

Animal Scientist

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In spite of the benefits in the use of antibiotics, new FDA regulations (effective April 20, 1973) include several strict requirements if antibiotic use for livestock is to be continued. Preston pointed out that since sponsors of many of the drugs no longer hold exclusive market rights on the antibiotics they are not likely to feel it profitable to spend the money required to meet the new FDA regulations. The result probably will be that many useful antibacterial drugs

will probably be banned within a year or two simply by default.

The third category of additives—physiological supplements—involve mostly hormonal substances for beef cattle. The recently-banned DES (diethylstilbesterol) was such a substance. Currently, four of this type of additive product are approved for use with beef cattle. All increase the growth rate, apparently through an increased deposition of protein and no change or a decreased deposition of fat. The result is a leaner beef

carcass from an animal that reaches market size and condition earlier than one which received no additive.

Preston then turned to DES, tracing the rise and fall of the effective synthetic hormone. DES was first approved for cattle in 1954 after extensive tests showed no residues 48 hours after the substance was withdrawn from the ration. For 15 years, DES was used in the production of perhaps 80 percent of the finished cattle in the U.S.

However, a rapid and somewhat more sensitive analytical procedure was developed and detectable residues of DES began showing up in livers of an estimated 0.5 to 1.5 percent of cattle marketed. No residue was found in lean or fat meat from DES-treated cattle, according to Preston.

Operating under the "Delaney Amendment," which prohibits the use of any carcinogenic (cancer-producing) substance if even minute traces of residue are detected, FDA banned the

feeding of DES January 1 of this year and implantation of DES was banned April 27.

Preston called for replacement of the "zero tolerance" rule by established residue levels which are measurable but still so minute that they cannot be considered hazardous.

The Ohio scientist quoted a New York Times editorial which charged that "the Delaney Amendment is an all or nothing affair, and presumably would have applied even if the analytical equipment had found only one thousandth of a trillionth part of DES. This sounds more like fanaticism than intelligent public policy. Would not Congress be well advised to consult the scientist on what meaning if any, the law should give to infinitesimal quantities?"

The inconsistency of the action was emphasized by Preston by pointing out that a person would have to eat 5 to 10 tons of liver (with DES residues at 2-5 parts per billion) at one sitting just to equal the amount of estrogenic activity in birth control pills. "Interesting reading but the point is this: what constitutes a real carcinogenic level?" he asked.

He said that DES should not be classed as a carcinogen in cattle production unless it results in a residue greater than an almost impossible 25 parts per billion,

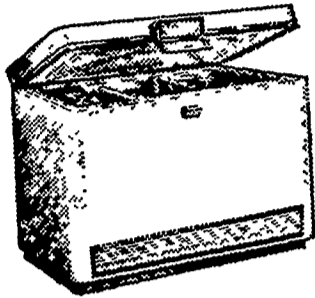
the level which induced tumors in susceptible strains of mice.

Preston pointed out that the U.S. consumer is the major benefactor in the use of feed additives. He charged that if American agriculture were forced back to agricultural procedures advocated by "organic farming" enthusiasts, food costs could be expected to at least double, food selections would become seasonal, and produce, including animal products would come from less healthy stock.

"Additives constitute an important scientific contribution to the efficient production of livestock. Considerable research is conducted to determine their efficacy and safety prior to their approval for use and subsequent marketing by commercial companies. Feed additives are regulated such that their use is perhaps one of the safest on record," Preston concluded. "To ban them on the basis of fear or scientifically unreasonable legislation would be a big step backward. If this occurs, I see little hope of solving the growing world food crisis, the solution toward which this country has so much to offer."

Where to Store Toys

Providing good storage space for your child's toys will help him keep them in good condition. James Van Horn, Extension family life specialist at The Pennsylvania State University, says low, open shelves help your child learn to stack his toys neatly. A toy chest looks attractive, but too often a child simply tosses all his toys in the box in the corner. Soon dolls have missing arms and cars lack wheels. And when the child wants a certain toy, he usually turns the box over to find it quickly. Open shelves leave all toys in view so that your child can easily see and choose the one he wants to play with.



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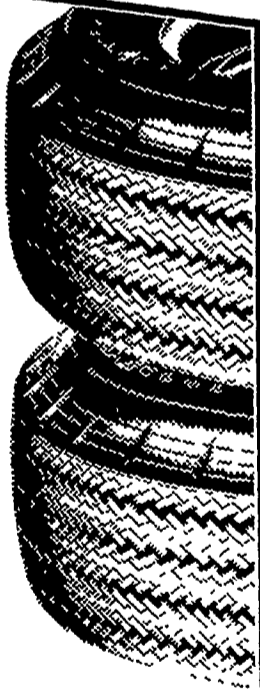
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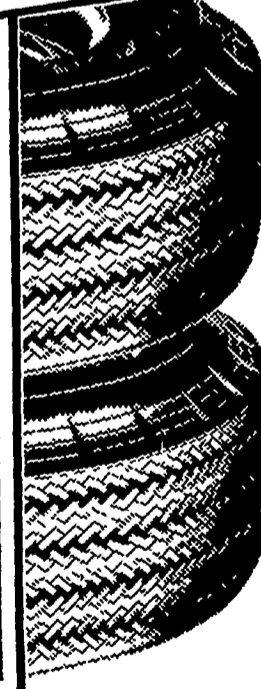
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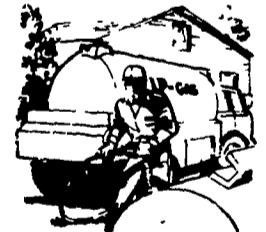
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