

# LEGISLATION and REGULATION



## *Horse Racing and Drug Abuse*

The Humane Society of the United States (HSUS) and the American Horse Protection Association (AHPA) have drafted legislation to curb the abuse of drugs in horse racing. The bill, which will be introduced in the House by Representative Bruce Vento (D-Minn.) in early 1980, proposes the following:

1. Prohibition of all pre-race administration of medications capable of affecting a horse's performance at the time of the race;
2. Prohibition of numbing an animal's legs with ice, dry ice or any other chemical agent on the day of the race, and elimination of the practice of permanent numbing through surgical neurectomy;
3. Establishment of uniform pre-racing inspection and drug testing programs;
4. Strict enforcement of penalties for persons convicted of wrongfully drugging or numbing a racehorse.

Drug abuse in the horse racing industry is a complicated issue. States vary in their interpretations of the question of when legitimate use

grades into manipulation for profit at the risk of both horse and jockey. For example, phenylbutazone ("bute"), a potent anti-inflammatory with significant beneficial properties, is routinely prescribed to reduce pain and restore some degree of function to arthritic or otherwise inflamed joints in horses. However, by relieving pain, phenylbutazone permits the racing of a horse on an injured limb, which not only prevents healing but also aggravates the condition. Deprived of the warning signal of pain, whether through medication or physical means such as numbing, an unsound horse can race, do itself further injury, and in the most serious cases, break down on the track. According to a study by sportswriter Russ Harris, on-track breakdowns at Philadelphia's Keystone Racetrack increased 400% after the legalization of bute in Pennsylvania.

Other instances of drug abuse in horse racing involve the misapplication of a drug to mask disease or even confuse detection of illegal substances in the animal's system. Furosemide (Lasix) is a diuretic prescribed for the relief of hypertension in humans. Several states allow furosemide to be used for treatment of nosebleeds in racehorses, although the Food and Drug Administration (FDA) has never approved the drug for this purpose. HSUS field investigator Marc Paulhus explained that "nosebleed" is a misleading term for epistaxis (pulmonary hemorrhage) induced by the stress of racing. Dr. George Maylin, of the Cornell University School of Veterinary Medicine, stated that in clinical trials, some, but not all "bleeders" respond to furosemide therapy. However, the exact pharmacological mechanism by which furosemide alleviates bleeding is unknown. Furosemide also increases urinary output, thus giving rise to the argument that administration of the drug leads to dilution of other chemicals (such as narcotics)

which may have been in the horse's bloodstream to the point where they are undetectable in postrace testing.

The proposed legislation aims to prevent such abuse primarily through federally mandated minimum standards for testing the blood and urine for horses *before* they race. As it stands now, most states (excluding New York, which has pre-race testing) test only the first three horses to cross the finish line. Drafters of the bill believe that the federal government can alter this situation by developing better, more specific testing programs to remove illegal pharmaceuticals from the track and put tighter reins on the widespread abuse of legal substances, a considerable array of which are currently available to the horse racing industry.

[Ed. Note: On November 15, 1979, the Maryland Racing Commission imposed a ban on pre-race administration of all drugs, effective January 1, 1980. However, on December 19, it was announced that the ban would be postponed until March 15, 1980, and further that the use of lasix in confirmed bleeders would be allowed. Arkansas, New Jersey and New York regulations also prohibit pre-race medication, although New Jersey allows the use of Lasix for bleeders.]

#### **UK Animal Experimentation**

In 1876, the first legislative bill to regulate the use of animals in laboratory research was signed into law in Britain. Known as the Cruelty to Animals Act of 1876, a title which has continually disturbed researchers, it lays down conditions under which experiments causing pain to animals may be carried out. The Act specifies that potentially painful experimentation on vertebrates may be conducted only in registered facilities by persons holding an appropriate license from the Home Office. Licensed individuals may carry out experiments using anesthesia from which the animal must *not* be allowed to recover.

However, experiments requiring recovery of the animal can be conducted if the license holder obtains an appropriate certificate. Simple procedures, such as inoculations and blood sampling, do not need certification.

When the Act passed, only a few hundred animals each year were used for experimentation in the UK, but the figure now exceeds five million per annum. (This does not include another estimated five million animals killed for their tissues or for sundry other purposes.) It has been frequently argued that the Act as written is no longer adequate in view of the dramatic increase in animal experimentation (J. Hampson, *New Scientist* 84:280, 1979). Protests by animal welfare organizations did lead to a Home Office departmental enquiry in the 1960's under the chairmanship of Sir Sidney Littlewood. The Committee Report, published in 1965, put forward 83 recommendations for reform, some of which would have required new legislation. However, no action was taken on the recommendations resulting in a spate of private members' bills during the late 60's and early 70's.

None of the private members' bills (a device in British Parliament by which a few individual members selected by lottery can introduce bills on subjects of personal concern) was successful, although one bill introduced in 1972 by Mr. Douglas Houghton (now Lord Houghton of Sowerby) reached the final reading before being talked out. In essence, Houghton's bill stipulated that "...no experiment on a living animal..." should be performed if the purpose could "...be achieved by alternative means not involving an experiment on a living animal."

In 1976, animal welfare and antivivisection organizations in Britain came together in an effort to promote Animal Welfare Year. This collaboration bore fruit in the form of the

One of the Littlewood Committee members, Ms. Joyce Butler, accepted the Report on the grounds that the following three questions lay outside the Committee's terms of reference:

- a) Who can say whether, if certain biological tests were forbidden, satisfactory chemical or other methods of testing would not be developed.
- b) Who is responsible for establishing whether modern medical techniques, with their emphasis on immunology and chemotherapy, both of which are inseparable from animal experimentation, are steering medicine in the right direction?
- c) Who is responsible for moral and ethical judgments in the uses for experimental purposes as such?

The Littlewood group recommended that these questions be examined by an Advisory Committee to be constituted as a standing body with power to act on its own initiative.

General Election Coordinating Committee for Animal Protection (GECCAP). In response to GECCAP activity, all three major British political parties included some statement on animal welfare in their election manifestos.

The pressure created by constituents, a combined animal welfare lobby, and European institutions such as the Council on Europe's Expert Committee on Animal Protection has led to a pledge by Mrs. Thatcher that her government will update the 1876 Act.

In the meantime, two opposing bills on laboratory animal use are before Parliament. The first bill has the backing of the Research Defence Society, and was introduced by their president, Lord Halsbury. (The Research Defence Society was founded to counteract perceived antivivisectionist excesses and to inform the public of the value of animal experiments.) The second bill, introduced by Peter Fry, was reportedly sponsored by the Royal Society for the Prevention of Cruelty to Animals. However, a letter to *New Scientist* (84: 719, 1979) from Richard Ryder, Council Member of the RSPCA, denies sponsorship of the bill. Ryder argues that the Fry Bill is "not the animal welfare charter that it is being cracked up to be," and states that it is therefore highly unlikely that the RSPCA Council "will be able to support a bill which in some respects promises to make the animals worse off than they are already." Specifically, he claims that the bill fails to provide proper control over the infliction of pain, increased public accountability via a properly composed Advisory Committee, satisfactory constraints on researchers to use alternatives wherever possible, and restriction of live animal experimentation to worthwhile medical purposes. Ryder does, however, concede that the Fry Bill is preferable to the Halsbury Bill.

The Halsbury Laboratory Animal Protection Bill proposes a number of changes in the conduct of animal experiments. For example, the definition of the term 'experiment' will be broadened to cover all procedures in which animals are used. At present, 'experiment' does not include the production of antibodies, hormones, sera or vaccines. In addition, the Bill sets out specific conditions for the establishment of an Advisory Committee, empowers the Home Office to regulate the breeding, procurement and husbandry of laboratory animals, and requires the Home Office to publish a *Guide to Good Laboratory Practice*.

The Fry Protection of Animals (Scientific Purposes) Bill in the House of Commons goes further than the Halsbury bill. The Fry bill insists that experiments be licensed only if they are "...for the advancement of biological sciences in a way which is calculated to lead to the saving or prolonging of life." This means that research proposals will have to be justified by reference to medical benefits, a situation which, in the euphemistic words of Cambridge physiologist Lord Adrian, "...will make speculative research very difficult" (*New Scientist* 84: 501, 1979).

The Halsbury bill has fallen under fire from both animal welfare groups and the scientific community. The scientists' complaints stem from the fact that the Research Defence Society rushed through the consultation process with representatives of the learned medical societies, leaving many of them without sufficient time to canvas members for their reactions. One defender of animal experiments, Professor Sam Shuster, is particularly disturbed about some of the provisions of the Halsbury bill. He believes that it will furnish an ideal opportunity for those "small of mind" to operate the system, thus choking creativity. Many researchers also fear the possible invasion of privacy implicit in the proposal to have two sponsors for license applicants — one to give a character reference and one to vouch for the procedures proposed.

Despite considerable opposition, the Halsbury and Fry bills have cleared two of the three hurdles in the respective Houses of Parliament. According to Member of Parliament Tam Dalyell, those MPs who intend to vote against the Fry bill may pause first to consider how much local animal welfare groups can stir up their constituencies. Thus, GECCAP continues to influence Parliamentary actions, even though the general election is long past and the Conser-

vatives now have a comfortable majority. Tam Dalyell also argues that while some animals are used for important medical research, most end up in laboratories testing substances of little or no benefit to humanity, such as new cosmetics and cleaning fluids (*New Scientist* 84: 293-94, 1979). In fact, the most recent Home Office statistics on animal experiments (See News and Review — Lab Animals) reveal that the greatest number of animals are used in the development and testing of new drugs. However, even if the testing of household and cosmetic products does not statistically constitute a major demand for laboratory animals, significant suffering is involved in the Draize eye irritancy and LD50 testing. MPs are therefore questioning the honesty of claims that experimental animals do not suffer. Tam Dalyell is one example of an MP who appears to have changed position over the past few years. He is now working to preserve the Fry bill.

The increasing polarization of the scientific and animal welfare communities is perhaps inevitable, but unfortunate all the same. In 1875, the conflict created by two opposing bills led the government to establish a Royal Commission which may well have recommended against any legislation but for the evidence given by Dr. Klein, an Austrian physiologist who stated quite categorically that he only employed anesthetics for his own convenience, and that the feelings of his experimental animals were of no consequence whatsoever. In these enlightened times, another Dr. Klein is unlikely to appear. Instead, the Halsbury and Fry bills may be superseded by direct government action, possibly based on the Council of Europe's draft Convention on the Protection of Laboratory Animals. According to Hampson, (*New Scientist* 84:280, 1979), "Any new legislation must be more than a mere sop to placate public opinion. It must be a

well thought out Act, brought into being as a result of extensive deliberation with all interested and informed parties, including the more responsible animal welfare representatives and the entire scientific community, which has not, to date, really been consulted. A new Act must be seen to exert real control while effecting no damage to legitimate scientific research. Such constraint will require a balancing trick of some considerable skill."

## MEETINGS and ANNOUNCEMENTS



### MEETING REPORTS

#### *Charles River Symposium*

The Fourth Charles River International Symposium, entitled "Defining the Laboratory Animal and its Environment: Setting the Parameters," was held October 29-31, 1979 in Danvers, Massachusetts. This was the first of the international meetings sponsored by the Charles River Foundation to be held in North America, and in these times, it was not surprising that relatively few participants came from overseas. However, the topic of the meeting was most appropriate for American laboratory

animal scientists in view of current concern over the effects of new federal regulations on production, housing and use of laboratory animals in biomedical programs. According to remarks by some of the organizers, the meeting's objectives included communication of state-of-the-art knowledge in various aspects of quality control as well as the stimulation of further research to determine whether current practices are, in fact, optimal for the animals.

The presentations covered a wide range of subjects, including production, transport, microbial contamination, quarantine, nutrition, housing, cage standards, and the effects of noise, lighting and chemical contaminants on the animals. At the end of the first two days, the audience was left with the impression that housing and maintenance of laboratory rodents involved so many confounding variables that it was difficult to see the possibility of duplicating, and hence verifying, any results at all. On the final day, Dr. W. Jean Dodds (New York State Department of Health, Albany) attempted to restore some perspective by questioning whether aseptic environments of porcelain, stainless steel and finely filtered air are indeed in the best interests of the animal and of good research. She did not imply that the answer was no, but did highlight the fact, which was by then obvious, that we still have a very hazy idea of what constitutes an optimal environment for the animal and the researcher.

During the discussion of temperature and ventilation standards, Professor Emerson Besch (University of Florida, Gainesville) described the shaky foundations on which these standards are built. The foundations consist largely of the results of few studies by a researcher named Runkle (later extrapolated by Munkle!) on removal of odors from rooms in which animals are housed. Most current practices are based on modifica-