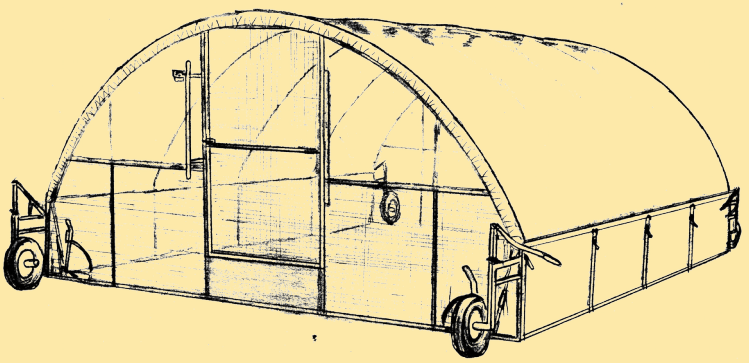
CACKELLAC Shelters

2018
Product "Cackellog"



Pastured poultry solutions

Notes on Safety and Warranty

Always keep toes away from under the shelter when lowering it!

Always use all four anchors to prevent the shelter from shifting or even blowing away, and causing damage or loss of property and the poultry. The shelter is not guaranteed for strong gales. Note: The shelter can catch wind even when there is no cover installed.

If the ground is very soft and wet, especially in high-wind areas, you may need to add the screw-in anchor package. See Earth Anchor Kit under "Options".

Cackellac shelters are a very good tool to provide the main line of defense against predators. However, we can not guarantee complete protection. You may need to use other measures for more security, such as using portable electric fencing around the pasture area.

If your area experiences heavy snowfalls or deep, wet snow, you may need to insert one or more props under the ridge pole as needed during winter. (If you decide to remove the cover for the winter and roll it up on the aluminum tubes, you must protect the polycarbonate on the end panels from sunlight - UV coating is applied only to outside of polycarbonate.) If you take the precaution of not parking it next to a windbreak or on the leeward side of a building, there should be no problems in most areas.

We do not cover damage caused by extra heavy snow loads.

Warranty: If a part malfunctions or breaks under normal use within the first three years we will work with you to get a suitable solution. This may be replacement of the defective part, or having a local welder repair it.

Prices are as of March 2018 and are subject to change without notice.

Cackellac Shelters - helping farmers with the challenges of outdoor poultry production.

We have been experimenting with pastured poultry systems since 1999, and have gradually developed a system that works well for us.

Mobile shelters have become a preferred method of providing poultry with truly fresh pasture, while protecting them from predators and the weather. Several types of “chicken tractors” are common: tractor-drawn skid shelters, sometimes with electrified netting fence around them, and “Salatin-style” wooden pens that can be moved by hand. Since the skid-type hoophouses need to be moved with a machine, there is a risk of crushing birds while moving. They are also hard to maneuver in tight corners. The low wooden pens on the other hand, besides also being cumbersome to move, are uncomfortable to climb into, when you need to do any chores inside the pen.

The Cackellac line of shelters addresses these problems.

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With a Cackellac Shelter, you can move your poultry to fresh pasture daily. This gives the birds more chances at bugs, forage, and bits of rock, which not only reduces grain consumption, but also improves their health. Moving is simplified by the Cackellac’s convenient lifting wheels and hanging feeders and waterers. At our farm, one person moves about five or six pens in half an hour, including feeding and watering.

If you do not have much pressure from aerial predators, you may decide to park the Cackellac and have the chickens free ranging from it during the day. This is normally done by surrounding the shelter with electric netting. The removable panel under the door makes it easy to let the birds out during the day.

Cackellac shelters are versatile – they can be used for turkeys, laying hens, meat chickens, ducks, geese (and even sheep!) In the winter months, when a Cackellac is not being used for poultry, it can double as storage, a wood shed or a greenhouse — and you can park it exactly where you want it!

The four wall panels of the 1312 are shipped complete, ready to be assembled. Assembly instructions make it possible for a handy person to do it in an afternoon; the 812 is even faster.

Whether you raise a few backyard chickens, or several thousand, we trust you will be able to benefit from the result of our research and efforts!

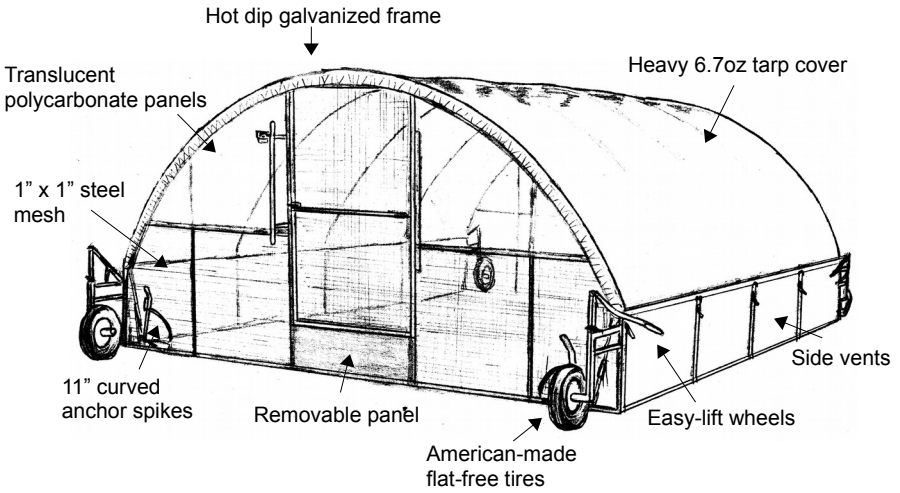
Cackellac Model 1312

Our largest unit, model 1312, measures 13'x16' – enough space for up to 100 meat chickens, or approximately 80-100 laying hens. To move the model 1312, you simply flip up the anchor and lift the wheel lever to desired height at each corner. Now you're ready to push it ahead one pen length.

Basic 1312 shelter includes:

- Heavy cover (6.7 oz) made from white woven poly fabric with 10 x 10 weave; Canadian made from highest quality material
- Translucent polycarbonate panels to partly cover the ends
- Four flat-free wheels that engage in seconds
- American-made wheels featuring oil-impregnated bronze bushings
- Side tarps that open for warm weather
- Quick anchoring system to help prevent moving on windy days.
- 1x1 inch welded wire mesh to keep out most predators
- Nylon straps and ratchets for fastening the cover down securely
- 6 ½ foot high interior, so you can walk around inside

Cackellac 1312 - Sug. Retail: $2895.00



Cackellac Model 812

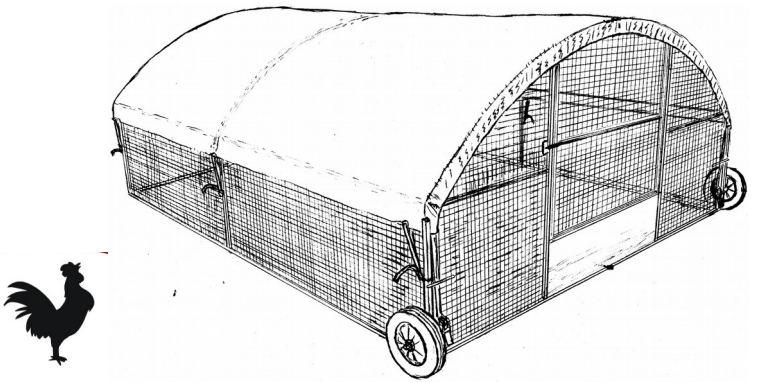
Model 812 measures 8 ft. wide by 10 ft. long, and stands 4 ft. high.

- Can house about 30 to 40 chickens, depending on their size
- It has two lifting wheels to make it easy for one person to move
- Cover is a heavy (6.7 oz) woven white poly fabric with 10 x 10 weave; Canadian made from highest quality material
- Nylon straps with ratchets and buckles to securely fasten cover
- Hot dip galvanized frame for many years of service
- 1x1 inch welded wire mesh on the sides and ends, to keep out most predators
- Hooks for hanging feeders and waterers
- Tread-in anchors

Basic 812 shelter:

- ***includes*** *hot-dip galvanized frame, white cover, and wheels.*
- ***does not include*** *waterers, feeders, Side-Closure kit, clear greenhouse cover, roosts, or nests for laying hens.*

Cackellac 812 – Sug. Retail: $1295.00



Cackellac Model 322

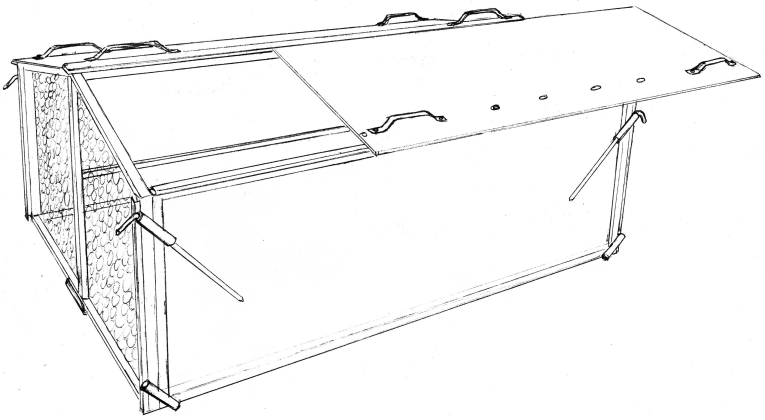
NEW mini Cackellac poultry shelter for up to 6 chickens – for small backyard flocks!

This mini "chicken tractor" is lightweight and easy to move every day; but it withstands winds because of the anchors that pin down all four corners.

Features:

- measures 3 ½ feet x 5 feet
- aluminum frame
- built-in roost
- coated mesh on the ends
- strong polycarbonate sides and roof
- anchors for all four corners
- easy access with sliding roof opening on both sides

Cackellac 322 – Sug. Retail: $496.00



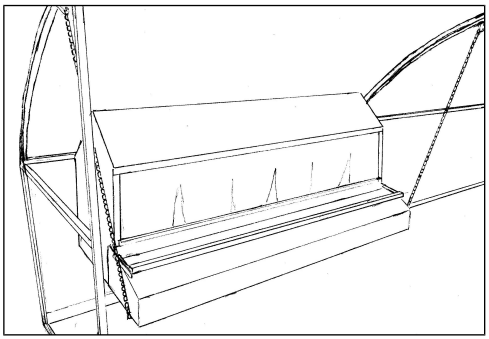
To use the Cackellac 322 as a cold frame, ask your dealer for the optional clear panels for the roof and ends.

Options And Accessories
To Maximize Your Cackellac's Efficiency

Roll-out Nests

For laying hens. Compact design fits Cackellac shelters

- Hangs on the side wall of the Cackellac 1312 or 812
- Lightweight aluminum construction
- Community style --no partitions
- Prevents hens from favoring certain nest boxes
- Standard model will serve up to 50 hens
- Roll-out feature keeps eggs clean
- Removable nest pad is easy to clean



Use one unit for model 812; and one or two units for the 1312 depending on the number of hens you will have in the shelter. If you provide too little nesting space, you will simply have to pick more eggs off the floor!

When the shelter is on a side hill, you can adjust the hanging chains to help level the nest.

Double deck nest for stationary chicken coop

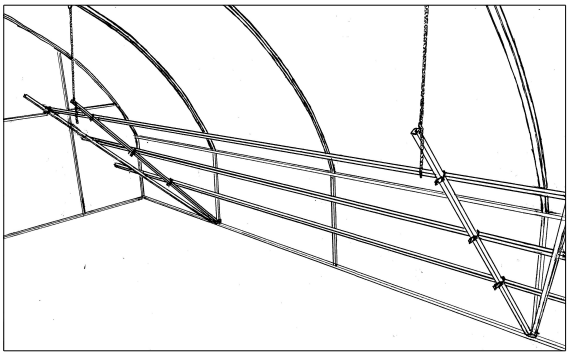
- designed to be hung flat on a barn wall
- aluminum construction
- community style
- 48” long, will serve up to 100 hens

Roll-out nest for 1312 - Product # 171 - Sug. Retail: **$288.00**
Roll-out nest for 812 - Product # 271 - Sug. Retail: **$288.00**
Double Deck Roll-out Nest - Product # 671 - Sug. Retail: **$368.00**
Replacement nest pad for all nests - Product # 1719 – Sug. Retail: **$34.00**

Roosts for Model 1312

Laying hens and game birds need a place to roost for the night. Our lightweight, high-strength aluminum roosts easily bolt on the side wall of the Cackellac 1312, opposite from the nest. These roosts make efficient use of space, compactly fitting under the curve of the hoops.

You'll need one set of mounting brackets and 2 - 4 roost bars. Clamps are included with bars.



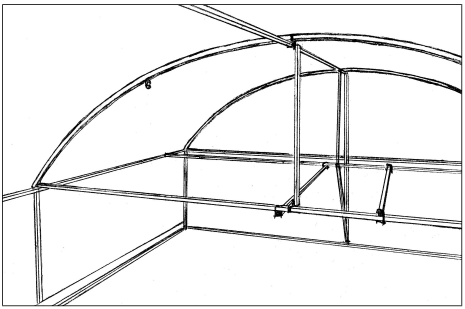
We suggest one bar for a maximum of 28 standard size laying hens. If you are organic, the standards allow 7" per hen. (24 per bar)

We now offer heavy duty roost bars for turkeys or other heavy fowl. Use the same support brackets, but order the heavy bars.

1312 Roost support brackets set - product #140 - Sug. Retail: **$84.00**
1312 Standard 14 ft. roost bars - product #145 - Sug. Retail: **$26.00 ea.**
1312 Heavy 14 ft. roost bars - product #145H - Sug. Retail: **$32.00 ea.**

Roosts for Model 812

The basic Cackellac 812 comes with a center crossbar, which is part of the roost support frame. This provides space for up to 12 hens to roost. For more space, you can purchase the roost kit.

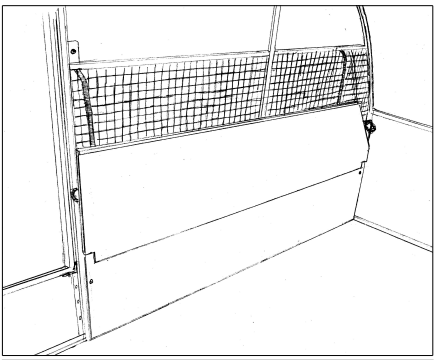


The **roost kit** adds a rear crossbar, and two short roost bars. The short roost bars can be clamped to the support frame wherever you want, using the supplied clamps. The support frame and two roost bars provide space for 35-40 hens, which is the maximum number for comfort in the 812.

812 Roost kit - Product #230 - Sug. Retail: **$76.00**
Spare roost bars - Product #236 - Sug. Retail: **$12.00 ea.**

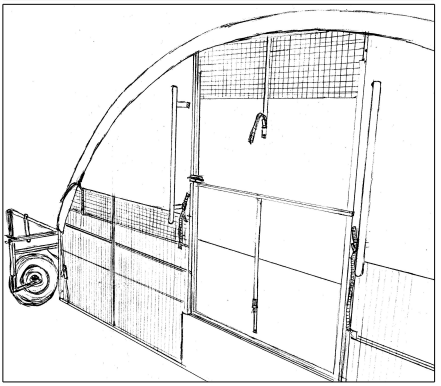
End-Closure kit for 1312

The End-Closure kit is designed to fully cover the openings of the Cackellac 1312. Since part of the top half is covered with polycarbonate panels, you just need to close off the rest of the openings to completely enclose it. The panels of the End-Closure kit are all durable double-wall polycarbonate.



Add the End-Closure kit to convert the Cackellac 1312 into:

- a brooder for chicks
- a winter coop for laying hens
- a greenhouse

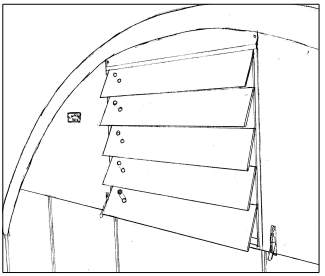


What's included in the End-Closure kit:

- four top panels, adjustable for ventilation
- four removable bottom panels
- two sliding panes for the door
- removable cover for the square vent at top rear

The End-Closure kit can be factory installed for an extra charge - this saves on shipping costs.

End-Closure Kit for 1312 - product #150 - Sug. Retail: **$660.00**
Installation charge for 1312 End-Closure panels - **$99.00**



Louvre vent insert: As an option, you can upgrade to the louvre vent insert for the rear vent opening. The louvre will be supplied instead of the plain panel.

The vanes of the vent are operated by a gel-filled strut that operates them automatically to regulate temperature. This is an extra measure of security for the times when you can't be there in sudden weather fluctuations. The louvre keeps out rain, while still allowing ventilation.

Louvre vent insert unit - product #190 - Sug. Retail: **$228.00**

Earth Anchor Kit

Major wind events happen, and can do much damage in a short time. Although our basic shelters all feature integrated anchoring systems, we urge you to consider whether you might need the extra safety of our screw-in anchor kit to further secure the shelter. These anchors screw into the ground in seconds if you have a large cordless drill (minimum 18 volts) and our driver bit. Or you can use the manual crank to quickly screw them in. The kit comes with four galvanized earth anchors, and straps that are fastened to the corners of the Cackellac.

To move the shelter: release ratchet, unsnap the strap, remove the anchor with the drill and driver bit; then screw it back in after moving, and re-attach the snap; then ratchet tight.

Earth anchor kit - product #195 - Sug. Retail: **$80.00**
Driver Bit for earth anchor kit - product #196 - Sug. Retail: **$11.95**
Hand crank for driving anchors - product #197 - Sug. Retail: **$24.00**

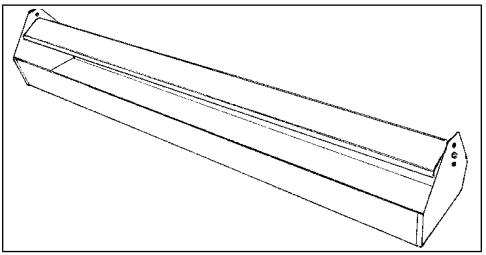
Poultry Feeders

Jumbo Feeders for Cackellac 1312 and 812

Pan style feeders provide more feeding space, and prevent waste. Our jumbo size feeders offer these features:

- 24 ga. galvanized steel construction
- Largest pan type feeder available
- Holds 15-20 lbs of feed
- Measures 48” x 8” x 3¼” deep
- Hang from the hooks on the hoops of the shelter

Hanging up the feeders makes the Cackellac much more efficient to move regularly. You don't have to remove the feeder and put it back in every time you move the chickens. Hanging chain kits are available for both models.



48" Feeder Product # 173 - Sug. Retail: **$44.00**
Feeder hanging chain kit for 1312 - Product # 174 - Sug. Retail: **$10.95**
Feeder hanging chain kit for 812 - Product # 274 - Sug. Retail: **$6.95**

Hanging Poultry Feeders for Cackellac 322

3-pound Hanging Poultry Feeder - Product # 372 - Sug. Retail: $14.95

11-pound Hanging Poultry Feeder - Product # 373 - Sug. Retail: $24.95

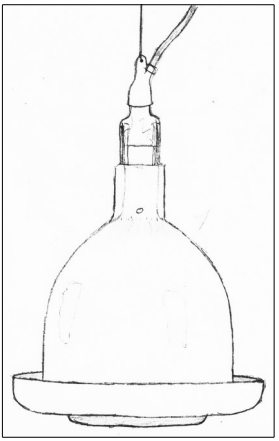
Hanging chain kit (for above feeders) - Product # 374 - Sug. Retail: $4.95

Automatic hanging waterers

To speed up the process of moving the shelter, you will want to have hanging waterers as well. We offer kits based on several types of water fountains.

Plasson Waterers

The Plasson "bell type" waterer is the old standard gravity fed waterer. (Note: You can not connect this one directly to a garden hose without a pressure reducer.)



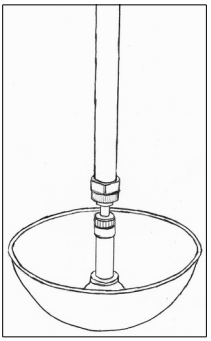
We use this waterer with a reservoir kit (available separately). You should fill the reservoir *after moving* the shelter, using a garden hose. If you have a pasture water line fitted with quick-connect hydrants, you just plug in a riser with a lead of poly pipe or heavy duty garden hose attached to it.

Plasson waterer assembly

- for Cackellac 1312 Product # 186 - Sug. Retail: **$98.00**
- for Cackellac 812 Product # 286 - Sug. Retail: **$98.00**

Miller Waterers

- Hangs by its feed hose (included)
- Works with either gravity feed or garden hose



The Miller waterer is ideal if you can have a direct garden hose connection. The kit does also include the fittings to attach to the optional reservoir.

If you want to use the Miller waterer with the optional reservoir, which is gravity flow, (and especially in hot weather), two may be advisable for the 1312. A second waterer is also insurance for when you may have one plugging from dirt or algae.

If you are using the gravity flow reservoir with a large number of chickens or

for turkeys, you can opt for the larger King Size Miller waterer.

Miller waterer assembly

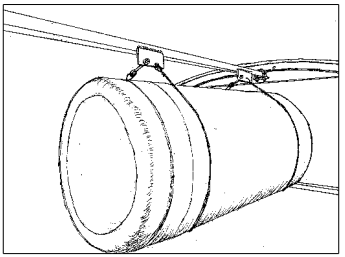
- for Cackellac 1312 - Product # 185 - Sug. Retail: **$68.00**
- for Cackellac 812 - Product # 285 - Sug. Retail: **$68.00**

Miller King Size waterer assembly

- for Cackellac 1312 - Product # 184 - Sug. Retail: **$77.00**
- for Cackellac 812 - Product # 284 - Sug. Retail: **$77.00**

Reservoir Kits

- For use with Plasson waterer, or other gravity fed waterers.
- Nylon straps hang it from ridge pole



55-Litre Reservoir Kit for 1312:
Product #180 - Sug. Retail: **$32.00**
20-Litre Reservoir Kit for 812:
Product #280 - Sug. Retail: **$36.00**

Hanging Waterer for Cackellac 812

- Includes its own 20 litre reservoir
- Nipples in the bottom provide water as needed
- No standing water - prevents contamination
- Waters up to 20 birds

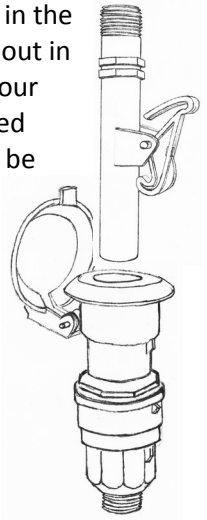
Hanging Nipple Waterer for 812 - Product # 270 - Sug. Retail: **$32.00**

1-gallon Waterer for Cackellac 322

- galvanized steel bucket waterer
- easy to carry
- stand it upright to fill
- tip on its side to use

Product # 370 - Sug. Retail: **$22.95**

Plasson Quick-Connects



A simple and effective way to supply clean water anywhere in the pasture. We use these hydrants in water pipes that are laid out in pastures. The same line can water other livestock besides your poultry. Ordinary black pipe can be plowed in, or co-extruded black/white can be laid above ground. The system needs to be drained for the winter, by simply unscrewing the hydrants and allowing some of the water to drain.

- Space hydrants regularly along water line.
- Just plug in a riser and fill your Cackellac's reservoir directly.
- Hydrants shut off when you unplug the riser.

Hydrant (with cap) – Product #177 – Sug. Retail: **$21.95**
Riser – Product #178 – Sug. Retail: **$8.95**

Replacement Covers

Small farmers know the importance of efficiency and dual purpose equipment. The Cackellac 1312 just needs a few extra accessories to convert it to a greenhouse in the off season! In less than an hour you can change the cover, and have a very useful growing tunnel or greenhouse to extend the growing season.

The clear greenhouse cover is made from the same heavy material as the standard white cover. Although light transmission is a little less than clear plastic, a woven cover diffuses light, which reduces shaded spots. These tough woven covers should last much longer than plastic.

To make it faster to change covers, you can buy an extra set of tubes and straps, and leave them in the covers. (See kit below, product # 176.) This saves having to remove the tubes and straps every time and re-inserting them in the sleeves of the other cover. In this way, you can simply roll up the unused cover on the tubes.

Note: You also need the End-Closure kit to use the 1312 as a greenhouse.

1312 11 mil woven poly, **clear** - Product # 175 – Sug. Retail: **$348.00**
1312 white **replacement cover** - Product # 124 – Sug. Retail: **$348.00**
812 white **replacement cover** - Product # 220 – Sug. Retail: **$136.00**
Spare tubes and straps kit for 1312 cover - Prod. # 176 - Sug. Retail: **$98.00**

Resources

The following section is intended to answer some common questions, based on our experience. However, it is only from our perspective, and is definitely not an exhaustive guide. Do make use of the many specific resources that are now available on the subject. We will mention a few to get you started.

Joel Salatin's book, *Pastured Poultry Profits*, has been the standby reference for several decades (www.polyfacefarms.com).

Raising Poultry on Pasture by American Pastured Poultry Producers Association (APPPA) is another excellent newer guide. The APPPA itself has good information as well. (Phone: 570-584-2309, website: www.apppa.org)

Practical Pasture Poultry Production Pointers

In recent decades, many country folk are going back to raising pastured poultry. But there have been many improvements over free ranging barnyard birds in Old MacDonald fashion, or the dusty chicken-wire run.

Since Virginian farmer Joel Salatin wrote his famous book (mentioned above), movable shelters have become a popular alternative. They offer protection from weather and from predators, and moving them daily also gives the chickens a controlled portion of fresh pasture. Chickens raised in a portable pen and moved regularly, eat more grass, legumes, forbs and insects to supplement their diet, and typically consume less grain. If they are crowded or not moved regularly, the feed consumption will noticeably increase.

We will give some suggestions for raising the most common types of poultry.

Laying Hens

Egg layers chickens are probably the easiest poultry to raise and are very popular. Their basic needs are feed, water, a place to roost for the night, and a place to lay their eggs.

Pullets:

Pullets can be bought ready-to-lay, usually 18-20 weeks old, or you can buy chicks and raise them yourself. Raising layer chicks is the same as for meat chickens – they need to be brooded with a heat lamp or thermostatically controlled propane brooder for several weeks. Then you can move them outside in a pasture poultry shelter.

Pullets are fed starter and grower feeds until they start to lay eggs, then you switch them over to layer ration. Always try to switch gradually by first mixing in the new feed for several days.

Feeding:

Layers consume up to 50% less feed when they are on pasture. If you keep them in an unheated Cackellac in winter, they will need more energy, but not more protein. Feeding more feed with a lower protein content will accomplish this.

Layers need less feed than meat chickens, so if you feed twice a day or don't limit their feed, they require somewhat less feeder space. However, many producers use two feeders for a Cackellac model 1312.

Nests:

We prefer the nests without dividers, which have proven to accommodate more hens for their size. A four-foot nest serves up to 50 hens, so the 812 needs one, and two will do the 1312. Roll-out nests are a good insurance against hens pecking and eating eggs. Another huge bonus is less time spent cleaning eggs! The eggs roll out of the nest and under a cover at the front of the nest box where you can later gather them. The nests are lined with a special easily-cleaned pad, which eliminates the need for bedding, and lets the eggs roll out freely.

What if some of the hens don't lay in the nest? You can try putting some straw in one end of the nest for a few days. Also try blocking off any corners where they are laying on the floor. It's best to have the nest in their shelter early, so they can get used to it. Ideally, you would have it in the pen before

buying pullets.

Roosts:

According to the Canadian Organic Standards, you should allow a minimum of 7 inches of roost space per hen. In the 1312, that would mean one 14-foot roost bar for every 24 hens.

Summer Housing:

We put about 80-100 hens in a model 1312 shelter and move them twice a day. Model 812 is good for 25-35. The more you crowd them, the less pasture they get, so they'll need more grain. If you put 80-100 in a 1312 you should try to move them twice a day.

For reference, the Canadian organic standard allows 1.79 square feet per bird, which is a maximum of 116 layers in a Cackellac 1312 and 44 in the 812.

Winter Housing:

We overwinter laying hens outside in Cackellac 1312 shelters equipped with the End-Closure kit. We also add a layer of double-bubble foil insulation under the tarp cover; this can be installed by loosening off the straps and sliding in two seventeen-foot-long pieces cut from an 8-foot wide roll of insulation. Double bubble insulation can be bought on an 8-foot-wide by 62-foot-long, or 4-foot-wide by 125-foot-long roll, from building supply stores. This would be enough for one Cackellac 1312, with enough left over to do most of another one. (See more information under **Meat Chickens: Brooding** below.) To further winterize the shelter, you may add double bubble on the rear end, tucking it under the cover and taping it on with builder's Tuck Tape around the bottom. This helps to keep it tight around the rear. This does further darken the interior, however.

In our experience, mature chickens are happier outside with some shelter, than in a normal chicken coop, which is often poorly ventilated in the winter. Fresh air and sunlight are very important in preventing diseases, and destroying germs which are bad for the health of poultry. A south-facing Cackellac allows sunlight to enter in the ends, but keeps the storm out. A healthy, vigorous chicken used to a fresh, cold environment will be able to withstand lower temperatures than a confined bird that is diseased.

If you lack the confidence to try it, you may want to look up an old book called "Open-Air Poultry Houses For All Climates" by Prince T. Woods, M.D.

It has been reprinted, or it can be downloaded for free. The main emphasis in this book is leaving the front of the winter coop open, and eliminating drafts in the rest of the building. It's a short read, and well worth it.

When positioning your Cackellac in its winter location, you will need to select a high, dry spot where you know that there will be no water flow during snow melt or rain. Put down a thick layer of partially composted manure or hay, and park the Cackellac on top. Turn the door to the south, to get maximum sun, for the chickens' health and to gain free solar heat. The floor must be kept dry at all times and well covered with bedding. Our preferred types of bedding are sawdust, shavings or shredded straw. These materials are quite absorbent, and therefore don't build up such a deep bedding pack.

Shorter days in winter means less egg production. If you don't mind interfering with the natural daylight cycle, you can improve production by using artificial lighting on a timer. The common recommendation is 15-16 hours of lighting, starting early in the morning, so they can retire with the sun in the evening.

Meat Chickens

It takes about 8 weeks on commercial feed to grow out one flock of White Rock meat birds to about 6 lbs, so you can do at least two flocks in one season. The White Rock (Cornish cross) cockerels are the most commonly used for high production. These are readily available at standard hatcheries and will have a larger amount of breast meat. Specialty hatcheries have traditional 'dual purpose' breeds and crosses, that grow slower than White Rocks and therefore often have tastier meat. These breeds also usually are more hardy and have somewhat less disease.

Brooding:

You need a brooding room that is safe from cats, rats and weasels, etc. In the warm months you can start chicks in the Cackellac right out in the field, using the End-Closure kit and a propane brooder. We also highly recommend that you add a layer of double-bubble foil insulation under the tarp. This can be gotten from a local building supply store, in 4' or 8' widths. Cut 17-foot lengths and tape them together to form a sheet 16 feet wide. This 16-foot width will not completely reach the side wall of the shelter, but we normally use it like this. If you want, you can add another narrow strip to make it wider. However, remember that most of the heat is lost out the top.

To install the insulation blanket: If you already have the cover on the shelter, you will need to undo the straps on one side of the cover and loosen the ends. Then slide the sheet between the hoops and the cover from outside. Alternately, you can slide individual 4-foot-wide by 17-foot-long pieces under the cover, from inside, and tape the joints after. This layer greatly increases heating efficiency, and keeps condensation from dripping from the roof. Be aware that it will be a little darker with the opaque layer in the roof, but we do sometimes leave it in for the summer; the light still comes in the ends.

It is important to get rid of any source of drafts at ground level. Eliminating square corners is also a good idea, so the chicks don't pile up in the corner to keep warm and end up smothering each other. Bed them with lots of newspapers to start, or peat moss or fine shavings. Later you can use coarser shavings or straw if you want. The chicks need to be brooded under heat lamps or a thermostatically controlled propane brooder. Another useful device is a heating plate, which imitates a mother hen – the chicks go under it to keep warm. Start at 33 degrees Celsius and adjust as needed, as they grow more hardy. You can see they need more heat if they are huddling under the heat source. Chicks usually need 2 ½ - 3 weeks of heat before moving them out to pasture, depending on the weather. Once they have their feathers, they can tolerate more chilly weather.

Feeding:

Use chick starter ration for 3-4 weeks, then you can gradually switch them over to grower feed. Feed them as much as they want, being sure to provide enough feeder space per bird.

We recommend feeding twice a day. One of our large 4-foot feeders is enough for up to 50 medium-sized meat birds; if you have larger White Rocks, you might need one feeder per 35. We prefer pan type feeders for the following reasons: the round hopper feeders have more feed capacity but only half the feeding space of a 4-foot pan type feeder, so feed consumption may be restricted; feed can be wasted with a hopper feeder; and besides, when moving the shelter before feeders are empty, you have to move the extra weight of the feed. Chickens prefer short forage, preferably less than 8 inches; this is also higher in protein.

Other Production Tips:

For a discussion on how many chickens each shelter can house, see the "Meat Chickens" section below in "The Bottom Line". The short answer for

now is “about 100 for a 1312, and 40 in the 812”.

We grow them to 5-8 pounds dressed weight, which is about 7-11 pounds live weight. Dressed weight is about 70% of live weight. When the chickens need to be caught for processing, we simply carry crates into the Cackellac early in the morning or at night and catch the sleeping birds.

On very hot, humid days: For heavy chickens, take away feed for the heat of the afternoon, so they don’t generate so much body heat. Sprinkling them with a light mist helps cool them down, or even just going into the pen to get them up helps to release heat.

Turkeys

Brooding:

Turkeys are notoriously hard to start off, but after they have been brooded for 3-4 weeks they can be moved out to pasture and usually will have minimal problems then. They need more heat when brooding, starting at 35-37 degrees Celsius and adjusting as needed. If they all huddle under the brooder, raise the temperature; if they avoid being under the brooder they are too warm, and you need to lower the heat.

It's best not to use fine sawdust for bedding, as they may try to eat it. Be sure to have lots of feeders and waterers close to them, because turkeys have trouble learning to eat. You can try putting marbles in the feeder to attract them to the feed. Give them a high protein diet to start, up to 30%, then drop to 22-25% grower at 6-8 weeks.

Other Production Tips:

Turkeys are aggressive foragers, so once they are outside, they will get more of their diet from the pasture.

Blackhead is a disease that infects turkeys from nematodes in the soil. A remedy that we have used with success is to mix a round teaspoon of cayenne pepper in every 5 gallon pail of feed.

If you plan to raise them to an average of 15-18 lbs dressed weight, you can put about 45 turkeys in the Cackellac 1312, or 15 in the 812. If you want to grow them bigger you would reduce the amount accordingly. The Canadian organic standards allow up to 1102 live pounds of turkey per 1312, which is about 45 at 18 pounds dressed weight.

Ducks and Geese

Use a higher protein diet for starting ducks and geese. After moving them out, they get some protein from pasture. They eat lots of grass, so you need to move them regularly. Put about 60 ducks or 40 geese in a Cackellac model 1312, or 25 and 15 in the 812.

Ducks like to have a tub of water to splash in, but this is not essential. Do provide a separate source of clean drinking water if you decide to place a swimming pool in their pen. Ask for the Plasson Turkey or the Miller King Size waterer for ducks and geese.

General Information

Adding hydrogen peroxide or apple cider vinegar to the waterers every time you fill them is a good idea, to prevent the valves from clogging with algae. More importantly, this helps keep bacteria from multiplying, thus reducing the spread of diseases. Another benefit of apple cider vinegar is that it lowers the pH of the water; this has been shown to improve gut health.

Remember that the type of customers that want pastured poultry typically also prefer non-GMO. You will want to consider this when planning your feed sources.

Problems

In both organic and conventional production, if you are losing too many birds, it is important to have a fresh dead one analyzed. This can be at a veterinary clinic, agricultural college or extension agency. The cost is not prohibitive; and you need to know what you are dealing with so you can find a solution. Lab analysis is important since many diseases can have similar symptoms.

Always look for nutritional and environmental causes and solutions for diseases. Many problems can be traced to management lapses, such as impure water, poor ventilation, and insufficient nutrient levels.

The Bottom Line

Now for the important part!

Since we get many inquiries on profitability, we have put together some general numbers to ***help you get started*** in your own planning. There are many variables, such as climate, breeds, feeds, and so on.

Even though pastured poultry gets some nutrition from grass, bugs and "dirt", the biggest cost is still feed. Therefore feed consumption is the most important place to start. We will give some suggestions on how to estimate your poultry's consumption.

Traditional breeds will usually eat a little less per day, but they will also grow much slower, therefore they end up eating more feed in total. You can assume that it will take several weeks longer to raise a traditional breed chicken, for example, than a standard White Rock Cornish Cross.

Another variable is the type of feed. If you make your own feed, using your own grains, or if you mix in some whole grains to 'cut' the commercially bought ration, you should be prepared for much slower rates of gain. Commercial feeds are formulated using specially selected high-protein and high-energy ingredients and sophisticated mineral, vitamin, and amino acid balancing plans. This level of precision is usually not duplicated on the farm level. We don't have ready access to some of their ingredients and nutrition science. So go ahead and make your own feed if you have the equipment and some instruction on rations, but don't expect the same rate of gain.

We did not add labor costs to the following profit analyses. We just divide the net profit by the man-hours spent in brooding, feeding, processing and marketing. To estimate your feeding time, you can figure about 5-10 minutes to move and feed the birds in one Cackellac 1312, twice a day. For egg-layers, you must add time spent packaging eggs as well. (If you use our roll-away nests, there should be much less cleaning!)

Meat Chickens

One Cackellac 1312 can do about 100 meat chickens, depending on size.

According to Chicken Farmers of Canada's (CFC) Animal Care Program you can have 1320 lbs live weight (approximately 924 lbs dressed) in the 1312. This would be 132 chickens at seven pounds dressed weight – which is 10 pounds live weight. For the 812 this is 507 lbs live weight (approximately 355 lbs dressed) which is 50 ten-pound live chickens.

However, we prefer to not crowd them to the max. Looking at the Canadian organic standards density, we come up with 894 lbs live weight for a Cackellac 1312. This would be just over 100 nine-pound chickens, live weight; which is a dressed weight of about 6 ¼ lbs. If you want to grow a batch to, say, 8 lbs dressed weight, you might reduce that to about 80 birds per 1312 shelter.

Rule of Thumb: about 650 lbs of dressed chicken for a Cackellac 1312.

Rule of thumb: ***To convert live weight to dressed weight:*** For White Rock chickens, figure about 70-75% of live weight to estimate dressed weight.

Rule of thumb: ***To estimate how much feed you need:*** *For White Rock / Cornish Cross chickens:* multiply the live slaughter weight by a factor of 2 or 2.5. For example, if you want to slaughter a chicken at 9 pounds live weight, you would figure 18 – 22 ½ pounds of feed. This is based on good management practices, commercial feed from the mill, and carefully brooded chicks. If you move the birds less frequently, have poor quality pasture, or chicks with poor vigor, feed consumption can be higher.

For other specialty free-range crosses, and traditional breeds: there is no easy rule. The free-range types will be faster growing than most older breeds, but still several weeks slower than White Rocks. You should expect to multiply the live weight by a factor of 2.5 or more. Traditional breeds can be dual purpose (more common) or meat breeds, which also makes a difference in weight gains. You should assume a much slower rate of gain and therefore poorer feed efficiency for all of the older breeds.

Another variable is the market weight -- how much you spread out the cost of growing the chick. The price of a chick – say, from $1.00 to 1.60 – plus the cost of electricity or propane for brooding, plus your time to source the chicks and start them off, are costs that will not change even if you grow a bigger bird. So the bigger you grow them, the more you can spread out the starting costs. Therefore, you should charge more per pound for a 4-pound chicken than for an 8-pound chicken.

To help you develop your own profitability analysis, we will give you a suggested template here. *This is based on two batches* of organically fed chickens per year put through a Cackellac 1312. Remember that feed costs could be quite different in your case, depending on regional prices; whether you buy in bulk or bags; organic, non-GMO or conventional.

Expenses:	
200 chicks at a cost of $1.60 each	$320.00
Electricity for brooding	$30.00
Bedding for brooder	$35.00
Feed: 9 kg per bird x 200 birds = 1800 kg x $1.20/ kg for organic feed	$2160.00
Processing cost: $4.00 per bird x 190 chickens (figuring 5% losses)	$760.00
Cost of transportation to and from abattoir	$200.00
One Cackellac 1312 (including feeders and waterer) depreciated over 15 years: $3138.90 ÷ 15	$209.26
Total expenses:	$3714.26
Income:	
190 chickens (figuring 5% losses) at 2.8 kg x $12.00/kg	$6384.00
Total income:	$6384.00
Net profit:	$2669.74

.....Hey, you pretty much paid for your Cackellac already in the first year, even though we had paid for it over 15 years by figuring depreciation! (Of course, we expect the unit will last a lot longer than that, but eventually you will need a new cover, and maybe tires or other parts that get damaged for some reason.) As you work at determining your actual costs, you can fill them in to replace our theoretical numbers. This will give you a much more accurate figure.

Rule of thumb: ***To check your pricing:***

With chickens produced on pasture and moved regularly, you should figure for at least $10 profit per bird, as a baseline. In the example above, we had $14.00. This exercise is to ensure that your pricing is not way too low, considering the higher labor of a pasture-based operation.

You can get a good estimate of prices in your area by visiting a farmer's market. If you use conventional feed, which costs about half as much as organic, you could charge less per pound for your chickens. Chickens sold at the farm gate also might be sold for less. Selling at a market costs more, but will increase your sales volume, and make it easier for people to find you.

Laying hens

Standard ISA brown egg layers, the common pullets sold at feed stores and poultry supply places, are bred for high production. They will lay an egg

almost every day. We will base our figures on this breed. If you prefer the traditional dual purpose breeds for the sake of aesthetics, better meat yield and more hardiness, you can adjust these numbers to fit your situation. These dual purpose hens may produce about 75% of the eggs that the ISA brown hens will, on average. They do well in the spring, but tend to be more seasonal, and may even shut down over winter if they are not provided with a light source to extend the day length.

If we figure about 275 eggs in a year (at 75% laying rate), this translates to 23 dozen. Again, there can be big differences in prices - between organic and non-organic eggs, selling at your door, at a farmer's market, or wholesale, and graded or ungraded. Prices may range from $3.00 to $9.00 or more. For an example, we'll take an average farm gate price, because the higher price at market is mostly to offset your higher input cost (getting to market, stall rental, extra time, etc.). Figuring, say, $5.00 per dozen for organic eggs, multiplied by 23 dozen, we gross $115 per hen.

Subtract your feed cost, which is again variable. A mature modern hen eats about 100-110 grams per day. If you winter hens in an unheated Cackellac shelter, they will require more energy, but not more protein. Figuring an average of 110 grams per day, this would be 40.15 kg in a year. At an estimated farm store shelf price of $27.00 for 25 kg organic feed, which is $1.08/kg, it would cost $43.36 to feed that hen for a year, assuming you live in an area where the chickens have to be kept inside for half of the year. (Of course, in some areas you can have them outside much more of the time.)

Let's put some of this down in a table:

Expenses:	
Cost of 90 ready-to-lay pullets at $10.00 each	$900.00
Feed for a year: $43.36 x 90	$3902.40
Oyster shell for extra calcium	$40.00
Bedding in winter	$50.00
One Cackellac 1312 (including roosts, 2 nests, waterer and feeder) depreciated over 15 years ($4270.80 ÷ 15)	$284.72
Total expenses	$5177.12
Income:	
2070 dozen organic eggs at $5.00/dozen	$10350.00
90 stewing hens @ $2.00 each for meat	$180.00
Total income	$10530.00
Net profit:	$5352.88

As with the meat chickens, you can replace the theoretical numbers with more concrete prices as you get them. You can find out local price for organic and conventional free-range eggs at the farmer's market.

Turkeys

You can grow 45 turkeys up to about 18 pounds dressed weight in one Cackellac 1312. (See discussion in "Production Pointers")

We will include a chart from the book entitled "From Field to Feeder" by Homestead Organics.

Feeding programs for male and female turkeys

The following tables provide estimates of peak rates of feed consumption and weight gain. The data were obtained from large white turkeys under conventional management (with no additional forage). Free-ranging birds fed organic feed will eat less feed and have a slower rate of weight gain.

Males					
Age	**Type of feed**	**Feed consumption (weekly per bird)**		**Live body weight**	
(weeks)		**kg**	**Lb.**	**kg**	**lb.**
2	turkey starter	0.19	0.42	0.25	0.55
4	turkey starter	0.70	1.54	1.00	2.21
6	turkey starter	1.10	2.43	2.20	4.85
8	turkey grower	1.73	3.81	4.00	8.82
10	turkey grower	2.34	5.16	6.00	13.23
12	turkey grower	2.99	6.59	8.20	18.08
14	turkey grower	3.47	7.65	10.50	23.15
16	turkey grower	3.97	8.75	12.60	27.78
18	turkey grower	4.30	9.48	14.40	31.75
20	turkey finisher	4.74	10.45	16.10	35.50
22	turkey finisher	5.00	11.03	17.90	39.47
24	turkey finisher	5.28	11.64	19.40	42.78
Total		**68.69**	**151.46**		

Based on data from Nutrient Requirements of Poultry. 9th Ed. National Academy of Sciences. USA 1994.

Females					
Age	Type of feed	Feed consumption (weekly per bird)		Live body weight	
(weeks)		(kg)	(lb.)	(kg)	(lb.)
2	turkey starter	0.18	0.40	0.24	0.53
4	turkey starter	0.59	1.30	0.90	1.98
6	turkey starter	0.80	1.76	1.80	3.97
8	turkey starter	1.21	2.67	3.00	6.62
10	turkey grower	1.70	3.75	4.40	9.70
12	turkey grower	2.18	4.81	6.00	13.23
14	turkey grower	2.69	5.93	7.50	16.54
16	turkey finisher	3.00	6.62	8.90	19.62
18	turkey finisher	3.18	7.01	10.20	22.49
20*	turkey finisher	3.40	7.50	11.50	25.36
Total		**36.09**	**79.58**		

Based on data from Nutrient Requirements of Poultry. 9th Ed. National Academy of Sciences. USA 1994

* Females are normally not raised for longer than 20 weeks.

Some growers get faster gains than this table shows.

To calculate your potential profits for turkeys, you can use the template from the meat chickens section, when you have determined whether you will have males or females, and what weight your market wants them.

Ducks

Again we will add some information from Homestead Organics:

> During the first week of life, a duckling will eat about 45 g (0.1 lb.) per day. When almost fully grown, the young duck will eat 250 g (0.55 lb.) per day. Mature ducks eat 170 g (0.37 lb.), and laying ducks eat 375 g (0.83 lb.) per day. In confined pens, white Pekin ducks can reach a live weight of 3.4 kg (7.5 lb.) in 8 weeks, eating a total of 9.7 kg (21.5 lb.). Muscovies eat less feed and forage more. They grow more slowly than Pekin, Rouen, Cayuga and other Mallard-derived ducks. Muscovies often take 16-20 weeks to mature. At this time, the females weigh around 2.3 kg (5 lb.) and the drakes weigh approximately 4.5 kg (10 lb.).

Note: Another benefit of Muscovy ducks is their bigger size; which means less processing cost per pound.

Feeding program for ducks

Age	Type of feed	Feed consumption (weekly per bird by end of period)		Live body weight (at end of period)	
(weeks)		(kg)	(lb.)	(kg)	(lb.)
0-2	Duck or chicken starter	0.22	0.50	0.76	1.68
2-8	Duck or chicken grower	1.50	3.40	3.40	7.50
Total		**9.70**	**21.30**		

Based on data from Nutrient Requirements of Poultry. 9th Ed. National Academy of Sciences. USA 1994.

Based on data from white Pekin ducks fed high-protein diets in pens. Foraging free-range ducks fed an organic diet will likely eat less and grow more slowly.

Geese

Geese can be fed either chicken or duck feed. Organic farmers usually allow the geese to graze. The pastured birds take longer to mature than penned birds but are less expensive to raise due to the lower feed consumption. Whereas penned birds may reach market size at 10 weeks of age, it may take pastured birds 24 weeks to reach market size.

Feeding program for geese

Age	Type of feed	Feed consumption (weekly per bird by the end of the period)		Live body weight (at the end of the period)	
(weeks)		(kg)	(lb.)	(kg)	(lb.)
0-4	Duck or chicken starter	1.50	3.30	2.05	4.50
4-10	Duck or chicken grower	2.30	5.10	4.85	10.70
Total		**16.11**	**35.40**		

Based on data from Nutrient Requirements of Poultry. 9th Ed. National Academy of Sciences. USA.

Based on data from Embden geese fed high-protein diets in pens. Note that free-ranging organically fed birds will have both lower rates of feed consumption and slower rates of growth.

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CACKELLAC Shelters

Cackellac - kak'-uh-lak: (from cackle: a happy sound produced by chickens; and Cadillac: a large luxury car; or an outstanding example of its kind, in luxury, quality or size.)

1. A brand of chicken tractor built for quality and convenience
2. A poultry shelter that can be moved by hand

Your dealer: