



# Catnip

Cheryl Kaiser<sup>1</sup> and Matt Ernst<sup>2</sup>

## Introduction

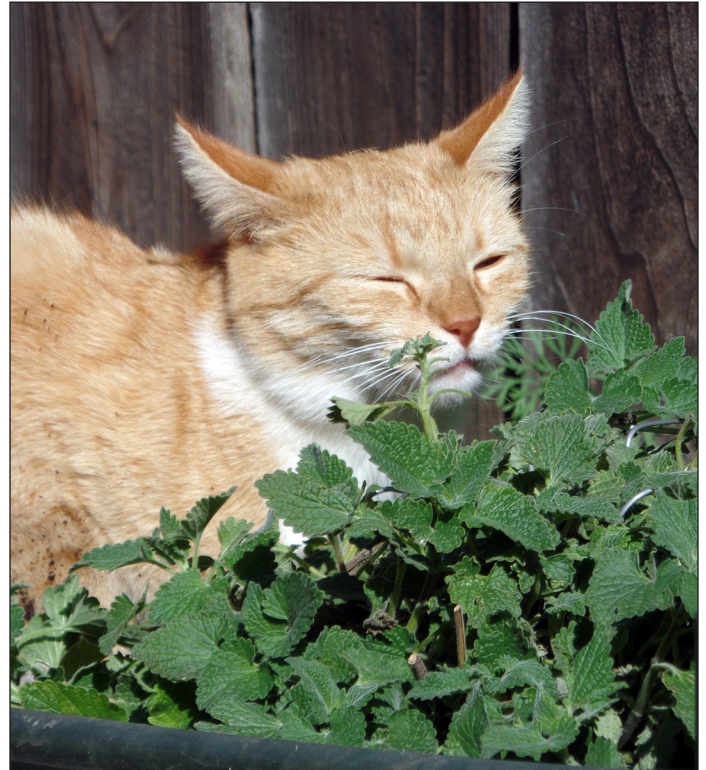
Catnip (*Nepeta cataria*), best known as a stimulant for cats, is a perennial herb in the mint family (Lamiaceae). Cats, both domestic and wild, are attracted to catnip mainly due to a compound known as nepetalactone present in plant tissues. In addition, catnip has several properties beneficial to humans. Once used as a folk remedy for a wide variety of medical problems, today catnip's essential oils are used in a number of pharmaceutical products and dietary supplements. For example, catnip contains thymol, a compound that can be used as an antiseptic. Additionally, catnip extract has a mild anti-spasmodic effect that reduces muscle cramps. Leaves and stems are used in herbal tea mixtures and as flavorings in foods. Researchers have also found that catnip contains several chemicals (citronella, citral, carvacrol, and pulegone) that repel insects; thymol has fungicidal properties.

## Marketing

Catnip is primarily marketed for cats in stuffed toys, catnip filled balls, compressed pellets, and in shaker bottles. Marketing possibilities include farmers markets, pet stores, and higher-end retail stores. Some farms have used farm-grown catnip in hand-crafted pet accessories sold directly to consumers at farmers markets and other direct markets. Growers should have an established market available before beginning production or limit their production to very small scale because many members of the mint family spread aggressively.

## Market Outlook

Strong marketing skills are essential for success with a niche product like catnip. Most commercial catnip for toys is of a



Leaves (and blossoms) are the most aromatic portions of the catnip plant.

lower grade, consisting of dried, ground-up stalks, as well as leaves. However, the most aromatic portions of the plant are the blossoms and leaves. Savvy growers may be able to develop a market for a higher-grade product, especially if well-packaged to retain freshness, and therefore, potency. Organic growers with an existing consumer base that prefers organic goods may also have a distinct marketing advantage. Re-

searchers at Rutgers University in 2015 announced development of a new breed of catnip with larger plant size and higher essential oil content. That breed, CR9, was licensed to a commercial seed company, and scientists at Rutgers expected



<sup>1</sup>Cheryl Kaiser is a former Extension Associate with the Center for Crop Diversification.

<sup>2</sup>Matt Ernst is an independent contractor with the Center for Crop Diversification.

to release a line of smaller plants to home gardeners.

Wholesale herb markets are difficult to break into, with prices fluctuating widely. Potential wholesale producers would need to have a marketing agreement in line before producing large amounts of a niche crop like catnip. Producers with creativity and good marketing skills may be able to capture a local or regional niche in the pet supplies market. According to the American Pet Products Association, an industry trade group, pet supplies accounted for more than 20 percent of consumer spending in the \$103 billion U.S. pet industry in 2020. The same group estimated that a similar percentage of \$109 billion would be spent in 2021.



### *Production Considerations*

#### *Cultivars*

Catnip is widely available as the botanical species (*Nepeta cataria*). Differences have been reported to exist in yield potential and chemical composition between commercially available seed lines.

#### *Site selection and planting*

Catnip prefers sites with full sun, well-drained soil, and adequate moisture. This herb can be propagated by seed, stem cuttings, or division. Commercially grown catnip is generally seeded and grown in a greenhouse or hotbed until plants are the proper size for transplanting. Greenhouse float beds and transplanters designed for tobacco production could be used for catnip. Plants are then transplanted to the field mechanically or by hand once all danger of frost has passed. Small seed size, slow germination, and poor competitive ability with weeds makes direct seeding to the field difficult.

Catnip is a moderate nitrogen feeder, so a pre-plant broadcast of nitrogen is recommended. Additional applications can be sidedressed after harvest to speed regrowth.

#### *Pest management*

Weeds are the greatest threat to production because catnip is a poor competitor with other plants. There

are no herbicides labeled for this crop; hand weeding and cultivation are the main techniques for weed management. Since catnip oil contains compounds that discourage insect feeding and fungal growth, it has few insect and disease pests.

#### *Harvest and storage*

Catnip is ready to harvest at full bloom when aromatic properties are at their peak. Stems are cut a few inches above the crown to allow for plant regrowth. Generally, plantings may be cut twice (mid-summer and fall) during the growing season. Cutting can be accomplished by hand or with a side bar cutter mower. Some growers gather the crop using a standard baler once stems have dried sufficiently. Harvested plants are dried naturally in the shade or with an artificial dryer. Further drying and processing may be required, depending on the buyer and end use.

#### *Labor requirements*

Labor needs per 1/5-acre are approximately 64 hours for production, 52 hours for harvest, and six hours for processing.

### **Economic Considerations**

A niche market crop such as catnip can require smaller levels of land and capital than other crops. This creates interest in niche crops, like catnip, among smaller farms; however, there is a small wholesale market for catnip, and retail or value-added sales will be dependent on the farm's marketing effort. No amount of any crop should be grown without first preparing a viable marketing plan.

Initial investments include land preparation, purchase of seed, transplant production, and plant establishment. Seed purchases and planting costs will be the most significant cash outlay for the small-scale producer. Two-year production costs for 1/5-acre of catnip in Kentucky could range from \$600 to \$1,000, depending on the amount of hand weeding and cultivation required. Hand-harvest and marketing costs are estimated at about \$850 per 1/5-acre, valuing labor at

\$15 per hour. Total expenses, including both variable and fixed, would be approximately \$2,150 for 1/5-acre over two years. Returns for herb production will be highly variable, depending on marketing channels. Certified organic production or niche direct marketing of catnip products could generate two to three times the profit but will also require expenses associated with organic certification. A crop such as catnip will benefit by being marketed with other farm products.

### Selected Resources

- Selected Internet Resources for Herb Marketing (University of Kentucky, 2018)  
<https://www.uky.edu/ccd/sites/www.uky.edu/ccd/files/herbmarketing.pdf>
- Catnip as a Source of Essential Oils (2007).  
<https://hort.purdue.edu/newcrop/ncnu07/pdfs/simon311-315.pdf>

- Herb Production in Organic Systems (ATTRA, 2005) <https://attra.ncat.org/product/herb-production-in-organic-systems/>
- *Nepeta* (North Carolina State Extension) <https://plants.ces.ncsu.edu/plants/nepeta/>
- Production of Catnip in North Carolina (North Carolina State University, 1997)  
<http://www.hort.purdue.edu/newcrop/proceedings1990/V1-527.html>

### Suggested Citation:

Kaiser, C. and M. Ernst. (2022). *Catnip*. CCD-CP-50 Lexington, KY: Center for Crop Diversification, University of Kentucky College of Agriculture, Food and Environment. Available: <http://www.uky.edu/ccd/sites/www.uky.edu/ccd/files/catnip.pdf>

---

*Reviewed by Shawn Wright, UK Horticulture Specialist, and Josh Knight, UK Senior Extension Associate, Horticulture*

*Photos courtesy of [Pixabay.com](https://www.pixabay.com)*

**February 2022**

---

For additional information, contact your local [County Extension](#) agent

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability.