Eat Rabbit; a Global Source of Protein

Lack of Subsidized USDA Inspections for the Sale of Rabbit

Tag Words: rabbits; rabbit meat; white meat; world hunger; sustainable living

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Summary: Many parts of the world have eaten rabbit meat for centuries yet Americans are reluctant and have yet to hop on the rabbit meat bandwagon. Their adept reproductive capabilities, ease and relatively cheap cost of care make them the perfect instrument to end world hunger. Trapping and breeding rabbits in residential areas can control the pest problem while providing an alternative source of meat while capturing and breeding rabbits can provide sustainable food and jobs for communities in third world countries. However, rabbit meat is difficult to find in US grocery stores because the USDA’s Food Safety and Inspection Service (FSIS) is not subsidized to inspect game animals, including rabbit, requiring game meat producers to fund the inspections resulting in higher prices for the consumer.

Video Link: http://youtu.be/k2lfN1gYgrk

Rabbits have successfully infiltrated nearly every part of the world. Even as prey animals having numerous predators, rabbits have adapted to and continually thrive in virtually every environment. For most, they are considered an invasive species and a nuisance. The introduction of rabbits to the Australian continent in 1859 resulted in millions of dollars in damages to crops. This rapid explosion in rabbit population led to the popularization of the infamous expression to "multiply like rabbits".

Breaking down the image
A major factor in keeping Americans away from rabbit meat is due to their image as cute, fuzzy, innocent creatures. Since the 19th century, the practice of keeping pet rabbits grew as did the idea of rabbits as another cherished animal family member like a dog or cat which contradicts the presentation of rabbit as food. Rabbits appear in American popular culture in many films, folktales, and literature. Notable characters include Bugs Bunny, the White Rabbit, Peter Rabbit, and the Easter Rabbit. On the other spectrum, for many in other parts of the world, rabbits are nothing more than pests such as rats and would not want to eat a "dirty" animal reasoning that only as a last resort would anyone consider eating a rabbit (10). In suburban communities, rabbits can be a nuisance that can destroy backyard gardens. Even the United States in 1943, encouraged families to raise and eat rabbit due to the food shortages during World War II. Since then it has been slowly gaining repertoire on plates served in high end restaurants (15). If Americans had tasted rabbit before, one can only wonder why rabbit is not as prevalent in the United States anymore. Industrialization was a big factor to Americans eating less varied meats. This was the age of the rise of beef, pork, and chicken industries in supermarkets; the demand was for cheap meat. After Upton Sinclair’s famous work The Jungle that exposed the meat industry’s procedures, the USDA was formed to inspect the quality of meat sold. In 1906, the
Pure Food and Drug Act and the Federal Meat Inspection Act were passed which allotted federal tax dollars to the USDA for inspections of cows, pigs, sheep, and goats. Game animals were unintentionally left out which meant that ranchers or meat farmers, in order to have their meat inspected, must pay an hourly rate for voluntary inspection from the USDA. This is because consumers want their meat products inspected. Therefore, the farmers are forced to raise the price of their meat to afford the inspection. Americans, used to cheap meat would be less inclined to buy the expensive meats (23). According to the USDA, rabbits graded for consumers are U.S. Grade A, U.S. Grade B, and U.S. Grade C (24).

**On your plate**

Most European countries including the England, France, Germany, and Italy have been eating rabbit on a regular basis for centuries, as do many other countries around the world (12). Touted as an alternative white meat option, it is similar to chicken with a lot of flavor (13). According to chef Chris Kronner of San Francisco's Bar Tartine, “the [rabbit] meat is mild and generally sweet without any traces of gaminess…[with] a complexity.” (2) It is low in calories, low in fat, and high in protein in addition to a combination of essential amino acids, B-Complex vitamins, and minerals. Below is the nutrient fact and analysis of rabbit meat (10).

According to a study from the Journal of Animal Production Advances on the Nutrient Content of Rabbit Meat as Compared to Chicken, Beef and Pork Meat, “Rabbit meat was richer in calcium, phosphorus than other types of meat and lower in fat and cholesterol. Beef had the highest cholesterol content, almost double than rabbit meat, while pork was rich in fat (17).”

**Protein**

Protein is an important building block of nearly everything in the body (10). According to the statistical breakdown of the nutritional value provided by the USDA, pork is 11.9% protein, lamb is 15.7%, beef is 16.3%, veal is 18%, chicken is 20%, turkey is 20.1%, and lastly rabbit contains 20.8% protein. Rabbit meat has the highest percentage of protein per pound than chicken, veal, turkey, lamb, beef, and pork (14).

**Fat and Calories**

In a nation trying to overcome obesity, the amount of fat and calories are important in maintaining good health (10). As for fat, rabbit contains the lowest amount of fat per pound at 10.2%, chicken at 11%, turkey at 20.2%, veal at 14%, lamb at 27.7%, beef at 28%, and pork having 45% fat
per pound. Also in calories, rabbit has the least amount at 795 calories per pound, chicken at 810, veal at 910, turkey at 1,190, lamb at 1,420 beef at 1,440, and finally pork with 2,050 calories per pound (14).

**Importance of a Balanced Diet**
For Americans concerned about their health, rabbit meat seems to trump other meat competitors. However, like all meats, it should be part of a balanced diet. A diet of solely meat cannot provide the body with everything that it needs to run properly (10). Rabbit meat is very low in fat content; the diet must be supplemented with good, healthy unsaturated fats such as certain oils and nuts. Although too much saturated fat is bad and unhealthy, unsaturated fats are actually needed by the body to help absorb minerals. Carbohydrates from low-glycemic foods are also needed to provide longer lasting energy. Lastly, eating vegetables will allow a complete diet providing fiber and other vitamins and nutrients not found elsewhere (11).

**Rabbit Season**
Rabbit hunting, also known as rabbiting, is the sport of hunting rabbits. The use of ferrets or dogs to track and catch rabbits may be used. Hunters may track the rabbit and use short range arms such as archers or small caliber guns. Otherwise, traps or nets are often used to ensnare the rabbit. Hunting seasons, city ordinances, and permits vary by state (18). In the state of New Jersey, the hunting season for rabbit usually extends from the end of September through February, with permit. Shooting or trapping rabbits in New Jersey is legal in the state during the specified rabbit season (20). However, guns cannot be fired safely near buildings or roads. Once caught, rabbits are simple to slaughter and easy to dress (2). Bullets must be extracted carefully to avoid consumption. The introduction of wild rabbits to the continent of Australia in the 18th century proved to be a costly infestation. Since then, diseases such as myxomatosis and the calicivirus were intentionally introduced to control the rampant population. However, these methods are proving to be too efficient and killing large numbers of farmed rabbits (19).

**Diseases**
Rabbits have very few naturally occurring diseases and are relatively healthy. However, awareness of certain symptoms can be a key factor in prevention or worsening sickness. There are several intestinal diseases that can cause diarrhea in rabbits and should seek medical help to figure out the cause. Loss of energy and appetite are also accompanying symptoms. They can also contract bacterial infections in their eyes or ears which can be easily treated with antibiotics. When antibiotics are given to prevent or treat diseases, a withdrawal period is required so the residues exit the system before it reaches the consumer (24). Bacterial infection of the lungs may show signs of coughing, runny nose, and sneezing and are potentially infectious to other rabbits and should be quarantined (7). Apart from common diseases that rabbits can have, there are only a handful of diseases that can be passed onto humans which are discussed individually below. Many of these diseases are food borne illnesses and can be prevented by practicing safe food handling procedures such as washing hands and all surfaces, thoroughly cooking the meat, and proper storage of food. Gloves should also be worn when handling rabbits (3). Rabbits can also
carry mites so thoroughly checking its fur for any signs of hair loss or bumps can help determine its health (6).

The USDA has provided an outline for the safe handling of rabbit. Below is the wording the USDA has on their website (24):

### Safe Storage Times
Take rabbit home immediately from the grocer and refrigerate at 40 °F or below. Use it within 2 days or freeze at 0 °F. If kept frozen continuously, it will be safe indefinitely; however, quality will diminish over time. It is safe to freeze rabbit in its original packaging. For prolonged storage, overwrap as you would any food for long-term storage. For best quality, use frozen whole rabbit within a year; pieces within 9 months.

### Safe Thawing
There are three ways to safely defrost rabbit: in the refrigerator, in cold water, or in the microwave oven. Never defrost at room temperature.

- **Refrigerator:** It's best to plan for slow, safe thawing in the refrigerator. Bone-in parts or whole rabbits may take a day or longer to thaw. Once thawed, rabbit may be stored in the refrigerator for 2 days before cooking. During this time, if you decide not to use the rabbit, you can safely refreeze it without cooking it.
- **Cold Water:** To defrost rabbit in cold water, do not remove the packaging. Be sure the package is airtight or put it into a leak-proof bag. Submerge the rabbit in cold water, changing the water every 30 minutes so that it continues to thaw. Small packages may defrost in an hour or less; larger packages may take 2 to 3 hours. Plan to cook the rabbit immediately after thawing by the cold water method.
- **Microwave oven:** When defrosting rabbit in the microwave oven, plan to cook it immediately after thawing because some of the areas of the food may become warm and begin to cook.

### Safe Cooking

- When roasting rabbit parts, set the oven temperature no lower than 325 °F. A 2-pound, cut-up rabbit should take approximately 1 hour to cook.
- A whole, 2- to 2 1/2-pound rabbit should take about 1 to 1 1/2 hours to roast. Stuffing it will add approximately 1/2 hour to the cooking time.
- Braising rabbit (cooking it in a small amount of liquid in a covered pan on the range or in the oven) also takes about 1 hour. Rabbit can be broiled about 15 minutes on each side.
- For safety, USDA recommends cooking rabbit to an internal temperature of at least 160 °F. The use of a food thermometer is recommended to make sure that your rabbit is safe to eat.
- It is safe to cook frozen rabbit in the oven or on the range or grill without defrosting it first, although the cooking time may be about 50% longer.
- Do not cook frozen rabbit in a slow cooker; thaw first. Cut whole rabbits into smaller pieces so heat can penetrate the meat more quickly.
Cooking Rabbit-recipes
Rabbit can be cooked in several different ways-fried, braised, smoked, stewed, roasted, etc. It seems that wine and bay leaves are commonly used in many rabbit dishes to bring out the flavor of the rabbit. Potatoes and vegetables make great accompaniments to the dish. Cooking tips include braising longer at a low temperature for juicy and tender rabbit, and leaving the bone in the help lock in moisture. Fryers are rabbits less than 12 weeks old and known to have tender meat (25). Marinating and seasoning the outside and inside of the meat can be done as is basting. A few recipes using rabbit found on food.com are shown in the Appendix.

There are many great resources to finding recipes on how to cook with rabbit. Food websites have tons of rabbit recipes and there are plenty of books as well. Some recipe books include: “Rabbit Greats: Delicious Rabbit Recipes, The Top 49 Rabbit Recipes” by Jo Franks, “The Rabbit Cook” by J.C. Jeremy Hobson, and “The Everything Wild Game Cookbook: From Fowl And Fish to Rabbit and Venison” by Karen Eagle.

Safe Handling of Leftovers

- Refrigerate leftovers within 2 hours after cooking. Use within 3 to 4 days or freeze.
- Use frozen, cooked rabbit within 4 to 6 months for best quality.
- Reheat leftovers to 165 °F.

Obtained from the Food Safety and Inspection Service under the U.S. Department of Agriculture (24).

Tularemia
Also known as rabbit fever is a bacterial disease that can be transmitted to people from infected rabbits usually through a bite, or eating and drinking contaminated food and water. Biting flies and ticks are known vectors of the disease. Symptoms in rabbits include strange behavior, loss of appetite, diarrhea, and coughing (3), (8).

Dermatophytosis
Also known as ringworm, is a skin disease caused by a fungus. It is transmitted both via direct contact with an infected animal or indirect contact with spores in the environment. Symptoms in rabbits include patches of hair loss, and itchy lesions on extremities. Antifungal products can be used to treat the infection. Ringworm can be transmitted to people and must take care to disinfect properly and wear gloves when handling infected animals (3), (4).

Listeriosis
Bacterial infection caused by contaminated or poor quality feed. Symptoms in rabbits include weight loss, anorexia, depression, and loss of appetite, fever, lack of coordination, salivation, facial paralysis, and circling. (3) Listeriosis can be transmitted to people and prevention is simply by practicing good hygiene and always wearing gloves when handling infected animals (5).

Encephalitozoonosis
Infection caused by parasitic spores in contaminated foods. Symptoms include hypersensitivity to light, head tilt, loss of balance, paralysis, lethargy, depression, anorexia. Supportive care may be used to treat mild cases. Encephalitozoonosis can be transmitted to people and prevention is simply practicing good hygiene and always wearing gloves when handling infected animals (3).

**Rabbit Starvation**
Also known medically as acute protein excess, is a form of malnutrition caused by a restricted diet of lean meat. Symptoms include diarrhea, headache, fatigue, discomfort and insatiable hunger even after eating large amounts of meat (3). This diet must be supplemented with fat and carbohydrates (9).

**Wild Rabbit versus Meat Rabbit**
Wild rabbit tends to taste a little gamier than meat rabbits that are bred for consumption (16). The wild rabbit usually found in North America is typically the cottontail rabbit. They tend to be smaller in size, therefore less meat. Meat rabbits on the other hand have been bred for size and taste. Meat rabbit breeds include New Zealand Whites, Californian Rabbits, American Chinchilla, Silver Foxes, Champagne D Argent, Cinnamon Rabbits, Satins rabbits, Rex Rabbits, Palomino rabbits, and Flemish Giants. Acquiring two does and one buck of a meat rabbit variety can produce 180 pounds of meat per year (22). Capturing wild rabbits can forego the startup cost of buying the rabbits. Depending on the lifestyle, there are several options. Some people may choose to acquire and raise meat rabbits, some may just trap wild rabbits, and others may trap wild rabbits to breed them.

**Feeding the Family**
Now, there are many benefits and reasons for raising rabbits. As opposed to raising chicken, pigs, or cows, rabbits are virtually quiet and take up very little space. As previously mentioned, they are considered a lean white meat with many health benefits. Rabbits are very hardy animals and can adapt to their environment. Rabbits are induced ovulators which mean they can reproduce rapidly. Their gestation time is 28-31 days and can birth another litter before the first is weaned. They can be fed alfalfa, clover hay, timothy hay, rabbit pellets, and whole grain. They are inexpensive to feed and very economical. According to Dr. Steven Lukefahr, “ten females and one male can produce around 200 offspring per year,” Lukefahr says. “that’s enough to provide high protein meat for the family and have some left over to sell at the local market (16).” For families looking for a sustainable source of food, raising rabbits alongside a garden can be ideal.

**Feeding the World**
Outside of the United States, many countries are used to eating what Americans consider non-typical meats. For instance, goat meat is very popular while some people also eat venison, duck, alligator, bison, and even guinea pig (23). After the disastrous earthquake that hit Haiti in 2010, the U.S. funded Farmer to Farmer program introduced rabbits to the area so that displaced families would have a means of food and income. The program has significantly increased family income and has become an important part of the recovering Haitian economy (16) .According to a 2013 summary from the Food and Agriculture Organization of the United Nations, over 46 million people worldwide are living in poverty (1).
With the exponential numbers of wild rabbits across the world, it seems this inexpensive and largely available food source has mostly remained untapped. It only makes sense that rabbit farming, along with a source of fat and carbohydrates can be beneficial in the fight against world hunger. Heifer International is a nonprofit organization that provides agricultural animals to feed families in 3rd world villages. Heifer International provides animals including rabbits for families that can be sold for income, providing money for medicine and to boost crop production by producing fertilizer (30).

Part 2 - Jumping Over Hoops For Rabbit
One of the reasons why rabbit meat is difficult to find in stores is because the lack of USDA backing. Under the Federal Meat Inspection Act (FMIA), the U.S. Department of Agriculture’s Food Safety and Inspection Service (FSIS) is the agency responsible for inspecting swine, cattle, sheep, and goats. Under the Poultry Products Inspection Act (PPIA), the FSIS also inspects chicken, turkey, ducks, geese, guineas, ratites, and squab. There are no regulations encompassing game animals including buffalo, antelope, reindeer, elk, deer, migratory water fowl, game birds, including rabbit. As such, any person(s) aiming to sell meats of that type are allowed to voluntarily seek inspection from the FDA. However, some states require USDA inspection for the sale of rabbit so it is not exactly voluntary. Shipping rabbit meat between states is also under FDA jurisdiction. Those wishing for “voluntary” inspections may do so in accordance with Agricultural Marketing Act. The approval stamp from the USDA ensures the rabbit is wholesome and free from disease. Without it, consumers are wary of and less inclined to purchase uninspected meat. The problem is that since the USDA passed the inspection for standard livestock and did not include game animals. Federal tax dollars fund the USDA to carry out these inspections for the public. When a small farmer or hunter inquires about sale of game, they are told they need to pay the USDA an hourly rate for voluntary inspection. The small farmer or hunter consequently has to charge the consumer the expense of inspection. If chicken or other meat is cheaper than rabbit, people are more likely to go for the cheaper option (23). Some challenges they may face include considering the availability of slaughtering facilities, type of packaging required, transportation cost, and potential buyers. Restaurants, wholesalers, custom meat stores, and individual buyers are purchasers of rabbit meat. Local zoning regulations must be checked to make sure that the intended business activities are permitted. Buildings and equipment should be insured with liability coverage. AGR-Lite is a government subsidized program that insures livestock and whole farm protection. Budgeting is an important aspect of the business to ensure that costs and returns will not end in bankruptcy. Initial resources require land, labor, and capital (26). Additionally, there are pressures from animal rights activists that protest the slaughtering of rabbit for meat. They argue that the meat rabbits are treated inhumanely. Recently, Whole Foods, a supermarket chain announced that they would be offering rabbit meat which received much attention from supporters and protestors alike. Commercial breeders are usually licensed through the Animal Welfare Act and hobby breeding group extends to meat rabbits, laboratory research rabbits, and pets.

Mandatory Rabbit Inspection Bill
Throughout the years there have been several attempts to pass a mandatory rabbit meat inspection bill. For example, in 1973, the bill was passed in the Senate but the House failed to act which caused the bill 5.43 to die. The bill called for an extension of the Poultry Products Inspection Act of 1957 to cover rabbits (28). The rabbit industry tried again in 1975 and passed
the House again. In September of 1976, the Senate had passed the bill and it was thought that the Mandatory Rabbit Inspection legislation, HR 10073 would allow for the protection of “U.S. consumers, build a stronger U.S. rabbit industry, regulate imported rabbit meat, and remove discrimination that has existed against rabbit meat for many years” (27). President Ford later vetoed this bill. A similar bill was vetoed again by President Carter of HR 2521 requiring federal inspection of domestic rabbit meat, which was a second blow for a rabbit meat bill. The reasons provided for the veto were that requiring U.S. taxpayers to pay for mandatory inspection of a specialty food that was consumed by relatively few people could not be justified. Another reason was that the bill also spot checked imported rabbits from China and thought that inspections would strain relations with the exporter (28). A lot has changed since 1976 and demand for rabbit meat has steadily been on the rise. Cama Davis, founder of Oregon’s Portland Meat Collective had realized this and began to teach classes since 2011 on rabbit slaughter and butchery (13). According to the U.S. Ag Census, data show that rabbit production is up. In 2007 27,000 farms in the U.S. raise rabbits and selling nearly 980,000 rabbits. This data also does not show the number of backyard breeders who raise rabbits for personal consumption (29). Data confirms that it is time to try again for the mandatory inspection of rabbits. As the community outreach, I have started a petition asking the U.S. House and Senate to sign into law the mandatory inspection of rabbit and rabbit products.


This petition is important because small farms and businesses are becoming bankrupt due to having to have their meat inspected out of pocket. This drives up the cost of rabbit meat which makes it a lesser competitor in the market against more popular, cheaper meats. There are plenty of petitions against eating rabbit (even on the change.org site). Anti-rabbit supporters believe that rabbits are companion animals/pets and should not be considered as a source of food. For instance, Americans would not eat their pet dog or cat. However, there are animals that people use for a dual purpose. For example, many children growing up on farms can see the farm animals as pets - pigs, chicken, cows - that are all commonly consumed meat products today. Yes, they can provide companionship but they also provide sustenance. Especially in third world countries where people are worried about their next meal it is easy as Americans to stand on a pedestal and preach to them to not eat pets. These arguments arise in all meat industries. If people have an ethical reason for not wanting to eat meat or a certain type of meat this person should abstain themselves and allow other people the liberty of choosing from available meats and to make their own informed decisions. I am defending the freedom to be able to choose what kinds of food we eat. I believe that people should have the option of consuming a healthier meat. It is the laws in which these animals are handled and treated that should be altered, not the kinds of food we eat. I hope the people can now make an informed decision, will pass this information along and perhaps influence their legislators to change the archaic laws that are currently in place.

Thank you.

Jenny Kim
References

(1) http://www.fao.org/docrep/018/i3458e/i3458e.pdf
(2) http://magazine.good.is/articles/backyard-bunnies-are-the-new-urban-chickens
(3) http://www.merckmanuals.com/pethealth/exotic_pets/rabbits/disorders_and_diseases_of_rabbits.html#v3229569
(4) http://www.peteducation.com/article.cfm?c=18+1800&aid=2494
(5) http://www.cfsph.iastate.edu/FastFacts/pdfs/listeriosis_F.PDF
(6) http://animals.pawnation.com/bunny-fur-mites-contagious-humans-2645.html
(7) http://www.merckmanuals.com/vet/exotic_and_laboratory_animals/rabbits/parasitic_diseases_of_rabbits.html
(8) http://www.cfsph.iastate.edu/FastFacts/pdfs/tularemia_F.pdf
(9) http://www.ketogenic-diet-resource.com/rabbit-starvation.html
(10) http://www.azrabbits.com/useful-information/nutrition.html
(12) http://www.foodispower.org/rabbits-raised-for-meat/
(14) http://www.livestrong.com/article/342037-nutrition-in-rabbit-meat/
(15) http://www.moma.org/explore/inside_out/2010/12/01/rabbit-rabbit
(16) http://world.time.com/2012/12/14/how-rabbits-can-save-the-world-it-aint-pretty/
(17) http://www.scopemed.org/?mno=35705
(18) http://www.wildlifedamagecontrol.net/whytrapping.php
(19) http://www.abc.net.au/worldtoday/content/2014/s3989622.htm
(21) http://theselfsufficientliving.com/best-meat-rabbit-breeds/
(22) http://www.motherearthnews.com/homesteading-and-livestock/breeding-rabbits-zmaz70mazglo.aspx#axzz395wyAVj8
(26) http://extension.psu.edu/business/ag-alternatives/livestock/additional-livestock-options/rabbit-production
(27) http://louisdl.louislibraries.org/cdm/ref/collection/p120701coll25/id/73082
(29) http://www.agmrc.org/commodities_products/livestock/rabbits-profile/
(30) http://www.heifer.org/gift-catalog/animals-nutrition/gift-of-rabbits-donation.html

Letter to the Editor

Please consider publishing my letter to the editor – see submission below and attached

To Joe Mandese, the Editor of MediaPost,
I am writing to you about a recent article, "What's Up, Doc? Whole Foods Puts Rabbit Back on Table" by Sarah Mahoney published on July 3, 2014. I appreciate MediaPost's efforts in raising awareness to the growing trend of consuming rabbit meat. I agree with Whole Food's decision to make rabbit more available to consumers. Rabbit, like the article says, is a very healthy white meat alternative with many nutritional benefits.

Though there are many protestors of this issue, I believe in having an open mind in the 21st century and with Whole Food's promise of high animal welfare standards, there is no wrong in serving rabbit meat. I believe that the acceptance of consuming rabbit is a pivotal move towards feeding thousands of homeless in America and around the world. Thank you for publishing an article on this matter and hope you continue to publish more information on the growing popularity of rabbit meat.

Thank you,
Jenny Kim
Appendix

Crockpot/ Oven Beer-Braised Rabbit

Ingredients:

- 2 - 2 1/2 lbs dressed rabbit or 2 - 2 1/2 lbs broiler-fryer chickens, cut up
- 2 tablespoons olive oil
- 3 medium potatoes, peeled and halved
- 3 - 4 carrots, peeled and bias-cut in 1 inch pieces
- 1 onion, thinly sliced
- 1 cup beer
- 1/4 cup chili sauce
- 1 tablespoon brown sugar
- 1 garlic clove, minced
- 1/3 cup cold water
- 3 tablespoons all-purpose flour
- 1/2 teaspoon salt
- paprika (to garnish) (optional)
- parsley (to garnish) (optional)

Servings: 4

Units: US | Metric

Directions:

1. In a crock-pot, place potatoes, carrots and onion.
2. Season meat with salt and pepper, brown in oil on all sides and place in crock pot on top of vegetables.
3. Combine beer, chili sauce, brown sugar, and garlic; pour over meat.
4. Cover and cook on high heat setting for 3 1/2- 4 hours.
5. Remove meat and drain vegetables.
6. Measure cooking liquid and add beer, water, or broth to make 1 1/2 cups.
7. Put reserved cooking liquid in a saucepan, and return meat and vegetables to the crock pot.
8. Mix 1/3 cup water with 3 lbs flour in a gravy shaker or jar and shake until smooth.
9. Stir into reserved liquid; cook, stirring constantly until thickened.
10. Serve sauce over meat and vegetables, sprinkle with paprika and garnish with parsley if desired.
11. Note: This can be baked in an oven-proof casserole rather than a crock-pot.
12. Bake at 350°F for approx 1 1/2 hours, or until meat and vegetables are tender.
Rabbit Stifado

Ingredients:

1 large rabbit, jointed (approximately 3 1/2 pounds)
2 bay leaves
4 tablespoons red wine vinegar (balsamic also works nicely)
1/2 cup olive oil
2 tablespoons tomato paste
1/3 teaspoon sugar
4 garlic cloves, roughly chopped
1 small cinnamon stick (about a 3-inch length)
4 whole allspice
1 sprig rosemary
2/3 cup red wine
1 1/4 cups hot water
salt and black pepper
1 1/2 lbs white pearl onions, peeled, left whole

Directions:

1. Rinse the rabbit pieces and place them in a mixing bowl together with the bay leaves and vinegar; mix well and leave to marinate for at least 2 hours, or overnight; remove the rabbit from the marinade and pat dry with kitchen paper.

2. Heat half of the olive oil in a large saucepan until hot, add the rabbit and fry the pieces until quite brown on all sides; add the tomato paste, bay leaves (left over from the marinade), sugar, garlic, spices, wine and the hot water.

3. Season with salt and pepper.

4. Bring to the boil mixing well then reduce the heat, cover and simmer for about 1 hour.

5. Meanwhile, heat the remaining olive oil in a frying pan; add the onions and sauté gently for 15 minutes stirring occasionally, until golden all over; after the rabbit has been cooking for 1 hour, add the onions and oil from the frying pan to the saucepan; combine, then re-cover and simmer for a further 15 minutes; fish out the cinnamon stick, allspice berries and rosemary sprig.

6. Note: This can be served with pasta, noodles, rice or oven-roasted potatoes, but my personal favourite is homemade french-fries, which taste delicious dunked in the spicy sauce.