshá being Over-harvested?** for an example of one such study.
 - **Support in situ and ex situ conservation practices** — **Center for Plant Conservation (CPC) Best Plant Conservation Practices to Support Species Survival in the Wild:** recommendations on collecting and storing seed, increasing seed from small samples, and using alternative storage and propagation methods, such as tissue culture and cryopreservation.

Wild-harvested bay leaves (*Laurus nobilis*)





Harvesting saw palmetto (*Serenoa repens*)

Unfortunately, many medicinal and aromatic plants have not yet been assessed. To date, only around 7% of ca. 28,000 species that have well-documented uses as medicinal and aromatic plants have been assessed against the extinction threat criteria of the IUCN Red List (and nearly 20% of those are believed to be in urgent need of re-assessment).

Example of WILDCRAFTING STANDARDS (by Pacific Botanicals)

We respect our wildcrafters and the heritage they bring to our industry. We strive to preserve the legacy of collection practices for gathering plants in wild ecosystems. We use only wildcrafters who adhere to our policies. Here is a list of the criteria we require of our harvesters.

- **Location and Ecological Niche:** We seek areas that are free of contamination from roadways, housing, poor water, and air quality. We require a description of area, slope, direction, and proximity to streambeds.
- **Percentage of Population Harvested:** We seek to protect pristine stands of herbs from being over-harvested by determining what percentage of species was harvested and when the area was last harvested, to help allow stands to regenerate for future gathering.
- **Handling Methods:** We seek skillful selection with expert knowledge of species. Careful separating, garbling, drying, and cleaning of product ensure herb purity and vitality.
- **Consistent and Accurate Record Keeping:** Harvest protocol sheets are required which include time of day, temperature, weather conditions, and a description of the area; public or private land, logging condition, distance from the road, power lines, and any known history of pesticides or fertilizers for each lot we receive.
- **Personal Guarantee by the Wildcrafter:** Each independent wildcrafter must demonstrate an adherence to the highest standards and must personally guarantee that each herb has been ecologically harvested. They must show regard for the integrity of the plant population and environment and obtain any verification of species required from a botanist that may be necessary.

SOURCING RAW MATERIALS: CULTIVATED HERBS

It is now in the interest of the trader to make sure that good farming practices are in place, because otherwise the changing climate will drive up prices.

Tobias Bandel
Soil and More

LEARN

There is a vast range in the size of herb farms, from 2–3-acre plots of diversified crops to large-scale fields where a single crop of calendula or thyme or artichoke grow as far as the eye can see. Some are certified organic. Many more are not.

- Watch the SHP videos — **Quality and Sustainability in the Herb Industry** and **What is Sustainable Herbalism?** provide an overview of the many of the relevant and compelling issues in sourcing cultivated herbs.

Issues in growing medicinal and aromatic plants:

- **Loss of Topsoil** — At the current rates of soil degradation, the world's topsoil could be lost within 60 years, **a senior UN official has said**. Herbal products companies are already **experiencing disruptions in their supply chains**, including shortages from unprecedented rains, droughts, fires, hurricanes, and other weather events caused by climate change. These disruptions will most likely only increase in the future.
- **Pesticides of unknown origin** — Pesticides of unknown origin are increasingly showing up in certified organic wild-harvested plants and so those plants do not pass inspection. Watch the SHP video **We Can't be Well Until the Planet is Well** discussing the increasing problems of non-point contamination in the botanical industry.
- **Nutrient Density** — Declining soil quality is leading to decrease in nutrient density in food and so, in turn, in botanicals. **New Vegetable Systems Trial** — A new trial conducted by the Rodale Institute looking at relationship between quality of soil and nutrient density, working with medical practitioners to make links between soil health and human health, a connection that is not always recognized by those practitioners.
- **Urban migration** and declining numbers of farmers. It is becoming more and more challenging to find farmers around the world and to retain good farmers.

Conventional vs. Organic vs. Regenerative?

- **Farming Systems Trial** — Rodale Institute conducts long-term scientific research comparing conventional and organic farming methods on yields, soil health, nutrient density, and chemical runoff. They have now added a research component looking at organic tilled and no-till practices.
- It is essential to consider not only the effect of pesticides and fertilizers on the finished food product, but also on all the human and ecological communities impacted throughout the supply network, including impacts on pollinators, worker health, water runoff, pesticide drift, and more.

REGENERATIVE FARMING

Increasing the resilience of farms is a key strategy to address the climate crisis and ensure a more stable source of raw materials for your business. Regenerative agriculture builds soil health which in turn supports greater socio-economic health and resilience, which in turn supports farmers as they adapt to changes in climate. Innovative initiatives are taking these ideas further and thinking not just about regenerative agriculture but regenerative businesses, thinking about their business not as a machine, but as a living system.

Three-quarters of the world's food supply comes from just twelve crops and give livestock species. Medicinal herbs grow well in mixed cropping or agroforestry and they potentially add tremendously to agrobiodiversity.*

Biodiversity and Agriculture

- **The Agrobiodiversity Index** is a tool to measure agrobiodiversity and recommend action to support biodiversity in food and agriculture. The first **Agrobiodiversity Index Report: Risk and Resilience** published in 2019 brings together these data from 10 countries to measure food system sustainability and resilience.
- **Mainstreaming Agrobiodiversity in Sustainable Food System** — Produced by **Biodiversity International** and published in 2017, this book and website summarizes evidence on using agrobiodiversity to develop more resilient food systems, reversing environmental degradation, combating climate change, and reducing poverty and malnutrition.
- **The State of the World's Biodiversity for Food and Agriculture** — A summary of the 500-page report, this is the first global assessment of biodiversity for food and agriculture produced by the WHO's Food and Agriculture Organization (FAO). Highlights from the report are shared on the **FAO website**.

*Impact on Human Health: Through direct and indirect exposure, an estimated 20,000 unintentional deaths occur every year as a result of pesticide poisoning 35, while causing acute adverse health impacts to anywhere between 1 and 41 million people 36. **TEEB for Agriculture and Food Interim Report** 2015, page 7.

Turmeric (*Curcuma longa*) root harvest



Regenerative Agriculture in the Natural Products Industry:

Below are some excellent resources to get you started in understanding the concepts of and principles of regenerative agriculture:

- **Rodale Institute** has resources on their research into the science to uncover the most effective, efficient, and regenerative farming practices.
- **Kiss the Ground** provides educational content on regenerative farming. It has resources and trainings targeted to farmers and rancher, chefs, business leaders, and others.
- **General Mills regenerative** has a wealth of detailed resources available, including overviews of **Regenerative Agriculture** and **Ecosystem Health** and the **Regenerative Agriculture Self-Assessment v2.0**. In partnership with The Nature Conservancy (TNC), General Mills published **Re-thinking Soil: A Roadmap to Soil Health**. The webinar, "**How Big Food Can Drive Big Change: General Mills' Commitment to Regenerative Agriculture**," discusses broad issues about regenerative agriculture with specific examples from how General Mills is implementing these practices.
- **Pure Strategies** produced the report, **Connecting to the Farm: How Companies are Engaging in Agriculture to Build Regenerative and Thriving Supply Chains**. This report describes the efforts of five companies—Danone North America, Dr. Bronner's, Sun World, The North Face, and Wrangler—to advance regenerative agriculture in their supply networks, best practices used, and advice to help other companies support sustainable agriculture.
- Kirschenmann Lecture at Stone Barns, "**How Big Food can Drive Big Change: Scaling Regenerative Agriculture for Everyone**," provides a broader perspective on the food system and our need to change.
- **Climate Collaborative's webinar: The Regenerative Toolbox: Developing and Implementing Self-Assessment Tools**.

For resources specific to the natural products industry:

- New Hope Network and the Climate Collaborative have organized a series of



Chamomile (*Matricaria chamomilla*) flowers drying



discussions focusing on the role of regenerative agriculture in addressing climate change. Live stream videos as well as shorter summaries of the various panels and presentations can be found at **Climate Collaborative**. **“Moving Toward Regenerative Agriculture”** (videos of the session [here](#)) is a 2018 panel at ExpoWest that was held in a room filled to capacity. The complete 2019 Climate Day recording is [here](#).

- New Hope has a **series of posts** on regenerative agriculture targeted to natural products companies, including **9 Ways Your Brand Can Support the Regenerative Movement** with some great suggestions to get started, if this topic is new for your company.

Hyssop (*Hyssopus officinalis*) crop



For additional information on two new certifications see:

- **SHP’s interview with Matt Dybala**, Farm director for Herb Pharm, about Herb Pharm’s participation in the ROC standard. **Dr. Bronner’s**, **Patagonia**, and **Rodale Institute** are leaders in developing a **new standard for regenerative agriculture**. Several companies are part of a pilot program to test this standard. The **standards** are available for everyone regardless of whether you choose to be certified or not and offer an excellent and thorough guide for improving your farming practices.
- Read **SHP’s interview with Tom Newmark** about the **Soil Carbon Initiative**, an outcome-based, verifiable standard designed to improve soil health and build soil carbon by encouraging the shift to regenerative agricultural practices. This initiative, led by **Carbon Underground** and **Green America**, champions a practice for measuring soil health that can be used by certified organic and conventional farmers to improve soil quality.

ACTION

- **Pick a cultivated plant and trace to its source.**
 - Are there plants that are traceable to the source?
 - Are there sources that are certified organic? Are there any that are grown regeneratively? Is it possible to grow this plant regeneratively by working with farmers using cover crops like milky oats that can be harvested and sold?
- Make a climate commitment to the **Climate Collaborative** for agriculture. Join Climate Collaborative’s **Rooted Community network** and get the guidance and support of some leaders in this field.

DIG DEEPER

- **Sustainable Food Trading Association** serves as a hub for businesses to learn, improve performance, communicate results, share common metrics and best practices. Membership includes access to metrics and indicators, templates for reporting, toolkits for sustainability programming, measuring and reporting, and much more. Costs are based on gross annual revenue. Information on membership benefits and applications can be found [here](#).
- **Support Farmer Training** — If your company is not vertically integrated, there are still ways to support the shift to regenerative farming practices, either through your supplier networks (see New Chapter's case study of working with suppliers) or for supporting organizations that are helping farmer's transition to regenerative practices.
 - Make a donation to **The Farmland Program**, a program of Kiss the Ground, which provides a scholarship that funds farmers and ranchers to attend an agricultural training program that best fits their needs and context.
 - Pay for farmers in your network to participate in **regenerative farming workshops through Rodale Institute**.
 - Share these **free training tools (videos)** for farmers to begin implementing regenerative farming practices.
- **Glyphosate Residue Free** — Find out more about the certification. **What Is Glyphosate? And What Does Glyphosate Residue Free (GRF) Labeling Mean?** by Mega-Food is a clear, informative explanation of why we should be concerned about glyphosate, what the labeling means, and why it is important.

Milk thistle seeds (*Silybum marianum*)



RELATIONSHIPS THROUGH THE SUPPLY CHAIN

Whether a company deals directly with producers or through brokers and contract manufacturers, relationships are the key, not only because it is the ethical thing to do but because these relationships create more reliability and consistency in your value network and, thus, in your product.

These relationships pay off in many ways. If there is a shortage of raw materials, those partners will be more inclined to ensure you have what you need. They may be more willing to invest the additional effort in meeting requirements for certifications or quality. While they do not have an immediate return on the bottom line, these relationships offer a value that is worth putting a price on.



Valerian (*Valeriana officinalis*) root harvest

There are good examples and resources for working effectively and respectfully in cross-cultural settings, so that the relationship is a partnership and not just a transaction. Do your homework. Find partners with more experience if this work is new to you and your company.

LEARN:

- **Watch — Relationships through the Supply Chain.**

This SHP video follows Sebastian Pole and Ben Heron of Pukka Herbs as they meet with suppliers in rural India. It provides a window into how this work is done and why relationships are so important for the financial success of Pukka.

Reflect

- What does it mean to really respect, promote and uphold the best practices and standards for the people along the supply chain?
 - For example, do you provide contracts? How far in advance?
 - Across the board, producer groups and primary processing facility say that a good company is one that pays on time. Or, as they told one individual responsible for sourcing, "I am not a bank." Do you pay on time? Do you pay in advance?
- There is much talk about multi-stakeholder initiatives. To what extent are multi-stakeholder initiatives truly multi-stakeholder? Does input/decision-making flow up from the ground level to top levels of companies? Or is it mostly one-directional? In what ways are you ensuring that people have the training and tools to participate and engage in a meaningful way?

- Think about moving beyond simply providing more equity to develop more equitable relationships, where producers are not just linked into a supply chain but are able to participate in real ways in decision-making, where their voices and ways of knowing have a place and lead to decision-making and action.
- Are you providing incentives to the farmers and harvesters to meet your guidelines and specifications? See this case study about MegaFood's **Healthy Farm Standard** for an example of ways to support a company to improve farming practices.
- What happens to these relationships when the person who developed them, the person who cares about them, moves on? What happens when leadership of a company reverses relationships put in place?
- Consider what communities want in terms of investments. Water? Who will maintain it? These investments can be fraught with political and economic inequities. Find partners with experience.

Resources

- **Strong Voices, Active Choices — The Nature Conservancy's Practitioner Framework to Strengthen Outcomes for People and Nature** is a detailed tool kit for recognizing and working with power differences that exist within communities and across stakeholder groups. For key points, tools, and best practices for establishing effective multi-stakeholder platforms for decision-making, see pages 42–48. For key points, tools, and resources on establishing environmentally sustainable economic development opportunities, see pages 49–55.
- **Tenure security** — **Prindex** provides data on perceptions of property rights “to help to build a world where everyone feels secure in their right to their home.”
- **Co-creative Consulting** designs multi-stakeholder networks and has a range of resources available. They are facilitating the Soil Carbon Initiative, among other complex networks.

ACTION

- Put a price on the values your company gains from developing and maintaining long-term relationships with suppliers.
- Include incentives for sourcing staff to maintain these relationships. For example, do not simply reward employees for coming in under budget; also recognize those who make a case for paying producers a bit more to take care of that relationship. This is an investment in your company's future and stability.

Milk thistle (*Silybum marianum*) seed production.



FAIR TRADE AND SOCIAL EQUITY

Urban migration is considered one of the greatest threats to the future of the botanical industry. Producing botanicals is arduous work and those harvesting and growing medicinal plants typically make the least amount in a long supply network. It is difficult if not impossible to make a living solely harvesting medicinal plants. How can your involvement in these communities help make this work part of a viable livelihood option?

When companies buy through brokers and contract manufacturers, the social and economic challenges producers face are invisible. What can you do to learn more about these conditions? And then, what can you do to begin supporting a living wage? Are there ways to provide support in the community overall? This work is easier said than done. There are resources below for beginning to do so.

LEARN

Watch the SHP video **Promoting Livelihoods the FairWild Way** about the impacts of FairWild on a community in the northwestern Ghats in India.

Or watch SHP video **Wildcrafting in Appalachia** about the challenges facing the communities from which Appalachian botanicals are sourced.

Reflect: What are the social and equity issues in the regions where the raw materials you source are grown, harvested, and processed? Are the basic needs of the farmers, producers, and harvesters met? Do they have access to clean water? Education? Are there human rights violations? How do you know?

Bibhitaki (*Terminalia bellerica*)
Photo ©2020 Ann Armbrecht



Dig Deeper

- **International Guide to Fair Trade Labels** — a 2020 reference tool to better understand the guarantees of fair trade labels, their standards, monitoring measures, and how they differ from sustainable development labels. This guide is a good place to begin understanding the issues relating to fair trade and certification.
- For more information on the two primary fair trade certifications used in the botanical industry see: **Fair for Life**, a third-party, voluntary certification standard for Fair Trade and responsible supply chains that allow sourcing of fair trade ingredients from any country (South and North). The website includes lists of certified operators and their ratings for specific criteria of the standard. **Fair Trade International** (FTI), is a third-party, voluntary certification that includes a range of economic, environmental, and social criteria that must be met by producers and traders to acquire or retain fair trade certification. FTI is focused on enabling producers in developing countries to tackle poverty through trade and is limited to products from the Global South.
- **Reference Guide to Fair Trade and Worker Justice Certifications** — Compares and evaluates leading fair trade certifications on key issues, useful as an easy comparison tool.
- **The Responsible Sourcing Tool** is a free web platform created to help visualize and understand the risks of human trafficking in supply chains. The tool includes a new section for mapping and addressing trafficking and labor risks in the **food and beverage industry**.
- **Verité** — A global, independent, nonprofit organization that conducts research, advocacy, consulting, trainings, and assessments with a vision that people worldwide work under safe, fair, and legal conditions. Verité helped Patagonia develop and roll out comprehensive Migrant Worker Employment Standards and Implementation Guidance. These standards and Patagonia's process for developing and implementing them along their supply chain are described **here**.
- **The Farmer Income Lab** — A think-do-tank founded by Mars Incorporated in 2018, works to identify and test the optimal ways to drive meaningful improvements in smallholder farmer incomes. Their website includes **briefs and insights**, including, "**Boosting farmer income: further insights from great cases**," highlighting cases from their research into ways to boost smallholder farmers' income.
- **The Living Income Community of Practice** — Resources for understanding and helping smallholder farmers achieve a living income.
- **California Transparency in Supply Chains Act** — Companies operating in California are required to comply with the California Transparency in Supply Chains Act. Participating in the equitable and fair production and trading systems provides the evidence needed to comply with the California regulation.

ACTION

- Take the **Sustainable Development Goals** (SDGs) self-assessment to see where you stand in meeting the SDGs. The SDGs are 17 social, environmental, and economic goals that frame the global agenda for sustainable development between now and 2030. B Lab has developed this online platform in collaboration with the UN Global Compact to provide companies with concrete tools to benchmark their progress to meeting these goals. This tool is meant to complement the B Impact Assessment by focusing specifically on how a company is and can address the SDGs in its operations. This **article** summarizes the differences between the two tools.
- Pick one content area or one plant and dive in.



Echinacea (*Echinacea purpurea*)

What is done in our name must not remain invisible to us.

Tom Newmark
former senior executive of a leading dietary supplement marketing company and co-founder of Carbon Underground

CONTRACT MANUFACTURING

How well do you know your supply chain and the companies that are growing, sourcing, and manufacturing raw materials in your name? The more directly you can work with farmers and producer groups, the more you are able to confirm that those groups reflect your values. Most brands buy through brokers and/or contract manufacturers (CM). In choosing your suppliers, it is important to build a team to match your values.

Contract manufacturers offer a wide range of quality. They can be price-buying, looking for the cheapest product available, or they can rigorously implement the strict ingredient and product specification mandates required by their buyers. There is little incentive for a contract manufacturer to purchase more expensive raw materials and erode its margins. And so it is up to the finished product company, i.e., the brand holder, to provide the specifications to ensure that its values are truly represented in the quality of the raw material purchased, and, eventually, in the finished product.

LEARN

There are diverse ways to work with and assess your suppliers. We include examples of three different approaches: **Martin Bauer Group's mabagrown®_standard**, New Chapter's self-assessment tool developed in partnership with NSF, and Mega-Food's **Supplier Code of Conduct** and their **Healthy Farm Standard**.

New Chapter hired NSF International to help them develop and implement a three-tiered assessment with their business partners, from manufacturing to sourcing, to ensure that these partners adhere to New Chapter's mission, standards, and values. **Read the complete SHP case study here.**

Some key takeaways from New Chapter's experience:

- Assessments require suppliers to do additional work. **Be considerate** of the time and work required; be respectful and collaborative.
- **Enlist outside experts as needed.** NSF's expertise helped in both designing and implementing the assessment.
- **Go slow.** New Chapter took its time developing the assessment, tailoring it to each tier of their supply chain and conducting pilot studies to incorporate lessons into the assessment sent to all their suppliers.

They implemented it in three phases: the first phase involved simple yes-or-no questions to use as a benchmark. The second phase dives deeper, asking for more quantitative and qualitative measurements and document substantiation. And finally, the third phase asks whether they are setting goals and targets and what progress is being made toward those goals and targets.

- **Long-term relationships** — Partners with whom they have a long-term relationship were more receptive and responsive to the assessment. As New Chapter begins working with their partners to address some of the issues that have arisen from the assessment, these relationships are also deepened as each sees the other is willing to collaborate to improve practices.

TAKE ACTION

- Do one thing — Create or review your supplier code of conduct. Many examples exist; here is a link to [Mega-Food's Code of Conduct](#).
- Consider — How can you incentivize your suppliers to adopt your sustainability practices?

DIG DEEPER

- Vet/audit contract manufacturers to find those who can meet your requirements and specifications.
- Do they have Standard Operating Procedures (SOPs) for the following?
- **Science** — Understand botanicals, identification, how to identify, collect the correct plant part and test for quality, how to source at the appropriate time, store and transport for maximum chemical constituents.
- **Quality control** — How do they define quality? Do they strictly adhere to cGMPs as required by the FDA and do they implement additional requirements of quality control? In addition to required quality control testing and documentation, do they understand adulteration and do they test for common adulterants (as required by GMPs in the United States and many other countries)? Do they buy the whole plant or plant part? Is it in whole form or is it powdered raw material? If powdered, how do they ensure it is the correct material? What else do they test for in addition to identity? How do they validate their vendors? How do they validate their contract testing lab and/or in-house testing procedures?
- **Sourcing** — If the Contract Manufacturer is responsible for sourcing ingredients, they need to understand good sourcing practices (see previous sections on creating Supply Networks and Relationships through the Supply Chain). Do they buy directly from producers or through brokers and distributors?
- **Extraction** — Do they understand the technology and the effect of distinct types of extraction on phytochemistry of fresh or dried source plant material? What fillers and solvents do they use? How is waste handled?
- **Regulations** — Do they understand, implement, and audit the regulations required by the country where they operate?
- Do they formally screen for social or environmental practices and performance of suppliers?
- Develop an ongoing relationship with your partners. Do site visits and audits. Ask questions. Get a voucher. Do they know where plants were harvested? If they cannot give the source, ask more questions. "If you aren't working directly with producers, how do you know the information in your C of A [certificate of analysis] is accurate?"
- The pharmaceutical company AstraZeneca created a **clear, simple infographic** that summarizes their supply network and the standards they use, a useful model for providing greater transparency about sourcing.

COLLABORATION AND PARTNERSHIPS

Do one thing and don't do it alone.

Erin Callahan

Climate Collaborative

Beyond sourcing, how does your company impact the environment? What else is in the products you produce? What fillers? What solvents? What waste is produced and how do you handle that waste? What about packaging? What is the impact on the climate? The natural products industry is increasingly focusing on these issues through educational content at trade shows and by providing resources for companies wanting to dive in but not sure how to begin. The issues faced cannot be tackled alone and require collaboration across the industry to make the changes needed.

LEARN

- **The Climate Collaborative** is a community of natural products businesses committed to bringing climate action into core business operations. They offer several tools and resources to help catalyze change within the business community. These efforts focus on nine action areas that a company can take: Agriculture, Energy Efficiency, Policy, Food Waste, Forests, Packaging, Transportation, Short-Lived Climate Pollutants, and Renewable Energy. In addition to offering webinars and hosting Climate Days at Expo East and West, the Climate Collaborative has developed working groups to enable companies to turn climate aspirations into action — including marketing, sales, finances, executive assistance, and operations.
- **The American Herbal Products Association (AHPA) Sustainability Committee** brings together herbal industry leaders, creating a community of practice that identifies, analyzes, and finds solutions for key social, brand, and environmental risks that require collaborative industry action.
- **SHP Gaia Case Study** — Read about the importance of partnerships and collaboration in the case study with Gaia Herbs.

Chamomile (*Matricaria chamomilla*) garbling



ACT

- Make a climate commitment to Climate Collaborative in one of the topic areas most suited to your company. If you have already made one, make another.
- If you are a member of AHPA, join the Sustainability Committee.

ISSUES: THE CLIMATE EMERGENCY

The B Corps recently stated that we are dealing with a climate emergency. Their definition, which has been adapted from Extinction Rebellion, states:

- **Tell the truth** — Acknowledge this is an emergency and treat it as one.
- **Act now** — Take radical steps to halt biodiversity loss and reduce greenhouse gas emissions to net zero by 2025.
- **Stronger together** — Work with others to create innovative solutions.

LEARN

Tom Newmark's words summarize what is at stake along with role and responsibility of addressing this emergency now:

It is going to take the collective power of the world's largest food companies, leaders of industry, NGOs, farming collaboratives, the environmental justice movement, all working together to respond to what the **IPCC [Intergovernmental Panel on Climate Change]** says is an alarm clock that is ticking and set to go off in twelve years. All of us have to swallow that alarm clock. We have to own the reality of the existential challenge.

We have to recognize that the natural products industry and the herbal industry are part of the larger ecosystem of food production. Soil is disappearing. Water is disappearing. Climate is changing. Industries that rely on the production of foods, spices, herbs, or fragrances will disappear in the apocalypse of climate change. It is happening. It is happening rapidly. I've talked to many companies that have told me that their existence and future are imperiled by the collapse of the supply of their spices, herbs and foods.

We are part of this world. We don't live on some Mount Olympus. And even if we did, Mount Olympus is on fire. And plants that used to grow happily on Mount Olympus have nowhere to run. Climate change is an equal opportunity destroyer of every agricultural environment. And companies that are in the herbal



Saw palmetto (*Serenoa repens*)

space have got to take on leadership. They have to either be leaders and help revolutionize agriculture in the world or they will be out of business in ten or twenty years. It's that simple.

This is absolutely it. We are not separate from the world. The world is on fire. We have got to get on board.

- **Trends in Advancing Corporate Climate Strategy** — Pure Strategies reports that “companies can reduce costs by engaging in climate initiatives and that by managing and planning for climate change they can generate more profitability.”

DIG DEEPER

- **Project Drawdown** is a research organization that reviews, analyses, and identifies the most viable global climate solutions, and shares these findings with the world. Eight of the top twenty solutions are in the food and agriculture sector.
- **Science Based Targets** — To urgently change course and seize the chance to avoid runaway climate change, the **UN Global Compact** is calling on business to step up and commit to set science-based targets aligned with limiting global temperature rising to 1.5°C above pre-industrial levels. The Science-based Target website includes **case studies** with companies discussing how they got buy-in, the benefits, and some of the innovations that are helping them achieve their goals. **Science-based targets** can seem overwhelming and intimidating. **Take these 9 steps to demystify science-based targets**, these targets explain. In SHP blog post, **Science-based Targets for Climate Change**, Vicky Murray, Sustainability Manager for Pukka, explains how they are taking action to meet their commitment to science-based targets and how they have approached it one step at a time.
- **DoNation** — Organize a campaign for your employees to reduce their carbon footprint. To help make every Pukka person carbon-savvy as part of meeting their science-based targets, Pukka launched a company-wide campaign with **Do Nation** to pledge to make carbon reductions in their daily lives. Teams competed against each other to save carbon and change habits. It made carbon saving real by linking it to activity we do every day, inspired a feeling of community engagement, and improved general sustainability literacy in the company which helped pave the way to set science-based targets. Take a look at the **Leaderboard** from Pukka's campaign for a sense of the different types of pledges.
- **Soil & More International (SMI)** works with companies to calculate their carbon footprint, which is the amount of greenhouse gases (GHG), specifically carbon dioxide (CO₂) emitted in the manufacture and transport of their products.

TAKE ACTION

- Make a climate commitment to **Climate Collaborative** if you have not done so yet. If you have made one, make another.
- Organize a **DoNation** campaign in your company.
- Set science-based targets.



Wild bilberry (*Vaccinium myrtillus*) harvest

ISSUES: PACKAGING

Fifty percent of all municipal waste is packaging. A Climate Collaborative survey found that companies identified packaging as the most challenging commitment. Organic Sustainable Community (OSC²) has organized a Packaging Collaborative which, with Climate Collaborative, provides the most current resources on initiatives to reduce packaging. Packaging is one of the biggest issues consumers are concerned about and it can be tricky for companies to navigate the line between actual impacts of different packaging and public opinion. Below are some resources for beginning to understand the impact of packaging in the waste chain or for going deeper into the subject.

LEARN

Quick Guide: Climate-Smart Packaging — Climate Collaborative compiled a clear and concise guide to help companies understand (1) climate-smart packaging strategies and (2) a design process to help companies improve the environmental footprint of their packaging. This is an excellent place to begin. There are different ways to approach the topic:

- Mountain Rose Herbs has created an **Environmentally Preferable Packaging Policy** that includes environmental guidelines for procurement, raising staff awareness, and encouraging suppliers to consider environmentally preferable packaging as well. To make the policy easy to use, they have general department guidelines and then specific guidelines for each department. The policy is to be reviewed every two years.
- **Traditional Medicinals's Non-GMO Project verified tea bags** and strings produced in partnership with Glatfelter, made from sustainably farmed abacá leaves (*Musa textilis*, Musaceae) from the Philippines.
- **Evolving the Envelope** describes how Pukka reduced the size of their tea bag envelopes as a way to reduce climate impacts.
- **Ecovative design** uses mycelium, the root structure of mushrooms, to grow materials that replace plastics.
- **Where Does Our Packaging Go?** — An hour-long free webinar on compost, recycling, and landfill with Waste Managers and their on-the-ground experience presented by OSC² Packaging Collaborative.
- **Using Life Cycle Analysis to make Business Decisions** — A case study comparing using glass and plastic bottles, by Sara Newmark, Vice-President of Social Impact, Megafood.
- **Earth Renewable Technology (ERT)** manufactures patent-pending microfiber additives and specialty compounds for plastic that can increase elongation at break, impact resistance, barrier, and heat deflection temperature.

ACTION

- Make a climate commitment on the packaging initiative.
- Attend packaging educational programs at trade shows and engage in the conversation.

ISSUES: WASTE

If food waste were a country, its emissions would rank third in the world, after China and the United States, producing **8% of manmade emissions**. A third of the food that is raised or prepared is never eaten. Few resources look specifically at measuring and reducing waste in the botanical industry, but lessons can be learned from efforts to address food waste more broadly.

Herb companies are increasingly talking about reducing waste and finding alternative packaging. Beyond that, conversations about sustainability focus on sourcing raw materials and carbon emissions, but waste may not enter the conversation. There is an unmeasured amount of raw materials wasted in growing, harvesting, processing, and manufacturing products. Reducing that loss could mean less pressure on wild plant populations, less energy used for transportation and processing, less solvents used for extraction, and less carbon emissions from each of those processes.

Plants that are grown, harvested, and handled properly can be of higher quality, and so less raw material is needed to produce products that achieve the desired effects. For example, to get a jump on the competition, some saw palmetto harvesters pick the berries too early in the season. These are unripe green berries. Ripe berries, as determined by levels of extractable solids and fixed oil content, harvested later in the season, take fewer pounds of berries to make a given amount of extract that meets appropriate specifications.

In addition, the use of solvents in manufacturing and labs has an impact on the environment. See below for resources and solutions to reduce the amounts used as well as finding appropriate ways to keep them out of waterways, etc. in their downstream process.

For more information, see the SHP website section on **Waste and the Botanical Industry**.

LEARN MORE

RAW MATERIAL WASTE

- **On-field Waste** — On-field waste includes poor planting density, poor germination, inferior quality, diseased, and weather-damaged crops. Minimizing waste begins with good seed selection and good farming practices to improve the quality of plants and soil to increase resilience.
- **Post-harvest Handling Waste** — The greatest losses come in post-harvest handling due to inadequate drying and storage facilities. Even when handled well, some crops with a high percentage of stem lose up to 50% to mill loss.
- **Turning Waste Streams into Value Streams**
 - **Euromed**, a botanical extract producer based in Barcelona, Spain, has broad goals to reduce waste production and implement ecofriendly waste management. In an innovative partnership, waste products from Euromed's saw palmetto fruit extraction are used to develop ecological dyes fully traceable from nature to fashion produced by Archroma®. Read more at this **SHP blog post**.
 - **Applied Food Sciences (AFS)**, a botanical ingredient supplier based in Austin, Texas, has found a use for the sweet coffee fruit known as cascara (the Spanish word for bark, not to be confused with 'cascara sagrada', the laxative tree bark from Rhamnus purshiana, Rhamnaceae). This fruit is typically discarded as the coffee beans are processed; most of it ends up in the landfill. AFS developed CoffeeNectar™ cascara fruit extract to provide a use for this fruit that both generated additional revenue for coffee farmers and kept the fruit out of waste streams. More information coming soon on the **SHP blog**.

FACILITIES WASTE

Managing waste begins with a systems approach, beginning with evaluating how waste enters the system and redesigning systems to minimize waste streams and reduce reliance on raw materials. This includes raw materials, packaging, solvents, energy and water use. Below are examples of several companies' and organizations' approaches to waste management.

- **The Journey to Zero Waste** — Zero Waste is a set of principles focused on waste prevention that encourages the redesign of resource life cycles so that all products are reused. For example, **Mountain Rose Herbs** recycles and composts over 335,000 lbs. of materials every year. They produce around 17,000 lbs. of trash a year. It takes perseverance and commitment to achieve Zero Waste certification. Read the SHP blog [The Journey to Zero Waste](#) to learn more about the experience of Mountain Rose Herbs.

Resources:

- **TerraCycle** offers a range of national, easy-to-use recycling platforms.
- **Climate Collaborative** has links and resources on addressing **food waste** and waste in packaging that are a good place to begin learning more.
- AstraZeneca, a pharmaceutical company, outlines their approach to **waste management** which includes stories from manufacturing that are applicable to larger dietary supplement manufacturers.
- **ReFED** provides a wealth of resources for reducing food waste. Their website includes data on savings of different approaches to waste reduction (i.e., waste tracking, consumer education, standardized labeling, packaging adjustments). These savings can be measured in terms of finances, waste diverted, emissions reduced, water saved, jobs created, and meals recovered. In addition, it offers detailed solutions across the supply chain.



SOLVENTS AND GREEN CHEMISTRY

Solvents can be an unseen component of the manufacturing of dietary supplements and herbal products. Inherently technical, solvents often remain the unnoticed realm of chemists and manufacturing technologists and are seldom visible in the customer's mind. Solvents must be properly handled at all stage of the manufacturing process.

The selection of solvents is a key component in the botanical extract manufacturing process and is a key consideration in sustainability. Even if a company can demonstrate that little or no solvent residue is in the final ingredient or finished product, what are the impacts on the environment and the workers in sourcing, handling, and disposing of solvents? If a company uses a solvent, they have a responsibility to the use cycle of the solvent.

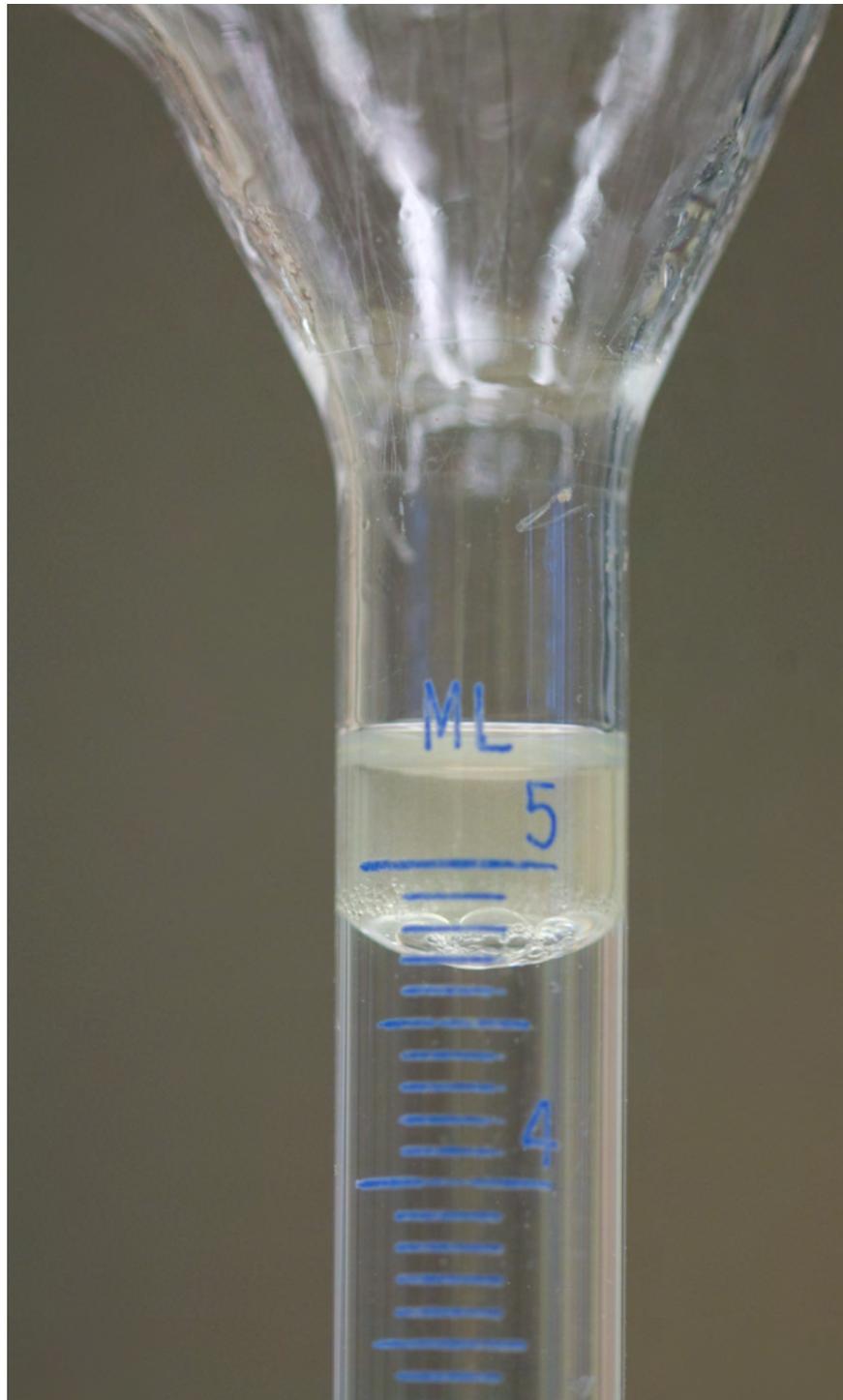
Like any other issue in the herb industry, it begins with understanding the role solvents play and the efforts companies are taking to minimize and, in some cases, eliminate the use of harsh solvents. And then it takes encouraging more companies to follow suit.

LEARN

Manufacturing at Indena — watch this 3-minute SHP video of environmental practices at Indena, a large botanical extract producer at their manufacturing facilities in Milan, Italy.

This SHP video outlines the use of and disposal of solvents. Indena's process begins in the lab where they work to identify the least harsh substances that can be used for extraction. For some methods of extraction, depending on the botanical material and the intended type of extract, they use stronger solvents. They approach this by minimizing the use of these substances, reusing them, and continuing to work to minimize the use and impacts of harsher solvents.

The video also includes an overview of Indena's creative management of wastewater which lowers their carbon footprint by reducing their fuel consumption.





Additional Resources:

- MilliporeSigma has created a simple infographic (scroll down to **12 Principles of Green Chemistry**) that summarizes Paul Anastas and John Warner's **12 Principles**.
- Here's an example of an environmental risk summary for ingredients used in manufacturing products by **AstraZeneca**. This summary is for pharmaceuticals, not dietary supplements, but provides a useful framework for ways to provide transparency about manufacturing processes, solvent use, and their risks.

Questions to consider: The Laboratory's Environmental Footprint

What is the environmental footprint of a lab and what can be done to reduce it? What chemicals are being used, what are the impacts and what is the eventual fate of those chemicals?

- How Green is your Laboratory? Read the **SHP post** by ABC's Chief Science Officer, Stefan Gafner, PhD — his introduction to sustainability issues in quality control laboratories.
- **Green Biopharma** — Resources to reduce the environmental impact in laboratories and manufacturing.
- MilliporeSigma also offers **greener alternatives** for common lab reagents and chemicals and a portfolio of **green services**, including **returnable solvent containers** and a **polystyrene cooler return program**.
- **My Green Lab** — Resources to reduce the environmental impact of labs.



DIG DEEPER

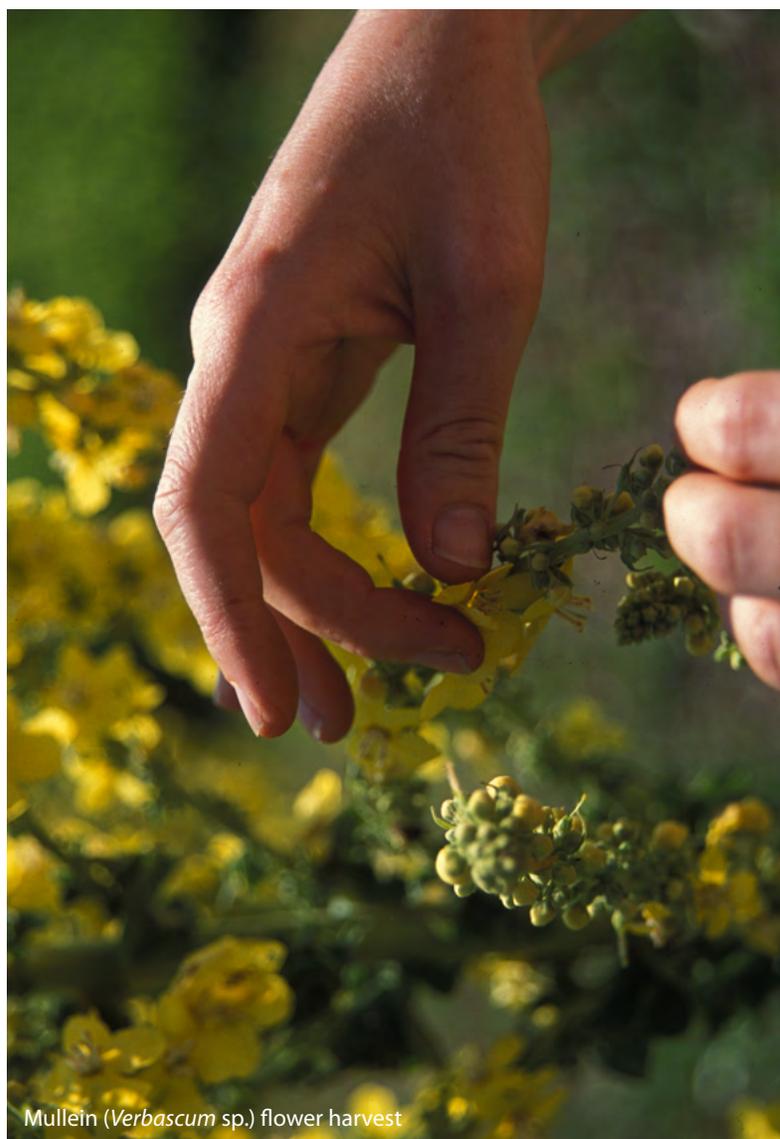
- **The Chemical Footprint Project** — Provides a tool for benchmarking companies as they select safer alternatives and reduce their use of chemicals of high concern.
- **The Power of Chemical Footprinting** — Pure Strategies provides an in-depth view of how the Radio Flyer company took the steps needed to move to sustainable chemicals management. While the issues are different for the botanical industry, this case study provides a map for how to approach building greater chemical transparency into manufacturing.

TRADE SHOWS

- **The Story of Herb Pharm's Trade Show Booth** — Trade shows generate tremendous amounts of waste, from the booths to the samples to the carbon footprint of everyone traveling to the shows. SHP documented Herb Pharm's decision-making process as it designed its Expo West 2020 booth to inspire the industry to think about the environmental impact of trade shows. Read the SHP Blog series [here](#).
- The **New Hope Sustainability Program** includes information on ways they are working to reduce the environmental impacts of their trade shows, guides for exhibitors and attendees to reduce those impacts, and ways to get involved. If you are an exhibitor or attendee to trade shows, look to see how you can support these efforts.

TAKE ACTION

- Make a **climate commitment** to address waste via Climate Collaborative. Take advantage of their **resources** (videos, webinars, tool kits, and case studies) to take action on this commitment.
- Do a **waste audit** and begin taking action on reducing through redesign and upstream communication, reusing, recycling, and identifying take-back programs.
- How can you redesign aspects of your trade show presence to generate less waste?
- **The B Impact Assessment, SDG Action Manager** includes a series of steps and commitments a company can take to work toward more responsible management of manufacturing costs and impacts that is a useful guide to action. Take the assessment and see where to begin.
- Take the **Chemical Footprint Project Survey** to see where your company stands and whether there are issues of concern. If you do, dig into the resources on this site.



Mullein (*Verbascum* sp.) flower harvest

ADVOCACY — TAKING A STAND

Companies leading the way here believe that it is not enough just to produce a product and pay attention to your supply network. You need to put a stake in the ground and say, “This is what we believe in.”

LEARN

- **Engaging** in Climate Policy thru collaborative organizing: **Mountain Rose case study**.
- MegaFood has been a leader in engaging in policy issues that impact their mission.

Bethany Davis, Director of Advocacy and Government Relations at MegaFood, outlined the key steps in MegaFoods’ glyphosate campaign:

- **Becoming Aware** — Understand what is at stake. As Bethany learned the ways that farming practices are killing our topsoil and threatening the long-term food supply, she realized that nothing MegaFood produced mattered if there was no food.
- **Treat it Like a Business Case** — Bethany made the case to company leadership that, as a whole food-based supplement company, if there was not food, MegaFood would not have products. If the company did not change the way they operated, they would not have a company.
- **Consumers Support Companies Who Care** — More and more marketing studies are demonstrating that consumers support responsible companies.² Bethany said that even if not all consumers want to do something good, they do not want to support companies that they perceive as “bad”, ie., in this sense, engaging in non-sustainable practices. This is also a way of building brand loyalty and repeat customers.
- **Research** — MegaFood conducted a research study to find out which values were most important to its customers.
- **Learn from Partners and Work with Partners** — Do not recreate the wheel. Bethany and her team spent a day at Ben and Jerry’s to learn from their approach. From Ben and Jerry’s they learned to (1) talk about something you have earned the right to talk about and (2) partner with those who know what needs to be done or use your resources to support NGOs already doing the work.
- **Lesson Learned** — The lesson was people care about this. Retailers care. There is evidence that people want to buy and help promote a company’s products when they do work that is important.



Turmeric (*Curcuma longa*) harvest



Fresh cilantro (*Coriandrum sativum*)

TELLING STORIES: FROM CONSUMERS TO CITIZENS

What can you do as a company to engage your customers in a meaningful way in the mission of your organization? Patagonia's ***The FootPrint Chronicles*** set a high bar for transparency, inviting customers not only to see where and how their products are manufactured, but also to peer into the challenges Patagonia faces in meeting its high standards.

The goal of marketing is to make a message sticky so that people remember it and can easily share it. On the other hand, the work of building sustainability into diverse value networks is complex, detailed, and nuanced. It is extremely challenging to translate that complexity into compelling, sticky stories. There is a tension between capturing that nuance in a way that does not overly simplify the message and losing one's audience.

Yadim Medore of **Pure Branding** says that transparency is ultimately about connection. It is about the human desire to be closer to the people who are providing for us, who are working with us and for us. The details of tracing from where raw materials are derived, supporting regenerative farming practices, and ensuring fair wages are all important in that they are part of a story of how a company is working to care for people and the planet. Both are essential to the message, the details and saying why it matters.

Some reflections from our perspective not as marketers but as readers of marketing content:

- Be interesting.
- Tell the truth.
- If you can't tell the truth, change what you are doing so you can.
- Tell stories, but tell stories about the people, places, and plants to make those lives and places visible, not simply to sell a product. If you sell marshmallow (*Althaea officinalis*, Malvaceae) from Bulgaria, for example, talk about the region of Bulgaria where the marshmallow is grown. Who grows it? What are their lives like? If the plant is wild collected, share a story about the lives of the wild collectors. If you have a tough time finding those stories, that is an indication that you need to invest more into devel-

oping those relationships. Asking the suppliers about these stories lets them know you are paying attention. Better yet, visit those regions yourself to get your own stories to share.

- Lots of leading herb companies offer webinars about how different herbs can be used for health benefits. What about also creating webinars with information about how you vet your vendors or select a contract manufacturer? How do you ensure they are doing what they say they are doing? In teaching about the uses of those plants include stories about the supply chain for those particular plants. Of course, the point is still to sell the product, but in the process you will not only be educating your customers about where you get your plants, but also showing that these things really do matter.
- Include information about different types of processing and solvents used. Provide this information not just to convince customers why your company's processes create the best products, but to help them understand the reasons for the choices you have made, what the other options are, and how that impacts the quality of the product.
- Share information about your company. The Sustainability Reports of **Traditional Medicinals**, **Gaia Herbs**, and **Pukka Herbs** are good examples of providing evidence of, as Summer Singletary, Content Marketing Strategist, says, "loyalty to results."
- Talk about what is at stake and why it matters. The natural products industry focuses on individual and personal wellness at the expense of the broader social and ecological context. How is what you are doing good for the whole?

Learn more from our SHP conversation with Summer Singletary.

ACTION

- Just begin! This is the easy and fun part, a way to celebrate your hard work and share your successes and challenges with others.

Dig Deeper

- In **The Power of Traceability: A Road Map in 10 Steps**, Yadim Medore, founder and CEO of Pure Branding, outlines a straightforward process for developing a marketing strategy that builds on telling stories about where your products come from.
- **The Lexicon** — creative, short videos communicating words that are at the heart of sustainability.
- **Winning the Story Wars** — outlines a process for brands to use stories to engage with your audience as citizens wanting to make a difference not just as customers of your product.
- **INTO** — a new online storytelling platform to connect customers with the stories behind a brand through short, visual Instagram like stories presented via images, videos, maps and text that are produced and controlled by the company. New blockchain technology will make it possible to upload images and stories from the supply network.



Calendula (*Calendula officinalis*) flowers

APPENDIX

Convention on Biodiversity/ Nagoya Protocol

— Companies need to understand the Convention on Biodiversity and the Nagoya Protocol on ABS and how these international mandates impact developing herbal products from plant resources. See the following resources:

Convention on Biodiversity

— Signed by 150 government leaders at the 1992 Rio Earth Summit, the Convention on Biological Diversity is dedicated to promoting sustainable development. Information and resources are on the website.

Union for Ethical Biotrade

(UEBT) provides resources and guidance for companies navigating Access and Benefit Sharing and the Nagoya Protocol. Three resources:

- What is ABS? **Short introductory video.**
- Summary of ABS — **Biodiversity and Innovation.**
- **FAQs on the Nagoya protocol.**

Cayenne (*Capsicum annuum*) in Egyptian herb shop



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