



# Infrastructure Considerations

## Guide to Farming in New York State

**#3**  
Revised  
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### Operational Considerations - Evaluating Your Farm's Infrastructure

Different farm enterprises will require different types of infrastructure, equipment and resources. It is important to have a good idea of what supporting infrastructure your operation will require and to inventory what exists. A good inventory will help in determining whether the enterprise you are considering is feasible at this point, or whether you have some work to do. As you evaluate what you will need for your farming enterprise, also begin to track the potential costs of necessary improvements.

- ❖ What do I have?
- ❖ What do I need? (And, what do I really need?)
- ❖ How will I get what I need?
- ❖ How much will it cost?

### Buildings

What types of buildings will be needed for the agricultural enterprise you are considering?

- ❖ Will I have livestock that need housing? Remember, livestock facilities need to be correctly sized.
- ❖ Will I need storage facilities for livestock feed, equipment or for product that I will produce?
- ❖ Will I need a barn, greenhouse, washing, grading/packing shed for vegetable and fruit production? Is refrigeration needed, or will I need specialized facilities for processing?

Inventory existing buildings such as barns, out-buildings, sheds and houses. Are these in good repair? Are they adequately sized for your enterprise? You may be able to rent facilities, so keep an open mind when inventorying.

### Power Source

You need to ensure that you have an adequate power source for your enterprise. Some operations may require different power levels, so make sure that there is adequate power capacity on your farm. Over-loading older or limited circuits can be hazardous and even disastrous. You may wish to consult with a licensed electrician to determine if your electrical source and wiring is adequate to supply your needs. If you rely on power for critical elements of your operation, consider having a back-up generator on hand in case of power outages.

### Fencing

If you plan to have livestock, you will need fencing. There are many types of fencing from portable to permanent, and livestock species vary in their fencing needs. Some animals do well with high tensile electric fence while others require a mesh style of fencing. Research what type of fencing you will need for your operation. Check with your local Natural Resource Conservation Service (USDA-NRCS) as well as your county's Soil and Water Conservation District (SWCD) for more information about livestock fencing alternatives and specifications. They should be able to refer you to contractors who install fencing and sell fencing supplies, and may even be able to offer you a cost-share grant for fencing. Consider putting up a perimeter fence and using portable, temporary fencing to form smaller paddocks within the perimeter to rotationally graze livestock.

### Pasture for Horses or Livestock

Putting too many animals on too little land causes reduced productivity to both and can damage the health of the land in the long-term. As a general rule, allow for about one acre of pasture for each 1000 lb. (or one "animal unit") of **cows, sheep, or goats** for the growing season. If you would like to provide hay for your livestock's winter feed needs also, include another acre of pasture per 1000 lbs. of animals. Because **horses** graze over a longer period each day (up to 20 hours), and because they trample a lot of forage in the process, it's a very good idea to provide 2.5 acres per horse of grazing land during the growing season. To get help establishing a successful grazing system, contact your local Soil and Water Conservation District.

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### Deer Fencing

Deer are a major limitation to the production of horticultural crops including fruits, vegetables and ornamentals. Increasingly farmers have to invest in deer fencing in order to successfully grow these crops and minimize losses. Deer fencing is a major investment but a necessity in the long run. Fencing options include: 3 strand wire fence that is electrified or 8 foot high plastic fencing that provides a more secure barrier. For information on deer fencing, check the website: [www.gardening.cornell.edu/factsheets/deerdef/](http://www.gardening.cornell.edu/factsheets/deerdef/). Unfortunately, there are no federal or state programs to help offset the cost of deer fence installation. Therefore, it is a production expense that must be calculated into start up costs.

### Equipment

There is a wide array of equipment available for all enterprises. “Equipment” could mean a tractor and mower or it could mean a hoe and a rake or specialized equipment for processing. So, where do you start? One key is to start small, and build up your farm operation gradually to help you get to know what you need and when you need it. For example, before you purchase equipment talk with other farmers to learn what is essential and investigate options for equipment rental or options to buy used equipment.

Once you have decided what you need, your local Cooperative Extension office should be able to point you towards local equipment dealers or custom operators. You can also ask other local farmers where they shop for their needs. There are a few basic questions to consider when thinking about equipment:

- ❖ Assess what you have and what you need. Ensure that equipment is sized correctly for the job you intend to do with it. For example, ensure that your tractor has adequate horsepower to pull the mower you intend to use.
- ❖ Do you really need it? It may be more economical to rely on a custom operator to assist you or to lease equipment.
- ❖ New or used? There are obvious advantages to each. Consider your needs and financial resources carefully to make the best purchase.

### Water Supply

Water resources include streams, rivers, lakes, ponds, wetlands, springs, wells, and aquifers as well as any means of conveying the water to your facility. You should be familiar with the location of the water resources on your farm. Consider what the water needs will be for your enterprise. For example, horticultural enterprises need a source of water for irrigation. Livestock owners will need to have a reliable and **potable** source of water for their livestock to drink. Whatever the water is used for, you need to determine:

- ❖ Is there enough water for your operation?
- ❖ Is there a way to bring water from its source to where you need it? Or, will you need to install water lines, irrigation structures or animal watering facilities? Keep in mind that all water lines and structures will need to be appropriately sized to fit their purpose. For example, if water lines are too small, you may not be able to deliver enough water to your livestock-watering trough to meet their needs.

### Resources

**NRCS Technical Guide** is an excellent resource for identifying conservation practices that may be needed for your farm operation. Each state’s NRCS Field Office Technical Guide may be found at [www.nrcs.usda.gov/technical/efotg/](http://www.nrcs.usda.gov/technical/efotg/). Landowners should seek assistance from their local USDA NRCS Service Center office, RC&D office, or technical service provider for additional information.

**Your County Soil and Water Conservation District** is available as a technical resource for infrastructure development.

**Your County Cornell Cooperative Extension** can assist you with finding suppliers and dealers for the type of equipment you are looking for. [www.smallfarms.cornell.edu/pages/contact/localcontacts.cfm](http://www.smallfarms.cornell.edu/pages/contact/localcontacts.cfm)



