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# GROWING BEYOND:

## CULTIVATING NEW OPPORTUNITIES IN AGRICULTURE

### Innovative Strategies: Diversifying Your Farm Operations

Farm diversification is a smart way for farmers to earn money in different ways. They can come up with new products or services that their community will like, in addition to their main farming work.

For example, Cody Farms in Cazenovia, New York, grows lavender along with running their dairy farm. They incorporate the lavender to make things like soaps and other cool products.

### Lets Talk About Lavender, What Is It For?

There are many types of lavender, like Thumbelina Leigh, Royal Velvet (*L. angustifolia*), and Melissa (*L. angustifolia*). Each type is used for different purposes, creating many possibilities as shown below:

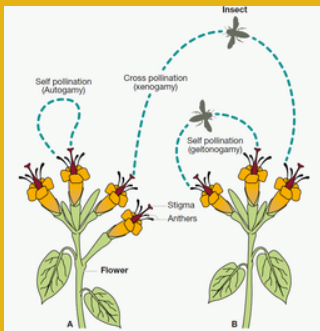
- **Essential Oil:** Different varieties produce different quantities of oil. Some produce less oil, but have a softer, sweeter scent. Altitude, spring rains and summer heat can affect the oil production and quality of the oil from the variety you select.
- **Culinary buds:** The popularity of cooking with lavender has produced many delicious recipes using lavender. Buds are used in recipes, whole or ground, flavoring sugar, oils, butter, honey, or lavender extract. The *L. angustifolia* variety has taken the top spot for culinary lavenders.
- **Dried buds:** Most varieties will produce buds that can be harvested for sachets or products using buds, but some will have a stronger fragrance and have a darker colored bud. Some varieties are easier to “de-bud” than others.



# Who helps all these flowers grow?

## BEES!

### What is pollen and how does it work?



Source: Robin Spanier

Virtually all of the world's seed plants need to be pollinated. This is just as true for cone-bearing plants, such as pine trees, as for the more colorful and familiar flowering plants. Pollen, looking like insignificant yellow dust, bears a plant's male sex cells and is a vital link in the reproductive cycle.

A healthy ecosystem blossoms from strong pollination. Many foods depend on pollination, like apples, tomatoes, alfalfa, and lavender, to name a few. Pollination occurs when pollen from a flower's anthers (the male part of the plant) rubs or drops onto a pollinator. The pollinator then takes this pollen to another flower, where the pollen sticks to the stigma (the female part). The fertilized flower later yields fruit and seeds. Pollinators can be bees, beetles, butterflies, flies, hummingbirds, moths, and even the wind. You can help pollination by creating a pollinator-friendly habitat.

### Bees as Pollinators: Why They Matter

Without pollinators, the human race and all of earth's terrestrial ecosystems would not survive. Lavender and bees are best friends! Bees particularly love the full bloom of [lavender](#). Bees love the sweet nectar that flowers produce.

When bees land on flowers to drink the nectar, they pick up pollen on their bodies. As bees fly from flower to flower searching for more nectar, they carry the pollen with them. This helps pollinate the flowers, allowing them to grow fruits and seeds. It's like bees are tiny gardeners, helping plants grow while they collect their food!

### Bees' Waggle Dance: Nature's Secret Code!

Bees are super social and really smart creatures! In a bee colony, they work together to gather food and materials to build their hive. To share information with each other, bees do a special "waggle dance." When a bee finds food, it waggles its tail and spins around to show the other bees where the food is. The angle of their dance in relation to the sun and how long they dance tell the other bees exactly where to find the tasty treats. It's amazing how accurately they can communicate using just their dance!

