

Solar Pathways for Farmers

Chicken Farming

1. Goal Setting and Market Research:

- **Market Research:** Investigate the demand for eggs or meat chickens in your area. Identify potential customer segments (restaurants, grocery stores, direct-to-consumer) and research prevailing prices.
- **Financial Planning:** Develop a detailed business plan outlining your start-up costs, operational expenses, and projected revenue. This will help you secure funding and make informed decisions.
- **Define Your Vision:** Establish your long-term goals for the farm. Will you focus on egg production, meat production, breeding stock, or a combination?
- **Market Analysis:** Research the demand for chicken products in your region. Identify potential customer segments (textile mills, meat processors, breeders, fiber artists) and analyze prevailing market prices.

2. Choosing Livestock and Preparing the Land

- **Animal Breed Selection:** Research different chicken breeds suitable for your market goals (egg production, meat production, dual-purpose). Consider factors like climate, disease resistance, and desired production volume.

3. Animal Management and Husbandry:

- **Pasture Management:** Develop a grazing plan that promotes healthy pastures and optimal forage utilization. Consider incorporating rotational grazing techniques.
- **Shelter and Bedding:** Provide adequate shelter for your animals to protect them from harsh weather conditions. Use appropriate bedding materials for comfort and hygiene.
- **Veterinary Care:** Establish a relationship with a veterinarian specializing in chickens for routine checkups and preventative healthcare.
- **Feed and Water Management:** Provide your chickens with a balanced diet formulated for their age and production stage. Ensure clean, fresh water is readily available throughout the day.
- **Animal Acquisition:** Decide whether to purchase day-old chicks or older pullets (young hens nearing egg-laying age). Source your chicks from reputable hatcheries that prioritize bird health.
- **Biosecurity Measures:** Implement a biosecurity plan to minimize the risk of introducing diseases to your flock. This may include quarantine procedures for new birds, footbaths, and regular coop disinfection.

4. Legal Considerations and Sales Channels:

- **Marketing and Sales Strategy:** Develop a marketing strategy to reach your target customers. Consider farmers markets, online platforms, or direct sales to restaurants and grocery stores.

5. Number of Animals:

- **Market Demand:** Align your initial herd size with the identified market demand. You can always expand your flock as your business grows.
- **Management Capabilities:** Be realistic about your experience level and ability to manage a flock of chickens. Start with a smaller herd size if you're new to livestock farming.

6. Additional Resources

Boulder County animal units:

[Animal Code in Boulder](#)

- Per Article 18-108, animal units establish an equivalent density for various species of livestock.
- Chickens - 50 chickens per unit - 4 units per acre = 200 chickens per acres

Morgan County Animal Units

[Animal Code in Morgan County](#)

Colorado State University:

- Colorado State University Extension: <https://extension.colostate.edu/> offers a wealth of resources for poultry producers, including:
 - Flock management practices
 - Biosecurity protocols
 - Marketing recommendations
 - Educational workshops and events

Poultry Associations:

- Colorado Poultry Association: <https://www.facebook.com/groups/223186221210645/> is a non-profit organization dedicated to promoting poultry production and education in Colorado.

Books:

- **The Backyard Flock: Our Complete Guide to Raising Chickens** by Jeannette Loomis (Loomis, Jeannette)
- **Pasture Poultry Profits: A Practical Guide to Raising Poultry on Pasture** by William G. Andrews (Andrews, William G.)
- **Building Your Own Chicken Coop** by Rob Ludlow (Ludlow, Rob)

Sheep / Alpaca Ranching

1. Goal Setting and Market Research:

- **Define Your Vision:** Establish your long-term goals for the farm. Will you focus on wool production, meat production, breeding stock, or a combination?
- **Market Analysis:** Research the demand for sheep and alpaca products in your region. Identify potential customer segments (textile mills, meat processors, breeders, fiber artists) and analyze prevailing market prices.
- **Market Research:** Investigate the demand for wool or meat in your area. Identify potential customer segments (restaurants, grocery stores, direct-to-consumer) and research prevailing prices.
- **Financial Planning:** Develop a detailed business plan outlining your start-up costs, operational expenses, and projected revenue. This will help you secure funding and make informed decisions.

2. Choosing Livestock and Preparing the Land:

- **Livestock Animal Selection:** Research sheep and alpaca breeds suitable for your climate zone and target market. Consider factors like fleece quality, meat production potential, herd size requirements, and temperament.

3. Animal Management and Husbandry:

- **Pasture Management:** Develop a grazing plan that promotes healthy pastures and optimal forage utilization. Consider incorporating rotational grazing techniques.
- **Shelter and Bedding:** Provide adequate shelter for your animals to protect them from harsh weather conditions. Use appropriate bedding materials for comfort and hygiene.
- **Veterinary Care:** Establish a relationship with a veterinarian specializing in sheep and alpacas for routine checkups and preventative healthcare.
- **Feed and Water Management:** Provide your livestock with a balanced diet formulated for their age and production stage. Ensure clean, fresh water is readily available throughout the day.
- **Animal Acquisition:** Decide whether to purchase infants or older animals. Source your livestock from reputable hatcheries that prioritize animal health.
- **Biosecurity Measures:** Implement a biosecurity plan to minimize the risk of introducing diseases to your herd. This may include quarantine procedures for new animals, and disease management protocol.

4. Legal Considerations and Sales Channels:

- **Marketing and Sales Strategy:** Develop a comprehensive marketing strategy to reach your target customers. Consider online platforms, participation in farmers markets, or collaborating with local yarn stores and fiber mills.

5. Number of Animals:

- **Market Demand:** Align your initial herd size with the identified market demand. You can always expand your herd as your business grows.
- **Management Capabilities:** Be realistic about your experience level and ability to manage a herd of sheep and alpacas. Start with a smaller herd size if you're new to livestock farming.

Boulder County animal units:

[Animal Code in Boulder](#)

- Per Article 18-108, animal units establish an equivalent density for various species of livestock.
- Sheep/ Alpaca - 5 Sheep/ Alpaca per unit - 4 units per acre = 20 sheep/ Alpaca per acre

Remember: Building a successful agrivoltaic sheep and alpaca farm requires dedication, ongoing learning, and a commitment to sustainable practices.

Morgan County Animal Units

[Animal Code in Morgan County](#)

Beekeeping

1. Goal Setting and Market Research:

- **Define Your Vision:** Establish your long-term goals for the farm. What honey products, bees and pollination services will you focus on?
- **Market Analysis:** Research the demand for honeybee products in your region. Identify potential customer segments and analyze prevailing market prices.
- **Market Research:** Investigate the demand for honey or pollination services in your area. Identify potential customer segments (restaurants, grocery stores, direct-to-consumer) and research prevailing prices. Are there opportunities to work for a CO-OP?
- **Financial Planning:** Develop a detailed business plan outlining your start-up costs, operational expenses, and projected revenue. This will help you secure funding and make informed decisions.

2. Choosing Bee breed and Preparing the Land:

- **Insect Selection:** Research different honeybee breeds suitable for your climate and goals (honey production, pollination services). Consider factors like disease resistance, temperament, and honey production volume.
 - a. Connect with local organizations such as Honeybee Herbals - <https://www.honeybeeherbals.co/>
- **Learn the Basics:** Explore beekeeping through resources like books, online courses, or local beekeeping associations. Understand bee biology, hive management practices, and potential challenges.

3. Apiary Management and Husbandry:

- **Choosing a Location:** Select a sunny, well-drained location with access to water and protected from strong winds. Consider the flight paths of your bees and potential conflicts with neighbors. This may look different in Solar Arrays. Be sure to try and understand how Solar Arrays affect bee productivity.
- **Feed and Water Management:** Provide your livestock with a balanced diet formulated for their age and production stage. Ensure clean, fresh water is readily available throughout the day
- **Hive Selection:** Decide on the type of hive you'll use (Langstroth hives are common). Ensure proper ventilation and space for honey production.
- Colorado Honey Finder - <https://localhoneyfinder.org/CO.php>
- Colorado Bee keepers - <https://coloradobeekeepers.org/think-you-want-to-keep-bees/where-to-get-bees/>
- **Acquiring Bees:** Source your bees from reputable beekeepers who prioritize healthy colonies. You can purchase established hives or starter packages with queen bees.
- **Integrated Pest Management:** Have a plan ready to deal with pests such as varroa mites.
- **Hive Inspections:** Regularly inspect your hives to monitor bee health, honey production, and potential problems like pests or disease.

- **Harvesting Honey:** Once your bees have produced sufficient honey, you can harvest honey frames using proper extraction techniques.
- **Processing and Storage:** Process your honey by extracting it from the frames and filtering it. Store honey in airtight containers in a cool, dry location.

4. Legal Considerations and Sales Channels:

- **Marketing and Sales Strategy:** Develop a comprehensive marketing strategy to reach your target customers. Consider online platforms, participation in farmers markets, or collaborating with local beekeepers, apiaries and CO-OP's.

5. Number of Bees:

- **Market Demand:** Align your initial apiary size with the identified market demand. You can always expand your apiary as your business grows.
- **Management Capabilities:** Be realistic about your experience level and ability to manage a colony of honeybees. Start with a smaller apiary size if you're new to beekeeping farming.

Resources for Boulder County Beekeepers:

- **Boulder County Beekeepers Association:** <https://www.bouldercountybeekeepers.org/>
- **Colorado State University Extension:** <https://extension.colostate.edu/> offers resources on beekeeping practices, including:
 - Colony management
 - Disease prevention
 - Honeybee biology

Bee Code Units in Boulder County:

While Boulder County zoning regulations don't limit the number of bee colonies in zones permitting Open Agricultural Uses, it's important to practice responsible beekeeping and consider factors like:

- **Land Size:** Ensure your land has sufficient space to accommodate your desired number of hives without overcrowding bees or causing issues with neighbors.
- **Resource Availability:** Can your land provide enough nectar and pollen sources for your bees throughout the year?
- **Management Capabilities:** Consider your experience level and ability to manage a larger number of hives effectively.

Pig Rearing

1. Goal Setting and Market Research

- **Define Your Vision:** Establish your long-term goals for the pig farm. Will you focus on meat production, breeding stock, or a combination?
- **Market Analysis:** Research the demand for pork products in your region. Identify potential customer segments (restaurants, grocery stores, direct-to-consumer) and analyze prevailing market prices.
- **Market Research:** Investigate the demand for pork products in your area. Identify potential customer segments (restaurants, grocery stores, direct-to-consumer) and research prevailing prices. Are there opportunities to work for a CO-OP?
- **Financial Planning:** Develop a detailed business plan outlining your start-up costs, operational expenses, and projected revenue. This will help you secure funding and make informed decisions.

2. Choosing Livestock and Preparing the Land

- **Livestock Animal Selection:** Research pig breeds suitable for your climate zone and target market. Consider factors like growth rate, meat quality, herd size requirements, and temperament.
- **Animal Acquisition:** Decide whether to purchase piglets, weaners, or breeding stock from reputable breeders.
- **Farm Design:** Design a piggery that provides adequate space, shelter, and waste management facilities. Consider factors like age, group size, and ventilation needs.

3. Animal Management and Husbandry

- **Biosecurity Measures:** Implement a biosecurity plan to minimize the risk of introducing diseases to your herd. This may include quarantine procedures for new animals, footbaths, and regular cleaning and disinfection of pens.
- **Feeding and Nutrition:** Provide your pigs with a balanced diet formulated for their age and production stage.
- **Animal Welfare:** Ensure your pigs have adequate space, proper bedding, and enrichment activities to promote good physical and mental health. Consider humane handling practices during all stages of care.

4. Legal Considerations and Sales Channels

- **Licensing and Permits:** Research and obtain any necessary licenses and permits required for pig farming in your area.
- **Animal Welfare Regulations:** Familiarize yourself with animal welfare regulations and ensure your practices comply with all standards.

- **Marketing and Sales:** Develop a marketing strategy to reach your target customers. Consider farmers markets, online platforms, or direct sales to restaurants and grocery stores.

5. Number of Animals

- **Market Demand:** Align your initial herd size with the identified market demand. You can always expand your herd as your business grows.
- **Management Capabilities:** Be realistic about your experience level and ability to manage a herd of pigs. Start with a smaller herd size if you're new to livestock farming.

6. Additional Resources:

- **National Pork Producers Council:** <https://pork.org/> provides resources on pig production practices, marketing, and regulations.
- **Your Local Cooperative Extension Office:** Offers educational programs and technical assistance for pig farmers in your area.
- **Books:**
 - **The Pig: A Comprehensive Guide to Breeding, Care, and Management** by Jennie S. Vandervelde (Vandervelde, Jennie S.)
 - **Pasture Pigs: Raising Pigs for Profit on Pasture** by Pamela S. Barnes (Barnes, Pamela S.)

Boulder County animal units:

[Animal Code in Boulder](#)

- Per Article 18-108, animal units establish an equivalent density for various species of livestock.
- Pigs - 5 Sheep/ Alpaca per unit - 4 units per acre = 20 sheep/ Alpaca per acre

Morgan County Animal Units

[Animal Code in Morgan County](#)

Factsheets on animal units per acre

Markets / Outlets for Revenue

- Finding outlets for markets will be the best opportunity for product selling
- NGO Markets
 - Local agroforestry non-profit organizations
 - Drylands Agroecology Research
 - Online business Marketing
 - Local county governments

Farmers Markets

- **Adams County**
 - Anythink Huron Street
 - 9417 Huron St., Thornton, CO 80260
 - Tuesdays, June 20-Sept. 26, 2023
 - 9 am-12 pm
 - Anythink Wright Farms
 - 5877 E. 120th Ave., Thornton, CO 80602
 - Thursdays, June 22-Sept. 28, 2023
 - 9 am-12 pm
- **Boulder County**
 - Boulder County Farmers Market
 - 13th Street, Boulder, CO
 - Saturday Market: April 6 – November 23, 2024
 - 8 am – 2 pm
 - Wednesday Market: May 1 - October 2, 2024
 - 3:30 pm – 7:30 pm
 - Longmont Farmers Market
 - Boulder County Fairgrounds 9595 Nelson Road, Longmont, CO
 - Saturday Market: April 6 – November 23, 2024
 - 8 am – 1 pm
- **Morgan County**
 - BRUSH FARMERS MARKET
 - FARMERS & ARTISANS COMMUNITY MARKET
 - BRIGHTON DOWNTOWN SATURDAY MARKET
 - GARDEN OF EATON FARMERS MARKET
 - MILE HIGH FLEA MARKET
 - PARKERFEST FARMERS MARKET
 - JOHNSTOWN MILLIKEN FARMER'S MARKET
 - FREDERICK MARKET
- **Weld County**
 - City of Erie
 - May 9 - September 26 Thursdays from 5 to 8 p.m.
 - Briggs St. between Wells and Moffatt
 - GREELEY FARMERS MARKET & AT THE DEPOT
 - Town of Windsor
 - June 1 to August 31: Saturdays from 8 a.m. to 12:30 p.m.
 - Boardwalk Park, 100 N. 5th St.

Educational Support

1. Supplied spanish webinars for each subject
2. Lien item outline of items for each farming opportunity
3. Risks associated and how to prepare and be resilient for them

Agrivoltaics Webinars

Contact support for each of these

1. List of community contacts
 - a. Spanish speaking friends / people in the area that could help