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THE RANIDAE

HOW TO BREED,
FEED AND RAISE
THE EDIBLE FROG

PUBLISHED BY
THE MEADOW BROOK FARM
ALLENDALÉ, N. J.

The Ranidae

THE EDIBLE FROG.

"RANA ESCULENTA."

HOW TO BREED, FEED AND RAISE THE EDIBLE FROG.

A Book of Great Value to Beginners,
Covering Every Detail Thoroughly.

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WHAT TO DO AND HOW TO DO IT.

PRICE \$1.00.

PUBLISHED AND EDITED BY
THE MEADOW BROOK FARM,
ALLENDALE, NEW JERSEY.

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PREFACE.

Think of it! "One Dollar a Pound."

The Editor of this book was brought face to face with the true possibilities in Frog raising by his love for this delicate meat and his inability to get it. As I had visited all the principal markets in New York City, a market where it is known the world over that if there is anything in the eatable line to be found it can be found there. This was not so of frog meat. After making several attempts and failing, finally one day I found about twenty pounds, which had been shipped from a distant point, and when I inquired the price? "*One dollar a pound,*" it set me to thinking, as it will you, now that I have brought the subject to your notice. At prices like this and the demand far in excess of the supply, as I had inquired of the market man if he had many calls for frog meat, and his reply was, "More than we can get to supply." Now what more inducement does anyone want? This information should make you ambitious to go into the business of Frog Raising. You hear on all sides of you to-day that there is no opportunity to go in business and make money, as all the branches of industry are overproduced. Here surely is one line of business that is not overproduced. And a business that is not necessary to large capital to start, and one that bids fair to bring him who ventures good profitable results.

FROG RAISING.

Information for Beginners.

We are constantly in receipt of inquiries from parties who want information regarding the raising of Frogs. So we have compiled the following pages to answer more fully such inquiries than we can by letter. If you do not find the information you want contained herein, let us hear from you, and we will take pleasure in advising you to the best of our knowledge.

The author of this book conceived the idea that there was a large amount of money to be made in Raising Frogs.

The object in publishing this book is to get persons who are so situated that they can make a business of raising Frogs interested so as to supply the growing demand that is year by year increasing, and with a price ranging from seventy-five cents to one dollar and fifty cents a pound. This should be an incentive to anyone to start in the business, when the work of Raising Frogs is so simple, and with such large returns to repay one for their efforts.

The principal thing is to study the nature of the Frog in habit and breeding. What knowledge we have in the breeding and raising is given herein, and with the experience gained from observation in Raising Frogs it soon becomes an interesting and profitable business. Frog Raising will bring in more profit for the same amount of time and money invested than any other industry that we know of. Every farmer, or farmer's boy, should have a Frog pond and Raise Frogs.

It is one of the lines of business that we have heard about, "That makes money for you while you sleep."

Many farmers already have Frog ponds, and at a greater profit than any other investment they have on their farm of a like amount. Poultry keepers should have a small Frog pond, especially if they market their product in some city near their Plant and have individual customers, and sell their product direct. They would always have a steady market for more Frog meat than they could supply, and at large profitable prices, as it's a luxury that most people indulge in and would do so more often if they knew where to get Frog meat.

Try yourself to buy Frog meat, and you will soon find that it's not to be had at any price in most places, and when it once becomes known that you are Raising Frogs you will soon find that your demand for Frog meat is much greater than you can supply. It works in very well with poultry raising if you can construct your ponds at not too great an expense, and is much more profitable considering the investment and work.

Those Desirous of Light Work.

Many who are unable to do heavy work will find Frog Raising a very desirable occupation. Being in the open air it tends to health, which is beneficial to those who are sickly and to whom it becomes necessary to take up one of the lighter occupations. The work is light and with care and study can be made a source of a substantial income, and carried on intelligently Frog Raising is as certain a business and as profitable if not more than many undertakings, and you will always find a ready market for all the Frogs you can raise. Any one of the large Hotels or Restaurants in New York City will use more Frog meat in a year than one Frog Raiser can supply, and you can get a standing order for shipments of a certain number of pounds each week. Make inquiries along this line and you will soon be convinced of the opportunity this business offers.

For the Country Home.

If you are living in the city the greater part of the year, and so fortunate as to have a country home, you by all means should put in a pond and Raise Frogs, as they will be a delicacy for yourself and also your friends when they come from the city to see you. And they will be one of the natural products of the country, which one comes from the city to the country to enjoy, and to many they will be an interesting and novel sight. And in winter, when you are away, they will be dormant and need no care.

As a Business.

If you are going into Frog Raising as a business, we recommend that you make a small beginning, for nothing is more discouraging, after having gone into a business exclusively, than to have reverses in the start and lose a large portion of your investment for want of a little practical experience. Many persons have met failure by starting on a large scale at first, and without practical experience, where had they started small might to-day be a grand success. This caution applies in all business ventures, and it's the mistake that is made and cause of most failures.

When to Begin.

We recommend the active work to begin in the early spring. Get your ponds ready as soon as possible. Get your stock and place it early, so it becomes familiar with its new quarters before the breeding season sets in.

WATCHING AND WAITING

How Much to Invest.

This, of course, depends largely on the circumstances. If you have abundant means and delight in some hobby and want to make a fancy proposition out of it, why you can make your ponds as expensive and picturesque as you wish. But for those who wish to make a business for the benefit of the income to be derived, should start with a small pond and about six pairs of Frogs. Then gradually increase your breeding pond as your stock and ability to handle it demands. Don't start with Frogs under four years of age. They will be the cheapest in the end.

The Ponds and How to Construct Them.

If you have a running stream of water on your place, the work of building the ponds is much easier than where you have to depend on filling them from pumped water.

It is necessary to have several ponds, one large pond is not satisfactory. The reason for this is explained later. A plant for business should have at least four ponds. The depth of the ponds need not be very great, three feet is ample, and they could be less if you can have a good loam bottom that will hold water. But three feet is very satisfactory, and this graduating off to two feet, and one foot deep at the bank is plenty. A good shape and cheap way to build the ponds is like the cut shown. If the ground you have won't allow of this arrangement why make to best arrangement your ground will permit for convenience, carrying out the plan advisable for Raising Frogs. You must have a breeding pond, a hatching pond, a raising and a stock pond, four ponds in all. The stock pond should be the largest, permitting of plenty of room for growing and opportunity to get food. The size of your ponds depends largely on the amount of land available, its topography and the water supply. Ponds not less than one-half acre in area, with the inlet at one end and the outlet at the other, in a line of its longest axis, generally produce the best results, though smaller ponds can be successfully used.

At least one-fourth of each of the ponds should not be over one foot in depth, and this portion should be planted with pond weed (*Potamogeton*) and water weed (*Elodea*, or *Anacharis*) to facilitate the production and growth of the minute animals which furnish so large a part of the food for the Frogs at all stages of growth. The rest of the pond should have a gradually sloping bottom, and consequent increase depth to the outlet (or drawoff), where the water should be at least five feet deep, so that in drawing off the ponds the stock can be assembled in a small area for sorting, etc. The bottom of the ponds, preferable, soft muck, in which the Frogs can bury themselves in cold weather and avoid against danger of freezing. In the middle of all the ponds, except the spawn hatching pond, water lilies should be planted, the large pods, such as (*Nymphaea alba*). These plants furnish hiding places from fish hawks, also serve as a sun shade and stool for sunning during summer. It is not advisable to place large bowlders in the pond, as they are in the way of seining or netting, and furnish an acceptable resort for crawfish, which are enemies when large. Nursery ponds should be constructed to afford young protection from enemies and to produce the greatest quantity of insect life suited for their sustenance, and this is better accomplished with a number of small ponds than with one large one. A good working size for spawn breeding is from 40 to 50 feet long, by 12 to 15 feet wide, with a depth of from 18 to 36 inches deep to the outlet. Where the topography of the ground will permit it is better to have the nurseries immediately adjoining the spawning pond. With water supply from same source, so that there will be but slight difference between the temperature of the shallowest part of nursery pond and surface of

water of spawning pond. If the location is infested with crawfish or snakes the nurseries should be protected by wire screens. The spawning nursery ponds may be combined by constructing one comparatively long pond, narrow near the middle, so that the general shape would be like an hour-glass. Across the narrow part is to be stretched a screen of one-quarter inch wire cloth, which will confine the spawners to the deeper end of the pond, while the fry or hatching spawn will be kept separate. This form of pond is advantageous where for any reason only a few ponds can be built. Between all ponds that are connected they should be screened where water runs from one pond to the other, that is, at the inlet and outlets.

Each pond should be surrounded by one-half inch wire mesh two feet high. This makes a protection to the ponds from enemies, and also keeps the Frogs confined to the ponds they are intended.

Care of Ponds.

The accumulated decayed matter ought to be occasionally removed. The frequency of this depends on character of the water supply, the amount of silt it brings into the ponds, the character of the soil, and on the thoroughness of the yearly removal of the surplus vegetation. Care should be taken that the ponds do not become offensive with stagnant water and rotten vegetation. This condition is detrimental to large production; while abundant pond vegetation is favorable to a large production of fry it must not become decayed. It is sometimes so luxuriant that it settles down in a blanket-like mass and smothers and pens in many of the young Frogs. Under such conditions it should be removed frequently. This

can be done by lowering the ponds, if they are built so they can be drawn off, which is a very desirable and convenient way if the topography of the land will permit. A strong flat-bottom boat should be made, in which can be taken the surplus matted vegetation and carried off. At each end of the boat a ring should be fastened, through which stakes can be driven to hold the boat at points in the pond to be worked. The vegetation is raked from the water in small lots. Care should be taken not to bring up any of the small Frogs and Tadpoles with the vegetation. It should be removed from the banks of the ponds at once, as it will rot very fast, and its presence is objectionable.

If a boat is not used the vegetation can be drawn near the shore with long-handled rakes and taken out with long-handled pitchforks made especially.

This method is simple and much more economical. Two men can accomplish more than five men by the other method. The advantage in favor of the boat is that you do not need to disturb the whole mass, but pick it out here and there as you think best, and have it more uniform and not destroy the roots so much.

Great Profit in Swamp Lands.

Swamp lands, on a farm, converted into Froggeries, *bring in large profits*. If you have a piece of ground which is swampy, which can be found on most any farm, and you do not convert this into "*Raising Frogs*," you are losing one of the most profitable products of your farm, as *more money* can be made from an *acre of swamp land in a Froggerie than ten acres in wheat*, if properly managed, and with little expense. You first want to excavate a portion of it

where you can have water, 50 x 15 feet, and another part of it 15 x 20 feet, and fence it in, as explained above with a 2-foot one-half mesh wire. In the larger pond place the breeding Frogs, and in the smaller one hatch out the spawn, and when they are developed into Frogs turn them loose on the swamp to grow until they maintain marketable size. If there is a small stream or ditch running through the swamp, which very often is the case, then it is an easy task. And here is where the old saying can be applied, "Makes money for you while you sleep." And good, big money it makes, too. *Don't put off turning your swamp into a money-maker. Do IT NOW.*

The Edible Frog (*Rana Esculenta*.)

THE FEMALE FROG.

Two species of *Rana* are common in America and Europe, viz., *Rana esculenta* and *Rana temporaria*. The latter alone is indigenous to Great Britain, and varieties of it extend throughout temperate Europe and Asia to Japan, and one variety (*pretiosa*) exists in the United States. The edible Frog (*Rana esculenta*), however, has been introduced into England. An Indian species (*Rana breviceps*) and several South African species burrow in the ground.

ECOLOGY AND HABITS. The skin of Frogs is usually smooth and free from warts or horny excrescences. It is invested with a colorless epidermis, which is shed from time to time as the creature

grows ; this splits along the back and thighs, is worked over the head like the taking off of a shirt, and usually eaten by the wearer. The deeper layers contain much pigment, in cells which are more or less under muscular control, enabling Frogs to change their hue to conform to the background.

Frogs are carnivorous, and in the season of activity are likely to be very voracious. The terrestrial and arboreal forms feed mainly on insects, worms, etc. The aquatic kinds also catch insects, but subsist more on aquatic animals—worms, tadpoles, small fishes, and other Frogs. These are seized and slowly swallowed, often, where before the remainder, perhaps still alive, has been got within the mouth.

Extremes of cold or drought in climate must be avoided by Frogs. Moisture of the skin is necessary to their health, and in very dry places or seasons they survive only by going deeply under ground. Thus some tropical species get through the "dry season." The frogs of northern climates endure the winter by clustering about spring-holes and other places where the water is comparatively warm and free of ice ; or else by hibernating in the mud. Terrestrial species bury themselves for the winter in the loam, or burrow into the dry dust of rotting logs and stumps. Their vitality is strong, and their power of regeneration from partial congelation is very great.

Though most species live always in or near water, many spend the greater part of their time away from it, and often in bushes or trees. These, however, go to the water to breed ; and as this function is likely to demand attention early in the spring, it is then that these animals make themselves most conspicuous by the incessantly uttered croaking or rattling calls of the males, which are almost as

varied as the songs of the birds, and more ventriloquistic. These are wholly the cries of the male Frogs, and cease when the mates have been found and have spawned; and to assist in producing them many species have gular air-sacs, which are connected with the vocal organs and furnish the power required for the loud and insistent utterances. The great ear-drums correlated with this vocal power are conspicuous in many species.

The reproductive habits of Frogs are various. All of our common species lay their eggs in water, the eggs being fertilized as they are laid. As the eggs are laid they are inclosed in a gelatinous envelope secreted by the female. This swells and protects the eggs from injury, from being fed upon, from the direct rays of the sun, and in some species it serves to float the eggs at the surface of the water, where oxygen is most abundant; finally, the envelope serves as food for the young frogs. The mouth of the tadpole is small and provided with a horny beak, which takes the place of the teeth which are not yet developed. The tadpole feeds on algæ that cover stones, and on the flesh of dead animals. The long, spirally coiled intestine, which can be seen on the under side of the animal, is an adaptation to its prevailingly herbivorous diet, which requires a prolonged digestion.

The tadpole usually lives in the water for two or three months before it takes to land. In the Bullfrog, however, the transformation (see TOAD) does not take place until the second summer.

In many tropical Frogs the reproductive habits are much modified. One species (*Phyllobates trinitatis*) of Venezuela and Trinidad carries its tadpoles on its back, to which the young attach themselves by means of their suckers. A frog of the Seychelles Islands lives in

the tree-ferns far from water, and carries its young about on its back, to which they are attached by their bellies. In the Kameruns lives a Frog that lays its eggs in a foamy mass on the leaves of a tree. When the larvæ are developed the mass becomes slimy and the tadpoles swim about it, and when a heavy rain falls they are washed into pools of water lying at the bases of the trees. The foam is probably produced as it is in culinary operations, by air being entangled in it by a beating that the Frog gives the jelly with its feet. The inclosed air may well serve in respiration. Compare TOAD.

UTILITIES. Among both civilized and savage men Frogs are a culinary dainty. The edible European Frog is so much prized in France that it is bred for the market in large preserves. In the United States both the Bullfrog and spring Frog are sold in the markets. In France and the United States the hind legs alone are eaten; they are known as "saddles" to American marketmen, and are usually served at table fried. In Germany all the muscular parts are served stewed, often with sauce. Frogs have enabled man to contribute much to his knowledge of physiology. The tail of the tadpole, so frequently fed on by dragon-fly larvæ and other aquatic enemies, has great capacity of regeneration. The study of its re-formation has added to our knowledge of the regeneration of animal tissue. The circulation of the blood, so readily seen by the aid of the microscope in the web of the Frog's foot, is a classic and painless classroom demonstration. Observations on the response of Frog-muscle to stimuli led the great Italian physiologist Galvani to the discovery of dynamical or current electricity, known to us as galvanic or voltaic electricity.

THE MALE FROG. (See Blower.)

Nests and Nest Building.

Whenever the spawning period occurs, ample warning will be given, as the male Frogs will begin croaking for their mate, and will be seen near the shore. Early in the spring is the breeding season, and the Frogs will be seen in pairs, working in company, selecting nests, which are in place where there is a vegetation to attach the spawn, near the surface of the water, as the action of the sun has much to do with the hatching of the spawn.

Impregnation takes place immediately after the spawn is deposited, as with the spawn of fish. The spawn of frogs looks like a gelatin mass in the shape of a bunch of grapes, and will be found attached to some vegetation in the pond. This should be immediately taken out with a large, long handle dipper and deposited in the hatching pond, as the spawn will be destroyed by the frogs jumping into the pond and coming in contact with it, for if the spawn is separated or broken up and sinks to the bottom of the pond, where it cannot get the proper action of the sun, many of the eggs will not hatch, but will be destroyed and eaten. The nursery, or hatching pond, should be constructed in this way: Make some skeleton frames that will set on the bottom of the pond, and come within a few inches of the top of the water. Fasten the frames down, either by weights or stakes driven in the ground. Take some fine netting such as used on windows to keep out flies;

cotton or flax netting preferred to wire. Fasten this netting to the frame. Be sure that the netting is always covered with water when spawn is on it. On this netting, deposit the eggs or spawn taken from the breeding pond. In this way it will be undisturbed, and the sun can do its part toward the hatching of the eggs. This method will be found successful, and you can watch the progress, and the influence of the sun and water on the hatching of the eggs and note the change from day to day, as the Frogs have nothing more to do with their development. Another reason for separating the eggs or spawn from the breeding ponds is, when the spawn is hatched into tadpoles, the Frogs will eat the tadpoles as fast as they wiggle out of the egg. In fact, Frogs are cannibals, and will eat the young until they get large enough to protect themselves.

This is why ponds should be constructed so that Frogs of different sizes can be separated, and all of about a size, kept in ponds by themselves, and raised together. By this arrangement you save many small Frogs.

Enemies of Spawn, Tadpoles and Small Frogs.

The enemies must be guarded against by proper fencing with wire netting and boards. A board should be sunken into the ground at least three inches, and 2 foot 2 inch mesh wire fastened on it. If a 12-inch board is used, this will make a fence about 34 inches high. It could be built higher if desired, but this height makes a good appearance. The enemies are rats, cats, turtles, water centipedes, water beetles, coons, leeches and snakes. Snakes are one of the worst enemies, as they will devour the spawn, of which they are very fond, and also the small Frogs.

Hatching and Progress of the Young Frogs.

Figure 1 represents the embryo as it appears several days after the egg is deposited. Figure 2 gives an outline of its form; the arrows at the side of the head shows the currents of water, which are seen to flow to the branchiæ by the breathing of the young animal. A short period brings it to the form represented in Nos. 3 and 4, the latter representing the head. Figure 5 shows the form of the tadpole when first hatched, which usually takes place about four weeks after the depositing of the egg. Figures 6, 7 and 8 shows various stages of its development; the latter representing the tadpole, called pollywog sometimes; this, for some time, now undergoes little change of form, but increases in size. At length the

hinder legs bud, and are gradually developed, as seen in No. 9; the fore legs are ere long produced in a similar manner.

HATCHINGS. The tail begins now to diminish, as seen in No. 10, and is finally absorbed into the body and disappears. The tadpole (which, for a time, is like a fish and breathing by branchiæ, or gills, and feeding on vegetable food of fishes) is now a frog; breathes the air by true lungs, and betakes itself to the land, where it pursues the avocations of its new and higher life, whereas it before swam by means of a tail it now leaps, and as before, it ate only roots and grass, it now becomes a hunter of insects and worms. This, or a very similar process of reproduction, is common to all species of the family. The Rana Frogs form the highest group of the Batrachian class. They are active creatures, feeding on insects and worms. Those which live upon the ground in the neighborhood of standing water, and pass a considerable portion of their lives in the water, have their toes pointed, and those of the hinder feet united, almost to the tips, by membrane.

Food for Tadpoles.

The spawn or egg takes from four to six weeks to hatch to the shape of a tadpole, and the tadpole takes about four or five months to hatch or change its shape from that of a tadpole to a small frog, which is done as stated in previous paragraph. Frogs are very prolific. One bunch of spawn, from large, well developed frogs, and of five years of age or over, will produce or hatch over one thousand tadpoles. But of course all of these will not be raised to become small Frogs. But a great proportion of them can be if properly cared for and you have the proper facilities.

The beak of the tadpole is adapted to the eating of leaves and other vegetable foods, and on which they could entirely subsist. But it is well to give them access to small insect food, much of which they can get from surface of water. The food changes entirely when the tadpole develops into a Frog. When a frog, the food is entirely insect or live food. It is well, sometimes, when you cannot get facilities to supply naturally plenty of insect food, to take some of the smaller Frogs and tadpoles and place them in the ponds with the growing Frogs, and allow the Frogs to live on them. They must be fed live food. Chopped meats and food of this character will do for tadpoles, but must not be used too freely, as they do not eat it readily, and it only decays and a stifling stench follows. If your ponds are connected with a running stream, much of the insect life for the tadpoles and smaller Frogs is brought into the ponds by the stream, which is very desirable, and saves much extra work. Leave the tadpoles in the nursery pond until they have developed into Frogs. The tadpoles are fish in a sense and will eat most anything, either vegetable or animal matter. In fact, he is a scavenger, and will clean out the ponds. But as soon as he turns into a frog, he requires a different class of food, as he is an amphibious animal. Remember this, as herein, is one of the secrets that have caused so many failures. THE FOOD FOR FROGS IS ANIMAL FOOD.

Food for Frogs.

ACTION OF FROG'S TONGUE IN CATCHING A FLY.

Caution, from this time on, ANIMAL FOOD ONLY. No chopped meat, as Frogs will not eat it, and it will decay and cause a stench. Do not attempt to feed it to frogs. This is the time that care must be taken to see that your Frogs get plenty of the proper kind of animal food. If they are not kept supplied, they will turn to and eat each other, and in this way destroy many a pound of good Frog meat, that is worth "One Dollar a pound" or more. As the tadpoles hatch out prolificly, it's wise to keep a quantity of these and the Small Frogs on hand to feed the larger ones that are being gotten ready for market. By having a number of small ponds, this stock can be kept on hand for this purpose. A plant that will grow on top of the water furnishes many insects, as well as perching places to basque, in the sun, and catch a passing unsuspecting fly. It also affords a shady place to get under on a hot day, with head above water looking for food. *One of the best and easiest ways to furnish live food is to soak a number of potato or feed bags with molasses, and fasten them up around the ponds, just above the ground. This draws the flies, and they will come within reach of the Frogs, and as you will see by the cut at top of this paragraph, the tongue of the Frog is developed to be of service in catching them.* Small tadpoles from other species of frogs, that are not eatable, make good food for them. These can be found in

large quantities along most any stream, or in any pool of water. Wood lice or sow-bugs are good. In planting vegetable matter in the ponds be sure and always plant from seed, as in transplanting you may bring Leeches into your ponds, which are very destructive to the Frogs, and act on the Frogs the same as chicken lice do on chicken, and in time will kill the Frog, and at all times retard its growth. If your Frogs do not thrive well look for Leeches.

IMPORTANT. If it is necessary to feed your Frogs on small fry from fishes or on tadpoles and small Frogs, it might be well to have a supply pond, which can be small, and in feeding it is only necessary to *feed twice a week*, and can be done by putting quantities here and there in the ponds, and let the Frogs catch them as they swim about. Three gillies, tadpole or small Frogs is considered a fair meal for each Frog.

Catching the Frogs.

There are several ways by which to catch the Frogs when ready to market. If they are to be dressed they can be speared; this is done with a handle like is found on an ordinary house broom with a fish spear fastened in the end. One of the best times to spear them is at night with a light as they come on the bank at night to catch bugs. They can also be caught very readily with a hand net, same as used in landing trout. This net can be purchased at most any hardware store, or where they keep fishing tackle. If the Frogs are to be marketed alive they must be caught in this way. In shipping them alive always put wet weeds from the pond in bottom of box if they are to go any distance, and put instructions on the box for agent to keep the weeds wet while in transit. This will insure safe delivery of live frogs.

Some Things About Frogs.

SKELETON OF A FROG.

We here repeat many of the principal items we have previously mentioned, because they are the questions which are most frequently asked. Frogs are very prolific. One bunch of eggs will hatch more than a thousand tadpoles, and if you had the facilities, they could be hatched and reared to marketable size. A good running stream, which can be coured through all your ponds, makes Frog Raising very simple and profitable. A living can be made from "Frog Raising" if you are favorably located, and the main qualities needed is patience and good common sense, to which observation should be added. It takes Frogs, to grow to marketable size, from two to three years.

The eggs take six weeks to hatch out. The tadpole takes from five to six months to turn into a Frog. And the Frog, to grow to marketable size, about two years.

Here lies the secret of the high price of Frog meat. The time it takes before the Frog can be developed to marketable size discourages many from entering into the business. But once equipped and the first three years gone over, from that time on the revenue is continuous and the profit large, and you have a yearly income equalled by no other line of business, as you have always got some Frogs that are coming into marketable size. And the income, from this product, depends entirely on how large a scale you want to enter it. Another source of revenue, which is very profitable, is selling breeding Frogs to beginners, as it is only the "Edible Frog" that is profitable to raise for market, and it takes from four to five years to get the best breeders. They bring good prices. The prices range according to the age. Frogs will breed from two years old, but the best results are obtained from the older mates, as the older and larger the Frog, the heavier and larger the spawn, and the more eggs will hatch and produce stronger and sturdier tadpoles, and from these mates the Frogs grow large more quickly. So in starting, it is always better to pay a little more for your breeding stock and not use so many pairs, and get good old settlers, as the saying is, when you hear them croak, "There is a good old settler." And be sure to start right, not with the common meadow green Frog, which is eatable, but has a strong taste and does not grow to any size. The average size of this Frog at most any age is about three inches, and you will be greatly disappointed after you have spent your time and find that you have not had the

profitable breeder. Get the Frog known as the "Edible Frog of England." This is the (*Rana Esculenta*).

The subject of Frog Raising is a limited one. We have, however, tried to give as briefly as possible all the essential details and secrets to success of Raising Frogs.

"PATIENCE REWARDED."

SPECIAL NOTICE.

Be sure and get the Edible Frog when you start, as they are the best for table and bring the highest prices, and grow to marketable size more rapidly, which is a big item. We always have breeding stock for sale at following prices:

3 year old Frogs, per pair.....	\$4.00
4 year old Frogs, per pair.....	8.00
5 year old Frogs, per pair.....	10.00

Place your orders early, so as to be sure and get your breeders in time to get the advantage of early breeding. Send money by registered letter or money order to

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