



Native Agri Update

No. 400 June 2023

FIRST NATIONS AG FOR SEVEN GENERATIONS

In 2020, The First Nations Agriculture for Seven Generations Program was created in partnership by IAPO and Ag-Scape to support increased First Nation participation in the farming and Agriculture Sector.

The goal of the project is to engage First Nation Youth's interest in farming and agri-business possibilities and opportunities through curriculum based lessons. Four lessons have been created for grades 9 - 12. The lessons are:

- Local and Global Food Impact
- Past, Present and Future
- Honouring Our Relationship With Mother Nature
- Food Sovereignty

TEACHING OPPORTUNITY

IAPO is accepting application for our Seven Generations Lead position. Leading IAPO's First Nations Farming for Seven Generations program, the Seven Generations Lead will inspire First Nations Youth's interest in farming and agriculture careers by delivering First Nations Ag for Seven Generation lessons to students in grades 9 through 12. The program will be delivered both in classroom and online to First Nations classes across Ontario.

IAPO is looking for First Nations individuals with experience working in the farming and agriculture sector to facilitate delivery of the First Nations Agriculture for Seven Generations Program. This is a part time position.

This is a great opportunity for aspiring teachers who are in their final year of Teachers College, those who are already certified teachers, or those with relevant experience engaging with First Nations Youth with knowledge of farming and agriculture.

If you are interested in learning more

about this position or the complete job description, email info@indianag.on.ca. If you wish to submit an application, please include a cover letter and resume.

BEGINNING FARMERS PROGRAM

IAPO is pleased to announce we are accepting Beginning Farmers Program application for the 2023 2024 program year. Funding, which extends until March 31, 2024, is provided through the Indigenous Economic Development Fund by the Ministry of Indigenous Affairs.

The Beginning Farmers Program (BFP) is designed to support new beginning First Nations farmers through all stages of farm business start up. The program has two distinct areas of focus: Workshops and Training as well as, Start Up Financing & Grants

Successful applicants will take part in an evaluation to establish current business and skill levels. This information, in conjunction with formal training and support, will be used to create a multi-year business plan. Participation in all workshops throughout the program is mandatory.

On approved projects, participants are eligible for financing up to \$50,000 and a 30% cost share grant. For projects exceeding total financing of \$50,000, applicants may be eligible for further support through the First Nations Business Start Up and Expansion Program. Applicants must contribute a minimum of 5% equity.

Applications will be accepted until August 31, 2023. Participation is limited and selection will be based on applications submitted. For more information or an application, call 1 800-363-0329 or email info@indianag.on.ca.



Indigenous Economic Development Fund

The views expressed in this publication are the views of IAPO and do not necessarily reflect those of the Province of Ontario.

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INTEREST RATES STILL ON THE RISE

By: Craig Lord <https://globalnews.ca>

The Bank of Canada raised its benchmark interest rate on Wednesday, June 7 amid fears that a hot economy could mean inflation gets stuck “materially” above its 2% target. While most economists were not expecting the move, some now say one hike won’t be enough and additional increases might be coming this summer.

The central bank raised its benchmark interest rate to 4.75% on Wednesday, an increase of a quarter-percentage point. The Bank said in a statement accompanying the decision that policymakers felt the previous rate of 4.5% was “not sufficiently restrictive” to bring inflation back down to its target.

What this means for borrowers with the benchmark rate up that brings the banks prime rate to 6.95%. This will affect all future borrowing and those that have loans with a variable rate. The cost of borrowing is high and debt management will be key to many farming operations through this year and into the next.

2023 BEEF PRICING OUTLOOK

source: Canfax – www.canadiancattlemen.ca

Cattle found substantial tailwinds, making new record-high prices in 2023 due to decreasing herd numbers being faced with demand from beef production. Feeder prices in the first quarter of 2023 have approached the record highs from 2015. Following two years of drier conditions, Canadian and U.S. cattle inventories were lower to begin 2023. Fed cattle slaughter has tightened of late to be below year-ago levels but still remains higher than the five-year average. Despite record-high cattle prices, margins are being squeezed by feed grain prices which have eased somewhat but remain well above historical levels.

Total cattle and calves on January 1, 2023, were 2.2% lower than in 2022, at 11.27 million head. Canadian cattle inventories have been declining steadily since 2018 and tighter North American cattle inventories have supported prices in 2023. Nationally, the beef cow herd declined 2.5% to

CANADIAN CATTLE AND CALF INVENTORIES (JANUARY 1, 2023)			
Thousand head	2023	2022	% change
Bulls	210.1	213.2	-1.5%
Beef cows	3,562.4	3,652.8	-2.5%
Dairy cows	968.5	969.4	-0.1%
Dairy heifers	409.5	413.3	-0.9%
Beef heifers (breeding)	551.5	576.0	-4.3%
Beef heifers (slaughter)	722.4	711.0	1.6%
Steers	1,239.2	1,230.5	0.7%
Calves	3,606.4	3,753.8	-3.9%
Total	11,270.0	11,520.0	-2.2%

3.56 million head as of Jan. 1, 2023, down 4.8% from the 2018 peak.

Feeder imports in the second half of 2022 supported beef production again. In the first half of 2022, Canada was a net feeder exporter of 24,000 head, but in the second half, we transitioned to be a net feeder importer of almost 150,000 head.

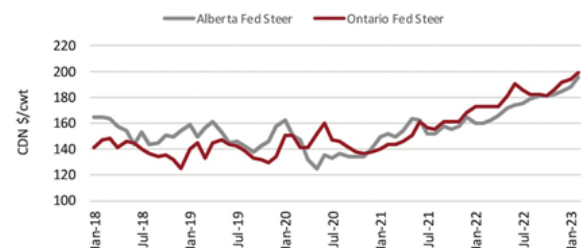
U.S. inventories - Beef production Peaks

Total U.S. cattle inventories as of January 1, 2023, were 89.3 million head, contracting another 3% from 2022. The U.S. herd is now in its fourth year of decline, with additional herd reductions expected this year. Current total cattle inventories are only 0.5% above the 2014 low. The U.S. beef cow herd shrunk 3.6% to 28.9 million head. From the highs in 2019, the U.S. beef cow herd has declined by more than 9% and is at its lowest level since 1962. Source: USDA

Total beef production in 2022 was 3.62 billion pounds, the highest since 2008. This was up 2.3% from 2021 and up 9% from the five-year average. To March 25, 2023, domestic beef production was steady with last year. Slaughter numbers in 2023 have been driven by non-fed cattle, up 13%.

Canadian slaughter was running on all cylinders in 2022, with federally inspected packer utilization at 94 per cent. Western packing plants had 19 weeks where slaughter was over 100 %. Any reductions in slaughter in 2023 will still have utilization levels well above the 10-year average.

▶ ALBERTA AND ONTARIO FED STEER



Cattle prices setting new highs

Ontario fed steers were more inconsistent in their climb, but ended 2022 at \$191/cwt, 10% higher than January. Ontario fed steers have maintained that momentum into 2023, pushing the \$200/cwt mark. By mid-March, new record-high prices for fed steers and heifers were set.

Despite record-high prices, feedlot margins continue to be squeezed by high feed grain prices. The Canfax Trends report estimates feedlot margins on the cash market, for yearling steers and heifers placed in September and sold in March 2023, of -\$45 to -\$205 per head.

Going into the second half of 2023, the demand for beef is still looking to remain robust, with both herd numbers in Canada and the US still on the decline. Prices are looking to remain steady into the end of 2023.

Market Information

BEEF MARKET WATCH

Prices are courtesy of the Beef Farmers of Ontario Weekly Market Information Report for the week ending Friday, June 16, 2023. Changes in this chart reflect the difference in prices from the week of April 10th, 2023 to the week of June 12th, 2023. Weekly reports provide prices on a per cwt basis for the week but do not include Friday sale results.

Auction markets reported trade as active and strong with prices steady to higher.

The Ontario railgrade market saw prices increase June 8th by \$5.00 cwt with sales reported at \$415.00 dressed for steers and \$414.00 cwt for heifers and held steady at this price until Thursday afternoon of this week. Delivery started out for the week of June 12th but by Monday cattle were being scheduled for the week of June 19th.

2,220 fed/cull cows sold through auction markets this week which is fully steady to last week but 634 more than this time last year. Cows ranged from \$103.60-\$158.27 averaging \$128.57 cwt down \$5.57 from last week but \$20.80 higher than last year at this time. This is the first week cow prices have declined week over week since the end of April.

Seasonally lighter receipts of stocker and feeder cattle sold through auction markets this week at 3,192 head, down 757 from last week but 1,365 more than this time last year. Most categories of steers are averaging around \$90.00 -

\$100.00 cwt stronger than this time last year while heifers are up mostly \$60.00-\$90.00 cwt

Category	Price Range \$	Ave Price	Top Price	Change
Rail Steers	415			
Fed steers	238-250	245	260	+11.8
Fed heifers	230-250	241	241	+11
Cows	104-158	129	199	+14
Bulls	136-182	160	320	+6
Stocker steers				
700 – 799	275-325	297	351	+16
600 – 699	264-349	302	405	+8.6
500 – 599	267-361	315	424	+9
Stocker heifers				
700 – 799	217-281	255	317	+11.8
600 – 699	220-301	257	327	+8
500 – 599	214-295	258	335	+3.6

All prices are on a hundred pound basis (cwt)

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CROP MARKET

Adapted from Market Trends Report June July 2023 by Phillip Shaw GFO www.gfo.ca

Corn Are corn prices set to go downhill or sideways into October? It almost feels that way now but of course you could also make the argument we are at the knife point for weather. Forecasters this weekend are talking for a wetter and cooler forecast which should be a game changer for the US and Ontario crops. Markets will react accordingly to the precipitation forecasts.

Seasonally, corn prices tend to peak in early June and bottom out in early October.

Soybeans The weather scenario is not playing out the same way in the soybean market as usually it takes some weather event later on in August to affect soybean yields. Over the last week or so soybeans have actually risen in price partly reflecting the higher soybean oil market.

There was some interesting news last week that the European Biofuels Association was complaining that China's biodiesel exports may have come from a

cheaper feedstock that don't meet Europe's renewable standards. This could lead to greater interest in American biofuels from Europeans boosting long term American demand. As it is, the demand for American biodiesel is a huge stimulus for soybean cash prices in the United States.

Seasonally, prices tend to peak in early July and bottom out in early October.

Wheat The USDA predicted record global wheat production something that we have become accustomed to. However, with a Dam being bombed in Ukraine and the calamity caused afterwards you would think that the wheat market would show some concern regarding Black Sea grain activity.

However, it has not, and this is somewhat surprising as the funds are short wheat, and it seemingly wouldn't take much to get them to cover their shorts.

The big record Ontario wheat crop continues on its journey toward harvest with dry weather certainly impacting the crop. Over the past few weeks producers have been deciding whether to spray fungicide in a weather environment where fusarium is unlikely. However, rain predicted for the weekend of June 11th will probably save yield to some extent for what is expected to be a very big harvest. As it is, cash wheat prices in some cases are less than half of what they were last year

Coming Events

- July 4** **FNWE Program On Line Info Session - 7 p.m.** For more info or to register fnwe@indianag.on.ca or 1-800 363 0328
- July 20** **EAF0 Field Day at Sunrise Heirloom Vegetables and Santosha Farms - 10 a.m.** To register: efao.ca/event/field-day-sunrise-heirloom/
- July 20** **Eastern Ontario Crop Diagnostic Day - 9 a.m.** To register: <https://eocdd.eastontcropconference.ca/>

Livestock Information

RAISING WEANER PIGS

Raising pigs on a small scale can be rewarding for those who enjoy working with animals and having home-raised meat in the freezer. This will be the first of two articles on raising weaner pigs to market. There are two great resources on this topic in PDF format: The Canadian Small-Scale Pig Farming Manual (March 2021) and the Small-Scale Pig Production in Ontario Manual (November 2019). They can be readily found with an online search.

Before starting with your own pigs, there are a few considerations that will make your efforts simpler. Consider these key points: 1) Start small. Take time and become comfortable raising a few pigs before expanding your operation. 2) Purchase healthy pigs from a reputable supplier. Avoid auction marts, as pigs from multiple sources may be mixed there. It is recommended to buy from a single source herd that has been tested and is free of or vaccinated for common diseases. Purchasing a cheap pig will generally cost you more in the long run due to costs associated with disease, mortality, and slow growth. Cheap pigs are not always cheap pigs in the end. 3) Select a breed that best suits your operation and goals. 4) Ensure you have the right supplies and equipment on hand.

You should think about how and where to have your pigs butchered and processed and how you will transport them to that location. Abattoirs can get busy and may require 3 months advance notice. What weight of pig would be good for you? Look for growthy pigs. Eight-week-old pigs should weigh at least 35 pounds. Twelve-week-old pigs should weigh at least 60 pounds. Look for healthy pigs. Alert, active pigs are usually healthy. Avoid pigs with rough hair coats and wrinkled skins. Avoid pigs with skin lesions which may be caused by lice, mange, or pig pox. A commercial pig will weigh about 250-270 pounds live before butchering, and produce about 185-210 pounds of meat.

Start small with two to four weaner pigs, typically purchased in the spring and raised until market weight (late fall). This will give you an opportunity to understand the requirements and commitment required in raising pigs. Once you have become comfortable raising weaner pigs you can increase your numbers.

Housing: There are a number of different housing and pen options for weaner pigs. It is important to determine which one works best for your situation and for the pigs. Pigs require shelter that will protect them from the elements and predators. A basic roofed structure will be sufficient, as long as the ground/flooring remains dry inside and pigs are protected from draft in cold weather. Pigs sunburn easily, particularly the lighter skinned breeds, so if they are housed outside having access to shade is important. In hot weather, shade from trees or a shade cloth structure will be cooler than an enclosed shelter, and preferred by the pigs. A well-constructed shed or barn can be a perfect shelter, but there are other suitable options as

well. For example, large bales of straw arranged in the form of a shelter are a cost effective way to house your pigs. The bales provide thick walls, insulated against the cold and damp, and the pigs can pull bedding from the inside of the bales to maintain a comfortable pack. Pigs are great escape artists. Pigs will root at any weak spots they find, eventually causing damage and potentially creating an escape route. Panels or walls making up pens should be high enough that the pigs cannot walk or jump over them, but also be accessible to the caretaker. A good guideline for height would be at least 36 inches.



If pigs have outdoor access it is important to ensure fencing is strong and secure in order to prevent their escape, prevent predators and other wildlife from entering the enclosure. There are many different options for fencing including wire mesh, electric, wood, high tensile wire, and pipe panel. De-

pending on the size of your pigs, you will want to select fencing with spacing small enough to prevent pigs from slipping through.

Feeders and Waterers: A growing pig will drink 6% to 10% of their body weight per day, so you must have a source of clean, fresh water. This can be a challenge both due to the volume and having a secure and accessible waterer. Many options for watering systems exist. Nipple drinkers or a concrete or stainless-steel trough fixed to the ground or side of the pen would work well in a permanent location. If the pigs are on rotating pasture areas, a large trough or durable livestock tub can be used, however consideration should be given as to how to get water to the trough to fill it. Watering troughs and nipples should be at a height that is accessible to the pigs as they grow. Troughs need to be cleaned out and fresh water added daily as they are easily soiled by pigs manuring or walking through them.

Age of Pig	Body Weight in pounds	Daily Intake in pounds	Feed Protein Level (%)
8 weeks	40	1.2-1.6	18
12 weeks	75	2.5-3	16
16 weeks	125	3.5-4.5	16
20 weeks	175	4-4.5	15
20+ weeks	200-250+	6-7	14-15

Feeders should follow similar set ups as for water troughs. The size of the feeder should be relative to the number of pigs and should be easily accessible. It is recommended to have a maximum of 13-18 pigs per pig space at the feeder. However, consider that having a greater number of feeder spaces allows more pigs to eat at once which is a normal behaviour in herd animals like pigs. Also consider how the feeder will be re-filled; for example, for a few pigs, a trough that can be refilled by hand over the side of the pen would work fine. Feed troughs should be weather and pest proof. In an outdoor or pasture feeding system, consider using feeders with flip-up covers on the top and over the feeding spaces.

In the next article we will cover sanitation, pasture management, and more on feeding.

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Crop Information

IRRIGATION FOR FRUIT AND VEGETABLES

source : <https://www.ontario.ca/page/irrigating-vegetable-crops> , <https://extension.umn.edu/vegetables/irrigation-strategies-vegetables>

To achieve maximum production, most veg and fruit crops require a uniform supply of moisture throughout the growing season. In Ontario, the average rainfall is 70mm or 2.75 inches per month during the growing season. For most vegetable crops, this provides only 65% of the water needed for optimum yield. (*Irrigating vegetable crops*|Ontario.ca) To help correct this natural moisture imbalance, irrigation of these high value crops is essential.

Though adequate soil moisture throughout the season is key, there are some critical times when having enough moisture is critical. In almost all cases, the critical period is during flowering and fruit or pod formation for flowering crops, during head formation for head forming crops, and during bulb or root enlargement for bulb and root-forming crops. Often times, this is during the hottest and driest part of the summer.

Crop	Most Critical Period
Broccoli, cabbage, cauliflower, lettuce	head development
Carrot, radish, beet, turnip	root enlargement
Sweet corn	silking, tasseling, and ear development
Cucumber, eggplant, pepper, melon, tomato	flowering, fruit set, and maturation
Bean, pea	flowering, fruit set, and development
Onion	bulb development
Potato	tuber set and enlargement

Table source: Midwest vegetable production guide for commercial growers

There are multiple methods that can be used to determine whether to irrigate, and to and to set up scheduling to avoid drought stress and provide water when most needed.

Irrigation Scheduling

The first is to do a “**feel test**”, which is to see if the soil “feels” dry enough to irrigate, or whether there is enough moisture to hold off. While this method is cheap and quick, it leaves a little to be desired for accuracy.

Soil moisture is typically sampled in 1-foot increments to the root depth of the crop at three or more sites per field. For each sample the “**feel and appearance method**” involves squeezing the soil sample firmly in your hand several times to form an irregularly shaped “ball”. The next step is to squeeze the soil sample out of your hand between thumb and forefinger to form a ribbon. Observe the soil texture, ability to ribbon, firmness and surface roughness of ball, water glistening, loose soil particles, soil/water staining on fingers, and soil colour and compare what you see to the following chart to estimate the percent water available.

Most crops in the critical period will need over 75 - 100% available soil moisture. Potatoes for example need over 75% available during growth, 80% during set and 90% during tuber fill or enlargement.

Available Soil Moisture %	Moderately Coarse Texture (fine sandy loam, sandy loam)	Medium Texture (silt loam, sandy clay loam, loam, very fine sandy loam)	Fine & Very Fine Texture (clay, silty clay, sandy clay, silty clay loam, clay loam)
100	Upon squeezing, no free water appears on soil but wet outline of ball is left on hand.		
75-100	Forms weak ball, breaks easily when bounced in hand*	Forms ball, very pliable, slicks readily*	Easily ribbons out between thumb and forefinger.*
50-75	Will form ball, but falls apart when bounced in hand.*	Forms ball under pressure*	Forms ball, will ribbon out between thumb and forefinger.*
25-50	Appears dry, will not form ball with pressure*	Crumbly, holds together from pressure*	Somewhat pliable, will ball under pressure.*
0-25	Dry, loose, flows through fingers	Powdery, crumbles easily.	Hard, difficult to break into powder.

A more accurate method is using a **water budget**, which uses climatic data that can be obtained from sources like Environment Canada to estimate the amount of water lost from the rooting zone through crop use and evaporation. Water budgets take into consideration the type of soil, the crop water use by type of crop, the historical evapotranspiration, available soil moisture, and irrigation method, to create a calculation of the amount of water to apply in mm/hour or litres per hour. This method has the benefits of no equipment requirements, being accurate, and flexibility for adaptation with multiple crops. More info on calculating water budgets can be found online at <https://www.ontario.ca/page/irrigation-scheduling-fruit-crops> or at <https://www.ontario.ca/page/irrigation-scheduling-tomatoes>.

Tensiometers are a tool that measures how strongly water is being held by the soil. When a soil begins to dry out, moisture become more tightly held to soil particles and becomes less available to the crop. With a tensiometer, a lower number indicates that soil is wet, and as the reading increases, it shows that the soil is drying out. Tensiometers are best suited for sandy and loamy soils, but do not work well on clay type soils as available moisture can be beyond the detection limits of the device. These units need to be properly installed and removed from the soil before winter.

Another tool for measuring soil water tension is an **Electrical Resistance Block**. Watermark is a brand of resistance-based sensors. These are portable meters that are easier to install than tensiometers and can be relatively low cost. They are also more conducive to reading soil moisture at multiple sites and work better in clay type soils.

Irrigation Systems

There are multiple types of irrigation systems that can be used in vegetable and fruit crops.

Hand-Moved Sprinklers are the least expensive irrigation system. They are labour intensive, requiring manpower to move the laterals through out the field. These sprinklers distribute water uniformly, though do not work well in tall crops. It is best to use a rain gauge to determine how much water has been applied. In situations where frost can be a concern, the hand-moved sprinklers can be used for frost protection.

Travelling-Gun Systems are another form of aerial irrigation. These systems are relatively expensive and require....

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Other News

FIVE TIPS WHEN CREATING A BUSINESS PLAN

source: nibusinessinfo.co.uk

A business plan is essential when starting a business. It will help you to clarify your ideas, spot potential problems, set SMART goals, measure progress and plan for growth. You will also need a business plan if you want to secure financing from a financial institution.

Check out the following 5 tips about how to prepare a successful business plan:

1. Outline your business goals.

Provide details including when the business will open/expand, who are the key people involved in your business and how you will manage finances. Keep SMART goals in mind. SMART stands for specific, measurable, achievable, relevant and time bound. This is so that anyone reading it can understand what will be done and who will do it.

2. Research your markets and competitors.

Demonstrate that you're fully aware of the marketplace that you're planning to operate in. Competition is not necessarily a bad thing but do prove that you will be able to attract clientele despite potential competition.

3. Provide realistic financial forecasts.

Show financial projections that support what you've said about your business. Typically, your forecasts should run for three years. The first 12 months' forecasts should include the most detail.

4. Plan your executive summary.

Although the executive summary is typically shown first, it should be written last. You should note what you will include in it, throughout the planning process. The executive summary outlines key points of your entire business plan. It is usually the first section that people will read. Include highlights from each section – make it engaging and avoid jargon.

5. Present in a professional format

A well-presented plan will reinforce the positive impression you want to create for your business. Use a business plan template to keep you focused and simplify the process of creating your own. Futurepreneur.ca and BDC.ca both provide excellent business plan templates.

If you're a First Nations woman looking for help with your business idea, financing or help with a business plan, please contact Jackie Stott, FNWE Business Coach at: jackie@indianag.on.ca or 1800 363 0328.

FNWE
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IRRIGATION FOR FRUIT AND VEGETABLES

(continued from page 5) larger equipment to facilitate set-up and take down. Less labour is required compared to hand moved sprinkles.



Emitter in a lateral line

Drip (Trickle) Irrigation is a system that is made up of drip lines that are laid along the crop rows. The drip lines are made of plastic tubing with emitters built in to release the water. Compared to overhead irrigation, crop yields tend to be higher, and when a fertilizer injection system is added, yields can be increased further still. Installation of a drip system can be costly, though the resulting labour cost throughout the season is relatively low after the initial installation is done. Drip irrigation systems use less water, because the water is applied directly to the soil. Water is not lost to evaporation or applied to foliage that does not take the water in. It also provides a uniform supply of water through out the season.



Pump and filtration system

A Drip Irrigation system consists of a filtration system, a flow meter, pressure regulator, main lines, header lines, and lateral lines that have the built-in emitters (drip tubing or tape). If choosing to use fertigation, a fertilizer injector can also be added.

Practical Tips As the critical growth period approaches during mid-season, it is important to minimize the risk of not meeting the plants water needs. It can be helpful to project the water needs ahead by two or three days to plan when a crop is going to be irrigated to avoid stress. If you are using a drip irrigation and are unable to water everything at once, schedule irrigation a few days in advance to get ahead of a water deficit. During the late season when the crop nears maturity, you can generally increase the frequency of irrigation as there is more demand.

While factoring in the stage of the crop and the type of crop, consideration must be given to weather-patterns such as hot, dry weather which will result in more evapotranspiration. Soil type is also important. As stated before, a clay-type soil has more water holding capacity and may not need irrigation given the same weather conditions as a silt-loam or sand-type soil.

No matter the size or scale of your fruit and vegetable operation, irrigation can be the key to having successful growing season. If you are at the stage of laying out your design for your operation, consider that the irrigation timing and method that both works within your budget, as well as your labour availability. Water and energy efficiencies should be factored in as well, as the initial cost of setup may be beneficial over the long-term life span of your garden or farm.

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