

**Regulatory Veterinary Medicine**, in the US, is a government function; performed by US department of agriculture (USDA) veterinarians, state departments of agriculture (i.e. Colo. Dept. of Ag.) veterinarians, and private practicing veterinarians accredited by the U.S. and state departments of agriculture.

- Regulatory Veterinary Medicine is basically Veterinary Medicine that is performed by government employees and accredited veterinarians in fulfilling state and federal laws dictating health regulations involving domestic animals. Most of these laws involve farm animals but pets are also regulated in many ways. Wildlife species can also be regulated by these laws.
- One goal of regulatory medicine is keeping our country's and state's total livestock herds healthy and free of domestic contagious diseases that affect profitability. Another goal of regulatory officials and accredited veterinarians is to prevent the introduction of foreign animal diseases into the U.S. Foreign animal diseases (also referred to as exotic animal diseases), if introduced into the U.S. can have a dramatic negative effect on animal health. These health issues will affect livestock sales, food exports, livestock exports and the profitability of farm animals and food products. For example; the occurrence of "Bovine spongiform encephalitis" in the U.S. dramatically reduced beef exports from the U.S. to 65 countries around the world from 1.3 million metric tons in 2003 to .32 million metric tons in 2004, after only a single case of BSE was discovered in the US in December of 2003. This case was the result of an animal imported into the U.S. from Canada.
- Federal and state departments of agriculture officials draft regulations that protect the national livestock herd. Many of these officials are specialists in epidemiology or other infectious disease disciplines.
- A licensed veterinarian must become accredited by the USDA prior to performing regulatory functions on behalf of the federal or state government. Accreditation requires that a licensed veterinarian pass an accreditation exam covering domestic and foreign animal disease control issues and also must meet continuing education requirements.
- A partial list of regulatory functions would include:
  - **Interstate health certificates** - The issuing veterinarian must determine that (1) all animals are adequately identified with a permanent ID (cattle) or a picture or drawing showing all markings and brands (horses), (2) that the animals meet all pre-entry requirements for the state of destination, such as brucellosis vaccination, which is required by many states, (3) that the animal is determined to be healthy through a physical exam or visual observation, (4) that suitable results

(usually negative) for all required disease tests have been obtained and (5) any treatments or vaccinations required by the state of destination have been administered. Assuming that all entry requirements for the state of destination have been met, the issuing veterinarian can then call the state veterinarians office, in the state of destination, and obtain an entry permit, if one is required. Then a health certificate or "Certificate of Veterinary Inspection" (referred to as a CVI) is completed. The CVI lists the consignor's and the consignee's relevant addresses. The species and number of animals is noted. The date and method used to transport the animals is noted. The name and address of the person responsible for transportation (usually the person driving the truck) is noted. All animals to be shipped are usually individually listed on the health certificate. All tests performed, including the result, and abnormal health exam findings are listed for each animal. The health certificate should also include a listing of all treatments and vaccinations administered prior to the shipment. The accredited veterinarian who performed the health examinations is responsible for filling out the CVI on the livestock and must sign the health certificate. As soon as possible (certainly within 2 weeks) after the shipment two copies of the CVI must then be mailed to the state veterinarian in the state of origin of the shipment. The state veterinarian then will forward a copy of the certificate to the state veterinarian in the state of destination.

- **International health certificates** – These are similar to those required for interstate purposes. They require proper identification, testing, and treatment of the animals that will be exported or of the animals that are producing products that will be exported (such as semen, embryos, hides, meat, etc) according to protocols that are dictated by the importing country. Once testing and other procedures such as quarantine or production of the products to be exported is complete; a health certificate can be written and then the CVI must be approved and endorsed by a USDA veterinarian. Then the animals or animal products must be exported according to the importing countries requirements.
- **Brucellosis vaccination** - of heifers only, should be performed prior to the heifer achieving 12 months of age. The heifers should be identified with a proper vaccination tattoo in the right ear's concave area and usually a metal vaccination tag. The tattoo includes an "R" indicating that the RB51 Brucella abortus vaccine strain was used. The tattoo also includes a "US Vaccination Shield" and the last

digit of the year of vaccination i.e. “3” for 2013 (and 2003). The tattoo is noted as “RV3” on the vaccination document. The vaccinated heifers are tagged with an orange metal “clip” tag with a number that is unique in the USA. In Colorado, that number begins with 84, then 3 letters and 4 digits. For example 84VAB1234, the 84 means that the tag is a Colorado origin tag. The V stands for “Vaccinate” and is present on all vaccination clip tags. A sequence of tags, ordered by a veterinarian, are registered to that accredited veterinarian so that an animal can be traced back to the veterinarian and from there back to the farm of origin. Keeping an accurate record of the application of these ear tags is important for the purpose of animal trace-back if it is ever necessary.



Vaccination tattoo applied to the concave skin surface of the right ear, orange clip tag also

- **Brucellosis testing** of infection suspects and cattle to be sold or moved interstate or internationally may be required. All tested animals must have acceptable identification or else they must be ear tagged with a unique, shiny metal, “bright”, clip tag. Like the vaccination tag, in Colorado, the test tag begins with 84, then 3 letters and 4 digits, for example 84ABC1234.
- **Tuberculosis testing** is required for all dairy cattle, periodically, usually every other year, to meet FDA and USDA health standard. TB suspects and cattle to be shipped interstate and cattle to be shipped internationally may also be required to be tested for TB. All tested animals must have acceptable identification or else they will also be ear tagged with a unique “bright” test tag with the

84ABC1234 pattern. All dairy cattle must have a bright test tag.

- **Equine Infectious Anemia (EIA) testing;** either an AGID “Coggins Test” or an EIA ELISA test, is required by all states for interstate movement of horses into their state. An EIA test is also required by most horse shows and competitive events prior to admittance to the event.
- **Prevention of the introduction of exotic (foreign) animal diseases into the U.S.**

Probably the most important regulatory functions of the USDA and all veterinarians

The USDA has developed and enforces import requirements for animals and animal products originating in foreign countries that are to be imported into the U.S.

These entry requirements are country of origin specific. They are based on knowledge of the exporting country’s status with respect to contagious diseases of concern.

Diagnostics, testing, and quarantine of animals both prior to importation and after importation can assure identification and prevent the importation of exotic animal diseases.

One concern other concern is the possibility of foreign animal diseases being brought into the U.S. on the clothes and shoes of international visitors. These travelers may have been exposed to contagious animals on farms and food markets in foreign countries. Immigration and Customs Enforcement and the USDA are addressing this issue in customs inspections, interviews and seizures of prohibited foodstuffs of travelers that arrive from countries infected with exotic diseases of concern.

The USDA monitors the health status of foreign countries through membership in the World Organization for Animal Health (OIE – French for ‘*Office International des Epizooties*’), along with 178 other countries. All members are required to report epidemiologically significant disease occurrences in their country to that OIE members are aware of international disease status.