



Ohio and chickens

- Ohio chickens are #2 in egg production in the United States, producing more than 10 billion eggs each year.
 - How many eggs are in a dozen?
 - How many dozens of eggs are they producing?
- Each hen lays 5–7 eggs each week.
 - How many eggs do they lay in a year?
- Ohio produces over 526 million pounds of chicken!
 - If an average chicken weighs 8 pounds, how many chickens will this be?
- A chicken eats 30 lbs of soybean meal each year! Ohio has more than 30 million hens!
 - How much soybean meal do we need each year to feed 30 million chickens?
- Soybeans are usually fed to poultry as soybean meal.
 - What else are soybeans used for?

Careers related to animals

- Entrepreneur
- Veterinarian
- Animal nutritionist
- Pathologist
- Animal breeder
- Livestock/herd manager
- Feed mill manager
- Truck driver for feed mill
- Commodity buyer for grain
- Animal trainer
- Field agronomist



Ohio and goats

- Goats may be used for goat's milk (dairy) and for meat.
- Goats may live about as long as a large dog.
- In Ohio, there are over 40,000 meat goats and about 10,000 dairy goats.
 - Goat's milk can be used to make cheese, soap, and other products.
- Goats need hay as their major food source, but also need minerals. Dairy goats need grain in a feed mix to help with milk production.
- Goats need to be fed a combination of roughage (from the green parts of plants, such as, blades of grass or hay) which tend to be low in energy and concentrates are that are high in energy or protein (from the seeds of a plant: corn, oats, grains and soybeans). Goat chow has soybean oil as an ingredient.
 - What do fats and oils provide for animals?
- Goats' feed needs to be above the ground since they are browsing animals rather than grazing animals.

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Ohio and bees

- Ohio has 19,000 honey-producing bee colonies that average 66 pounds of honey per colony for a total of 1.25 million pounds of honey per year.
 - How many bees does it take to make a pound of honey?
- Honeybees live in colonies consisting of 50,000–60,000 bees, mostly worker bees. Worker bees (drones) only live an average of 2–6 weeks.
- Upon mating with a queen, drones die immediately.
- A queen bee can live between 1–2 years, but sometimes up to 5 years.
- Bad weather or disease may shorten a bee's life.
- Honeybees increase soybean production (yield) by 14%
 - If a soybean field produces (yields) 50 bushels/acre, how much more would it yield if a hive was nearby?
- Ohio ranks 19th in honey production in the U.S.

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Ohio and fish (aquaculture)

- Aquaculture is raising fish in ponds or tanks for food or for re-stocking rivers and lakes.
- Many different types of fish are raised using these methods.
- Ohio ranks first in sales of yellow perch for food and is the #1 bluegill producing state.
- Ohio also ranks fourth in sales of baitfish and largemouth bass sold for sport and fifth in number of smaller farmed fish used for bait.
- Fish generally eat other fish, fish eggs, algae, plants, plankton, and insect larvae. However, soybean meal, soybean oil, and other vegetable proteins and oils, can replace from one-third to one-half of the fishmeal in feeds for many farmed species and are less expensive than typical fish feed.
- Catfish and tilapia are fed the most soybean-based fish meal.
 - Catfish are the most-farmed fish in U.S. aquaculture.
 - Catfish and tilapia like soybean meal.
- Many U.S. aquafeeds use greater percentages of soybean meal than those used in other land animal livestock feed.
- It only takes one pound of feed to create 1 pound of fish meat for human consumption.

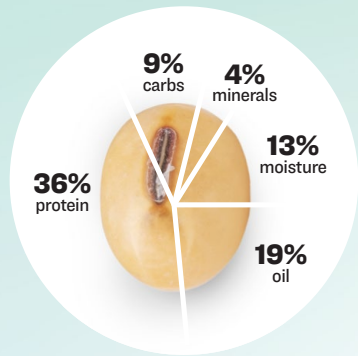
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Ohio and soybeans

- Ohio ranks 6th in production of soybeans in the US.
- Over half or 50% of soybeans are exported from the US to other countries.
- Soybeans are used for:
 - Animal feed
 - Vegetable oil and biodiesel
 - As an additive in many products as a replacement for petroleum-based oil (candles, paint, astroturf, foam seats, lubricants)



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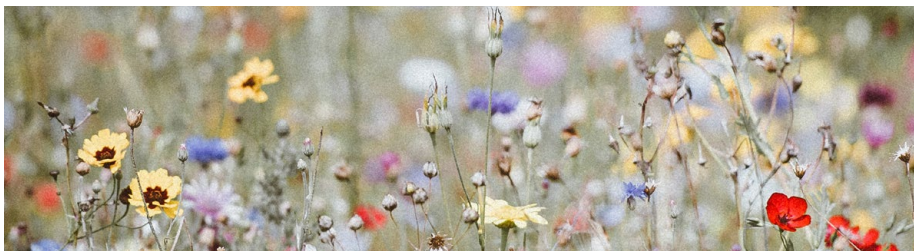


Ohio and herbs

- Herbs are any plant with leaves, seeds, or flowers used for flavoring, food, medicine, or perfume.
- Gahanna is the official herb capital of Ohio.
- Most herbs are edible.
- Adding herbs significantly increases the flavor and enjoyment of foods.
- Herbs can be grown indoors, with lots of light from a south-facing window or a grow light.
- Herbs need a planter with good drainage.
- Herbs can be grown in a hydroponic system. Nutrients and pH need to be monitored and maintained.

Careers related to plants

- Plant pathologist
- Soil scientist
- Horticulturist
- Landscape design
- Interior design
- Gardner
- Conservation scientist
- Plant videographer
- Food scientist
- Floral sales/arranger



Ohio and flowers

Ohio wildflowers bloom throughout the spring, summer, and fall.

Spring wildflowers

- Jack-in-the-pulpit grow in shaded moist environments like wooded areas.
- Painted trillium also can be found in wooded areas, but are endangered.
- Blue lupine grow in oak savannas (prairie type areas) in northwest Ohio.
- Mayapples can be found in open forests.

Summer wildflowers

- Milkweed species attract butterflies and other pollinators.
- American water lotus may be found in freshwater ponds and have white blooms that may be 10 inches in diameter.
- Blazing stars are prairie dwellers and an important food source for many animals and pollinators.

Fall wildflowers

- 30 American aster species that call Ohio home, all blooming in late summer through the fall.
- Goldenrod species bloom in early September with tiny, bright yellow blooms.

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Ohio and succulents

- Succulents are drought-resistant plants with leaves, stem, or roots that are fleshy to store water.
- Contrary to popular belief, succulents can grow in Ohio.
- Several sedum varieties grow easily in Ohio.
 - Autumn joy produces green broccoli-like buds by mid-summer, then open into large pink flower heads that deepen to rusty red by fall.
 - The *Sempervivum* hens-and-chicks are a group of succulents that grow in low, rosette-forming colonies.
- Succulents grown indoors may increase air quality.
- Aloe vera, yucca and agave have medicinal qualities.
- As with many flowers, succulents may be used in bouquets and other flower arrangements.

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