

# AVOCA, INC.

CUSTOMIZED MANUFACTURING & EXTRACTION SERVICES

A DIVISION OF PHARMACHEM LABORATORIES, INC. 

## THE ART AND SCIENCE OF CUSTOM EXTRACTION

Avoca, Inc., a division of Pharmachem Laboratories, Inc., is the world's premier botanical extraction company - a custom developer and manufacturer of extraction products and services.

Part art and part science: we blend, extract, concentrate, crystallize, purify and isolate unique products for our customers, based upon their specifications. Avoca operates a solvent extraction facility operating under food grade GMPs.

## THE WORLD'S OUTSTANDING FLAVOR AND FRAGRANCE COMPANIES PARTNER WITH US

For 40 years, Avoca has worked closely with some of the world's outstanding flavor and fragrance companies. In fact, Avoca is the world's primary manufacturer and supplier of sclareolide to the fragrance industry. The company grows its own clary sage on-site, and purchases additional quantities of the herb from local farmers. Using a proprietary process to extract sclareol from the clary sage plant, we then convert the material to sclareolide through bioconversion.

## OUR FRAGRANCE-SPECIFIC PRODUCTS INCLUDE:

- Clary sage oil
- Sclareol
- Sclareolide

Every customer has a singular vision and unique objective, and Avoca expresses each one perfectly, using the most sophisticated extraction, concentration, crystallization and process chromatography technologies available today.

Avoca is also an ideal R&D partner, with multiple research projects underway at any given time. Our comprehensive operations, meticulous quality control and expert team is dedicated to ongoing evaluation, research and refinement. The results? Superior products. Unrivalled successes.



**AVOCA**  
CUSTOM EXTRACTION



## WE CONSTANTLY STRIVE TO IMPROVE PROPRIETARY PROCESSES

As industry needs evolve from dry powders to standardized extracts, we provide more than toll processing and extraction services. We have the technology and scientific knowledge necessary to constantly evaluate and improve proprietary processes, increase yields, and reach higher levels of purification. As an added measure, all Avoca capabilities are even conveniently located in-house and on-site.

- Custom Extraction
- Concentration
- Crystallization
- Column Chromatography
- Liquid Clarification
- Purification and Recovery
- Ultra filtration
- Centrifugation

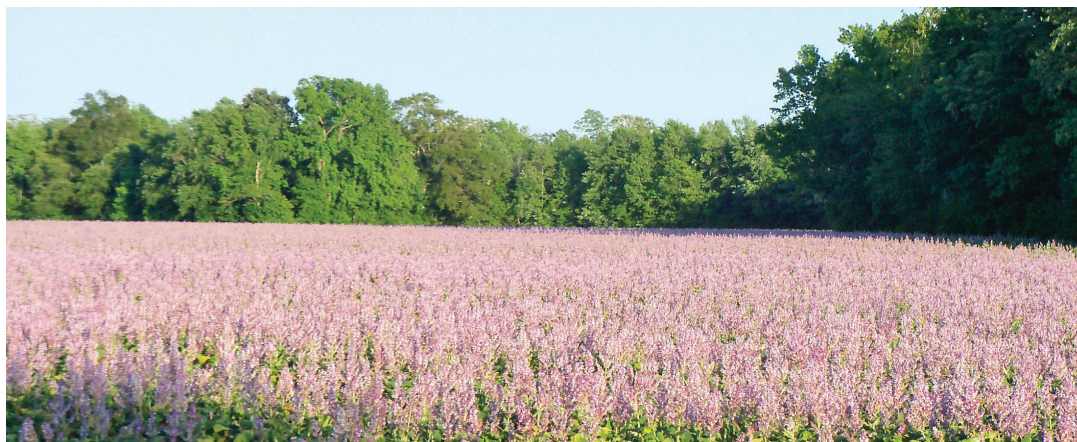
## THE ULTIMATE FACILITY FOR CUSTOM EXTRACTION

As one of the largest botanical extraction facilities in North America, Avoca has refined and implemented highly sophisticated extraction methods and purification technologies since the early 1960s.

We are widely recognized for our proprietary methods of producing sclareol from clary sage, beginning with our own freshly grown herbs. Commercial scale extraction and processing capabilities allow for large volume single batches, with daily extraction capacities from 2 to 240 metric tons; and a universal annual extraction capacity of 90,000 tons.

## EXTRAORDINARY DAILY EXTRACTION CAPACITIES

Counter-current Rotocel Extractor:	240 tons per day
Continuous-flow Crown Extractor:	5-10 tons per day
Continuous-flow Crown Extractor:	18 tons per day
Batch Slurry Extractor:	1-2 tons per day
Water Extraction System:	5 tons per day.



### NORTH CAROLINA

Avoca, Inc.  
 PO Box 129  
 841 Avoca Farm Road  
 Merry Hill, NC 27957  
 Phone: 252-482-2133  
 Fax: 252-482-8622  
[avocainc@avocainc.com](mailto:avocainc@avocainc.com)

### HEADQUARTERS

Pharmachem Laboratories, Inc.  
 265 Harrison Avenue  
 Kearny, NJ 07032  
 Phone: 800-526-0609;  
 201-246-1000  
 Fax: 201-246-8105  
[info@pharmachemlabs.com](mailto:info@pharmachemlabs.com)