

IF WE DECIDE TO BREED OUR DOE, WHAT DO WE DO WITH THE BABIES?

That is the very best question to ask before you breed a rabbit. You need a plan to dispose of the litter unless you plan to be over-run with rabbits. There will be a better market for purebred rabbits than crossbreeds so keep that in mind.



Most people think selling the babies will bring in extra cash but have no idea how to go about it. You can't sell them if no one knows you have them. You will sell one or two to the neighbor kids and will need to advertise the rest in the paper or on local bulletin boards.

But what if they don't sell? It's pretty easy to find homes for one or two, but what if you have a New Zealand or French Lop with 13 babies!? There is a pretty good market for meat rabbits in many areas but are you realistic enough to let your hand raised babies be butchered? Ask the people you got your rabbit from if they would be interested in taking the babies if you have extra. Pet and Feed stores and some breeders may have certain times of the year when they are glad to have a few extra bunnies although they may be committed to just one source for fear of bringing in disease. Just remember that someone who is taking them on speculation isn't going to want to pay much, if anything, for them. Discuss the alternatives with your family before you decide to breed. You don't want to be responsible for more unwanted babies in this world.

HOW OLD CAN THEY BREED?

How old CAN they breed is different than how old SHOULD they breed.

The generally accepted age of sexual maturity is from three to six months of age for small to medium breeds. Bucks mature earlier than does. I have had 2 does bred by their eight week old sons while they were still nursing! Does can become pregnant as early as 12 weeks of age although it is not advisable. Breeding before fully mature is not advisable as it can be fatal for a young doe or she may not take care of the litter.

HOW OLD SHOULD THEY BREED?

Six months of age is typical for most small to medium breeds and eight to twelve months with large breeds and twelve to eighteen months for giant breeds. You want to let the animal put all it's physical energy into it's own growth before taxing it with reproduction. Many breeders will start dwarf breeds as early as four months but they are experienced enough to know from the animal's development if it is practical.

WHAT IS THE BEST TIME OF THE YEAR TO BREED?

Rabbits can breed all year long. The buck's fertility decreases in winter as the daylight hours diminish. Extremely hot weather can also reduce fertility in the buck. Pet owners are probably wise to breed in the spring or early fall when temperatures are mild and the resale market is best. Keep in mind a three month "weather window". The first month your doe will be pregnant and the next two she will be nursing; all of which will be easier in a temperate climate.

WHEN ARE RABBITS "IN HEAT"?

Rabbits are, unlike dogs and other animals, "induced ovulators" which means that they release an egg after being exposed to the male. When a doe is approached by the male the egg is released within eight hours. This is why it is recommended that you breed early in the morning (when the temperature is mild for maximum sperm motility) and again eight to twelve hours later (in the cool of the evening) when they doe is certain to have eggs available to be fertilized. In rabbitries where a doe has a male on each side of her cage may release eggs continuously requiring only one attempt at breeding. That is unlikely with a pet rabbit not normally exposed to a male.

IS THERE ANY PARTICULAR WAY TO BREED
OR DO YOU JUST PUT THEM TOGETHER AND WAIT FOR
BABIES?

Before breeding check the genitals of both rabbits to be sure they have no evidence of disease and that they are both clean.

ALWAYS put the doe in the bucks cage! Does are very protective about their cage and may harm the buck if he enters her territory. It's best to breed early in the morning or late at night when the weather is cool in order to assure maximum sperm motility. Re-breed about 12 hours later. Even if the doe allows the buck to mount her the first time, she may not have actually

released an egg yet so the second attempt should be successful. If she refuses the buck the second time, she may already be bred. NEVER leave the buck in with the doe unattended. An aggressive can seriously injure a buck. Many breeders will leave a known non-aggressive doe in with the buck for 3 days to assure conception but it is not recommended unless you are experienced. Most does won't accept service again after being bred, but there

are about 20 percent who will and can become impregnated again carrying MULTIPLE PREGNANCIES! Female rabbits have two horns of the uterus which allows her to carry one pregnancy on one side and another on the other. If the breedings are more than three days apart, she will likely lose all the babies because they won't develop at the same rate or may be malnourished.

Many people think you have to take the buck out because he will kill the babies, but the reality is that the doe may hurt the buck when he continues to try to mount her after she's bred.

MY DOE DOESN'T WANT TO BE BRED.

WHY IS THAT AND WHAT CAN I DO?

There may be several reasons for an unreceptive doe.

OBESITY The most common reason I find is obesity. If you can't grab a loose handful of skin on her back, she's probably too fat and if she conceives, may likely develop toxemia from the obesity. Fat builds up around the ovaries and chokes off the horn of the uterus. A diet may improve her chances but it's not always easy (as people know) to change metabolism to make it burn fat. Begin by decreasing her normal feed ration by a couple of tablespoon's a day for two or three days. If she has been on free feed, continue until she is down to one ounce per pound of body weight. Then mix the pelleted feed with whole oats (not to exceed one ounce per pound). The oats will help burn calories without adding fat. Get fatso out in the house or yard for some exercise. If that's not possible, try putting a large block of wood or box in her cage between her food and water so she has to jump on or over the obstacle to get to her food. **CONDITION**

The second likelihood is lack of condition caused by illness or improper nutrition. A doe with parasite infestation, either pin worms, coccidiosis, fur mites or ear mites will be either thin, scruffy looking or listless. The same may be true from poor quality feed. She can't be expected to stay sleek and healthy on table scraps and occasional pellets. When in doubt about her condition, check with your vet. He can worm her and treat for mites. The diet is up to you. Have you changed feed? Maybe she doesn't like the new feed or maybe it's just not as good as the old one. SCENT (Preening) GLANDS The third possibility is that the scent glands on either side of the vent opening have become encrusted with dried oil. The buck is generally less interested in a doe without functioning scent glands and the doe may actually have developed a staff infection from the oil irritating the delicate skin. Clean the vent area with peroxide or soap and water. If it's red but not infected, a little Benadryl cream or Hemorrhoid cream will relieve the inflammation. AGE Maybe she's just too old! A two or three year old doe that has never been bred is a real challenge. It's likely she has been fat at some point in her life and the ovaries are choked off with fat accumulations. Unless it's important to keep the blood line going with an old doe, you might want to reconsider the risks.

PLAYING "HARD-TO-GET" Then there are those does who are picky about their choice of mates! Don't laugh! Many does will mate for life and when her chosen mate is gone, she's through producing! There are some who seem to like the fourth or fifth buck tried in a morning or perhaps are just tired of saying no! In any event, don't give up if she doesn't like your first choice. She may just have different taste in men than you!

RETAINED FETUS

If you know the doe has been bred before or aren't sure, ask your vet or local breeder to palpate the doe for any retained fetus. Fetal resorption is nature's way of controlling the rabbit population. Rabbits have the ability to reabsorb the soft tissue of an unborn fetus during periods of inadequate nutrition or stress. The retained fetus is seldom toxic to the doe but may leave her unable to conceive again. I have seen does conceive and pass the mummified fetus along with a live litter. If you have ruled out all of the above, check the color of the vaginal opening. If it is pale pink, all you can expect is that the buck will stimulate her to release an egg. She simply isn't going to co-operate right now. Wait 8 to 12 hours and check the color again. If it is bright pink or dark purple, she should be receptive. Her body is anyway, she just may not know it yet!

CIDER VINEGAR

If she is still unwilling, try putting a tablespoon of cider vinegar in a gallon of drinking water and use it as the sole source of water for a few days. Then try again.

RELOCATE

If there is more than one buck available, try moving her to a cage between the bucks for added stimulation. If you only have two rabbits, try changing their cages. Sometimes the different scent in the other's cage will help put them both in the mood.

GRAPE VINE TENDRILS

The tendrils from grape vines also seem to have a stimulating affect on some does. Wheat germ added to the feed also seems to increase fertility in both bucks and does. There may be a possibility of a silent infection (one you just can't readily see)

that's bothering her so if all else fails, try a course of water soluble Terramycin in her drinking water for a week or consider injectable antibiotics..

OH GREAT, NOW SHE'S WILLING AND HE'S NOT! NOW WHAT?

Bucks are not often unwilling but heat can certainly have a detrimental effect. The relocation technique is very effective especially on older bucks. Sometimes I put two bucks next to each other with the doe next to the buck that is unwilling.

He is soon feeling compelled to protect her from the other potential suitor! Wheat germ and vinegar are also helpful.

With old bucks try to offer him two does at a time to spark his interest. It usually results in a mounting circle with buck on doe, doe on doe and doe on buck. Quite comical but effective.

Checked his genitals to be sure he doesn't have a vent disease. If you see signs of inflammation or pustules on the penis or scrotum, treat with antibiotics and retry when you are sure he is no longer infected. Remember that vent disease is sexually transmitted and can leave some rabbits sterile.

HOW LONG ARE THEY PREGNANT?

Thirty to thirty-two days is the normal gestation period for a rabbit although first time does may hold out until thirty-four.

HOW CAN WE TELL IF SHE'S PREGNANT? SHE DOESN'T LOOK FAT!

Rabbits seldom show obvious signs of pregnancy unless it is a very large litter. The only way to know for sure is by palpation. Please have your vet or knowledgeable breeder check for you at between ten and fourteen days after breeding to avoid fetal injury. Rabbits don't "bag-up" obviously heavy with milk

like a dog or cat and many will not "let-down" milk until after they kindle.

HOW MANY BABIES WILL SHE HAVE?

That depends on the rabbit. Smaller breeds such as Netherland Dwarfs will typically have 1 to 4 although some larger dwarfs may have six or seven. The large and giant breeds such as New Zealand, French Lop, Checkered and Flemish Giants produce litters of 10 to 16.

WHAT DO YOU CALL BABY BUNNIES?

The proper term, however, is kits. Giving birth is called kindling. Kind of like starting a fire...be careful it doesn't get out of hand!

WHERE DO THEY HAVE THEIR BABIES?

The doe will need a sturdy box made of wood or metal called a nest box. You may make one yourself or buy a ready made one from your local pet or feed store. Commercially made boxes have a slope on one end with a little lip across it designed to knock the baby back into the box if he tries to hitch-hike out on a teat. Sounds awful doesn't it? But it saves babies from freezing on the wire.

IS ONE TYPE OF BOX BETTER THAN ANOTHER?

The wooden boxes stay warm in the winter and fairly cool in the summer but are slightly more difficult to clean and dry than the metal type. Lingering odor in the box may cause the doe to refuse to use it. If disinfected properly (preferably with Vanodine) they are fine. I actually prefer the wooden box with no top. Metal boxes are available commercially and are easier to clean and lighter in weight. There are also drop boxes which are built into the floor of cage which prevents babies from being lost to exposure. If they get dragged out of the box they will fall back into the box when they crawl around the cage.

WHAT SHOULD I PUT IN THE BOX FOR BEDDING?

Timothy or other grass hay followed by soft straw, oat hay or alfalfa. Many breeders use pine shavings but they increase the possibility of eye and respiratory infections from the dust. Aspen bedding is a better choice in my opinion. In very cold weather use Aspen on the bottom covered by cardboard or sweatshirt material and then hay. If shavings are the only thing available, try to remove them after a week, just before the babies start to open their eyes. Newspaper and paper towels will also work, but you need lots of them. Cotton batting works well if you don't mind tearing up an old pillow! Don't use gunny sacks or fabric that ravel. Babies can become tangled and loose a limb or strangle in the threads. Mom will line the nest with her own fur which she may begin pulling out as early as three days before kindling. Others wait until the last minute before delivery.

Most does have the instinct to pull hair but others simply refuse. If she doesn't pull it herself you can turn her over and pluck the fur from around her nipples. It should pull free quite readily just before and just after kindling. The fur will not release until the milk lets down so be sure to check for milk if a doe doesn't pull fur.

BABY SAVERS

One thing you will need to do is to make "baby savers" for your cage. They are strips of 1/2 x 1" floor wire about 3 inches wide that are attached to the sides of the cage all around. If a kit is pulled out of the nest or is born on the floor of the cage it will begin to crawl and will fall out of the cage through the 1 x 2" wire on the sides unless there is baby saver wire to keep them in.

WILL THE DOE NEED HELP?

Most rabbits get along fine without assistance. They generally kindle at night or in the early hours when it is cool and quiet.

If your doe begins working on building a nest as soon as you give her the box, the odds are that her instincts are correct and she'll do fine. A nervous doe that jumps in and out of the box a lot is likely to have more problems with delivery and then is likely to trample the babies by her insistence on box hopping.

If your doe appears to be nervous, give her some weak Camomile Tea (an herb tea found in the grocery store sometimes called "sleepy-time tea") in place of her drinking water. This has a remarkably soothing effect and assists in a more relaxed delivery. A sudden onset of labor may cause a doe to have the first baby so quickly that she doesn't get in the box in time. As the next one delivers she will probably figure out the box is a good idea. If you find a baby on the wire don't ever assume it is dead! They are born without hair and are subject to hypothermia very quickly. Should your doe have them all on the wire don't be too hard on her. It may have all happened too fast for her. And please don't assume she won't take care of

them after you put them in her box. When her milk comes in she'll be happy to let the little guys give her some relief.

WILL SHE EAT HER BABIES IF I TOUCH THEM?

Rabbits eat their young for two reasons. They are either malnourished themselves and instinct tells them they are going to be unable to care for them and they will put their own survival first. The other reason for cannibalism is to protect the young from predators. Unless you just found the rabbit and she doesn't know who you are, she isn't likely to perceive you as a predator. Many sources recommend putting vanilla or Vicks on the doe's nose so she can't smell your scent but I honestly have never had a doe kill her babies after I handled them. Stray cats, rodents and dogs around the hutch are likely to provoke a cannibalistic response so the simple solution is to provide your doe with a nice quiet place where she feels safe. It is recommended to take each baby out of the nest every day to be sure none have died. The Mother knows your scent and shouldn't object. Some does are very protective and may lunge at you when you investigate the nest.

It is a good idea to pet Mom first, then remove the box to inspect the kits.

THEY DON'T HAVE FUR AND THEIR EYES AREN'T OPEN! WHAT'S WRONG?

Domestic rabbits are born deaf, blind and furless. Only jack rabbits are born fully furred with eyes wide open ready to run. The babies should begin to have noticeable fur by three days of age. The eyes will open at ten to twelve days. If you notice most have their eyes open by twelve days, check the ones with their eyes closed very carefully to be sure they aren't matted shut from a bacterial infection. Wipe the eyes with a warm wash cloth to see if they will open. If they produce pus or other matter, treat them with an ophthalmic antibiotic or Nitrofurazone Powder twice a day until clear. Be sure to clean them thoroughly before each application of ointment, drops or powder.

HOW DO BABY BUNNIES EAT?

Rabbits are mammals and nurse their young. Unlike dogs and cats, rabbits do not lie down to let their babies nurse. They stand over them with the babies lying on their backs to nurse. It looks awkward but seems to be pretty efficient.

WHY ISN'T SHE TAKING CARE OF THEM?

Rabbits only nurse new babies ONCE A DAY!

Everyone seems to think rabbits are like cats and need to nurse every two hours. Quite the contrary! Bunnies have very delicate and slow developing digestive systems and only require feeding once a day for the first couple of weeks. Once their eyes open and they become more active, Mom will increase the chow time. More baby bunnies have been killed by well meaning foster mothers giving supplemental feedings of kitten milk replacer! Even vets recommend it not realizing it is far too rich for a delicate bunny belly. See bottle feeding section for more details.

WHY ARE THE MOTHER'S TEATS SWOLLEN AND HOT?

She has probably developed a condition called mastitis which is an infection of the mammary glands. It can begin from a wound caused by a sharp edge on the nest box or from unclean housing that allows the bacteria entrance through the teat. Mastitis is seldom fatal to the doe but can be to the young. Remove the babies at once and get the doe started on a course of antibiotics.

It is a painful condition and nursing will engorge the glands even more while passing the infection on to the young. **DO NOT FOSTER THE BABIES TO ANOTHER MOTHER!** They can infect the foster mother. Refer to section on bottle feeding for more specifics.

MY NEW ZEALAND JUST HAD 12 BABIES!

CAN SHE NURSE THEM ALL?

New Zealands are remarkable mothers and can raise unbelievable numbers of young

successfully. Other large breeds can do equally well but I have found it helpful to split the litter into two separate boxes (cage space permitting) with the larger ones in one box and the smaller ones in the other. That way no one gets crowded out. The does seem quite content to go from box to box and feed them all.

MY RABBIT DIED HAVING HER BABIES.

CAN THEY SURVIVE WITHOUT HER?

The odds are stacked against them but yes, they can with lots of help from you or a cooperative foster mother. Clearly, Mother's milk is their best chance and if you have another doe with a litter the same age or size you may be able to smuggle the little guys in with her babies unnoticed. The best time for adding babies is in mid-morning if you can. Mom isn't likely to check on them for several hours and by then they'll smell like her own. Most pet owners don't have the luxury of a second mother so it's up to you.

CAN WE BOTTLE FEED THEM?

Without a foster mother, it's the only other alternative. DON'T USE KITTEN MILK REPLACER OR COWS MILK!!!! Goats milk will work. Pet nursers, sold at most pet and

feed stores have too big a nipple for a new born bunny. Use an eye dropper or syringe (without a needle of course). Hold the bunny in one hand with head up and tail down. If they are flat on their back the milk will go up the nose and they can aspirate it into the lungs. The suckling instinct may be non-existent and you will have to slowly put the syringe or dropper tip into the side of the mouth and deposit only a drop or two at a time. If you're lucky, the baby will begin to lick the dropper. That is certainly best so he doesn't get too much. Don't overfeed! Their first few feedings will be frustrating but hang in there, it gets easier.

BOTTOM DETAIL MY RABBIT HAD SIX BABIES A COUPLE OF DAYS AGO AND NOW THERE ARE ONLY FIVE. DID SHE EAT ONE?

It's not likely. Check the box thoroughly. Take all the babies and nest material out and look carefully. If the baby was small it may have been pushed to the bottom. A dead baby will be full of maggots in no time if it isn't taken out right away. The other possibility is that the baby hung on to a teat while Mom was jumping out of the box. They begin to crawl as soon as they hit the wire floor and can easily crawl through a one inch space in the wire. Check the ground twenty feet around the cage. You'd be surprised how far they'll crawl looking for warmth. Because they can crawl through such a small space it is advisable to have $\frac{1}{2}$ x 1" wire (called baby savers) added to the bottom of the cage sides about 3 inches high to keep the babies inside.

WHY WOULD A MOTHER START BITING HER BABIES WHEN THEY WERE TWO OR

THREE WEEKS OLD?

Maybe they made her mad! But more likely, her nipples are sore. Check to see if they are chapped or bleeding. Cold weather can cause the nipples to dry out and crack making them very painful. Examine them carefully and if they are chapped, a little mineral oil works quickly to relieve the discomfort.

If, however, you find the nipples swollen and hard you will need to begin mastitis treatment as outlined above.

WHEN CAN THE BABIES EAT SOLID FOOD?

They will begin to nibble at solid food just as soon as they can find it! Usually at about two weeks of age they will begin to nibble at the tender leaves of alfalfa if available. At about three to four weeks they will be jumping into Mom's feed dish and will start on the pellets. Some breeders put a small dish down low for the babies but I generally prefer to have them wait until they are old enough to find it on their own so their stomachs can develop more slowly. Dry Quaker oats mixed in with the feed is a good bland diet for new tummies. Watch the babies and check them daily as they begin to discover solid food. It's easy to pig out and get a case of diarrhea or just a sticky bottom if you're not careful. Sticky fur can matt over the vent or anal openings preventing normal urination and bowel movements. It is especially important with Holland and French Lops who are more prone to stomach upsets as babies.

WHEN CAN THEY EAT HAY?

Alfalfa leaves are a favorite of young bunnies but be cautious of too much protein when combined with the pellets. Timothy or other grass hay is a safe starter because it is low in protein and high in fiber. Oat hay is okay too but pick off the whole oats as they may be too harsh on a babies digestive system.

HOW LONG DO THEY STAY WITH THE MOTHER?

They can stay as long as she'll let them but the longer they keep nursing the harder it is on the mother. Small litters, if well nourished, can be weaned as early as five weeks, but six to eight weeks is generally preferred. Kits lose the Mother's immunity to disease at four weeks of age so are quite vulnerable to infection from 4 to 6 weeks so the longer they stay with Mom, the better.

Weaning babies one or two at a time seems to be easier on Mom so her milk can dry up gradually. Should you take the whole litter at once, a little camphor oil or Vicks rubbed on each nipple will help dry the milk more quickly.

WHEN CAN THE MOTHER BE RE-BRED?

She could be re-bred the day after she kindles but her milk will dry up in two weeks and leave her present litter on their own for groceries. Commercial breeders wait two to three

weeks and then re-breed. It can be done but it sure wears out a doe in a hurry. Nursing is what takes it toll on a rabbit more than the pregnancy or kindling and so some breeders with valuable show

rabbits will take the litter away at once and let an old "nurse-doe" raise them and re-breed the show doe at once.

MY RABBIT IS PULLING HAIR AND MAKING A NEST BUT I KNOW SHE ISN'T BRED!
WHAT'S GOING ON?

Assuming you didn't have some little neighbor kid "helping" by letting your bunny out one day. She's basically telling you that her hormones have kicked in and she's ready to be a good mommy! Humor her, give her a nest box and some hay. She'll get over it! Unless, of course, she does "mysteriously" have babies! A Netherland Dwarf of started nest building at the age of twelve weeks while she was still sharing a cage with her mother and brother! Her brother had apparently been practicing to be a grown up and she thought he was!

Thank goodness he wasn't!

WHAT DO WE DO WITH THE BABIES?

Finding homes for a litter may be more difficult than you think so be sure to plan ahead. Most people have friends or neighbors who say they want one but when the babies are ready to go they often change their mind. Getting a cash deposit for the baby will increase the probability that they won't change their mind. If you have show bunnies there is generally a good market for them at rabbit shows. There is usually a much better market for pure bred bunnies than cross breeds. You can advertise in the newspaper but it can be expensive and may not yield good results. Local feed and pet stores may be an option but they are seldom willing to pay much if anything for rabbits and they seem to want them too young. You can place ads on local bulletin boards and now with the advent of the Internet, you can advertise them on line. If you live in town be sure you are

permitted to raise rabbits so you don't have problems with city or county officials. Good luck and have fun!