

## ORGANIC LIVESTOCK AND MEAT PRODUCTION IN THE U.S.A.

D. M. KINSMAN

University of Connecticut, Storrs, CT, United States

### INTRODUCTION

The 1990 U.S. Farm Bill included the Organic Food Production Act (OFPA) which in turn established a National Organic Standards Board (NOSB). This fifteen person Board representing producers, processors, handlers, retailers, consumers, environmentalists, scientists and toxicologists was selected to advise the Secretary of Agriculture on the development and establishment of uniform, national standards for producing, processing and labelling all foodstuffs that purport to be organic. Six committees operate separately within the NOSB, namely: (1) Accreditation, (2) Crops, (3) International, (4) Livestock, (5) Materials and (6) Processing. All of the following proposals are in the developmental stages but are addressing the concerns of the organic community and the intent of the Act (OFPA).

The definition of "Organic" has yet to be universally accepted. A general statement about organic farming applies: "organic farming is a production system which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators and livestock feed additives. To the maximum extent feasible, organic farming systems rely upon crop rotations, crop residues, animal manures, legumes, green manures, off-farm organic wastes, mechanical cultivation, mineral-bearing rock and aspects of biological pest control to maintain soil productivity and tilth, to supply plant nutrients and to control insects, weeds and other pests." Organic foods are produced, processed, packaged, transported and sorted without the use of artificial preservatives or colouring, irradiation or toxic synthetic pesticides. It is all inspected by trained personnel and authenticated by a third party certifier who verifies the long range farm plan and each step in the production and processing chain and maintains appropriate records.

There is a distinction between "organic" and "natural". In general, "natural" foods are produced with a minimum of "synthetic" materials; permitting the use of chemical fertilizers and other adjuncts but does not allow the use of hormones and antibiotics and only uses pesticides and parasiticides under indicated conditions. "Organic" foods have more stringent requirements, not only disallowing "synthetics" but requiring that the land on which crops and feeds are produced or livestock grazed must be free of such additives for a period of three years. Moreover, all foods produced under these circumstances must be processed and packaged under "organic" conditions with nothing coming in contact with the product that would compromise its organic integrity. Equipment, cleaning agents and sanitizers, packaging materials, storage and all facilities and handling procedures must meet and maintain strict regimes. A record or paper trail verifying all steps from production to market must verify all organic products. "Organic" does not mean or guarantee that the product is free of pesticide residues.

### ORGANIC LIVESTOCK PRODUCTION

All domestic farm animals, including beef, dairy, goats, horses, poultry, rabbits, sheep and swine, as well as bees, fish and game animals are considered in the category of livestock. They must all originate from certified organic stock or be brought into organic specifications in due time. Day-old chickens are acceptable for organic poultry, but all other stock must be born to organic parents or be fed and raised organically for the major portion of their life either as breeding stock or for ultimate slaughter. In all cases, the livestock must be fed 100% certified organic feed -- whether it be pasture, forage or roughage or grain -- including any feed additives. All of these feedstuffs must originate from soil or land that has been free of "synthetics" for a period of at least three years. The term "synthetic" means a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted

from naturally occurring plant, animal or mineral sources, except that such term shall not apply to substances created by naturally occurring biological processes. Basically the "synthetics", which are not allowed, are chemical fertilizers; pesticides, including herbicides, insecticides and parasiticides (both external and internal); antibiotics; and hormones or growth promoters.

A National List of "approved synthetics" such as essential amino acids, essential minerals, essential vitamins and certain critical vaccines and topical and systemic health aids will be developed following thorough technical review. Another "prohibited naturals" list will also be published which will not allow the use of identified naturally occurring toxic plants and their derivatives.

Livestock which are treated with prohibited materials, fed less than 100% organic feed, or otherwise do not meet the standards for organic livestock shall not commingle with organic livestock. Any organic livestock that are compromised, fed or treated with any "prohibited natural" or "synthetic" materials must be removed immediately and diverted to the conventional market when sold. Breeding stock may be purchased from any source if such stock is not in the last third of gestation. The animal must thereafter be isolated for 90 days, fed 100% organic feed, and its progeny raised organically from birth. Then the offspring would be considered organic and the dam could then be converted to organic over time, if not already eligible.

The statutory requirements for organic certification of livestock embodied in the OFPA prohibit feeding of plastic pellets for roughage, manure, or formulas containing urea. Drinking water must be free of contamination by hazardous substances and must meet the EPA tolerance level for drinking water for humans. If water is suspected of being contaminated with synthetics, then it must be tested for residues.

Health care practices prohibited under the statute include:

- (1) use of "subtherapeutic doses of antibiotics";
- (2) use of "synthetic internal parasiticides on a routine basis";
- (3) administration of "medication, other than vaccinations, in the absence of illness."

Furthermore, intensive confinement production systems such as battery cages for poultry, crates for veal and sows, except for the latter during farrowing periods, and tethering animals in a confinement system are strongly discouraged.

All large animals must be individually identified and traceable throughout their lifetime and all poultry and fish identified and traceable by lot or pen or tank. Records are mandatory for all aspects of organic production, including feed and health care.

## ORGANIC MEAT PROCESSING

All livestock processed for meat purposes must be in total compliance with all USDA, FSIS regulations for transportation, ante-mortem inspection, humane slaughter and post-mortem inspection. In addition, to meet organic meat standards, animals may not be commingled with non-organic animals in transit to market or at the packing plant nor at any point prior to slaughter, including in holding pens or chutes at the abattoir.

All organic livestock should be slaughtered as a lot, preferably at the start of the day's operation or solely on a particular day. If dressed later in a day's program then all equipment and facilities should be thoroughly washed, sanitized and rinsed appropriately before slaughtering organic livestock. Organic meat, carcasses and cuts, should be stored separately from non-organic product, preferably in separate coolers or at least with a buffer zone or some type of acceptable barrier between the two products. Extreme care must be taken to prevent any contact with the organic product, to avoid compromising the organic integrity. Positive identification must accompany all organic product at all times.

Meat processing must meet rigid standards prescribed by organic regulations which must reflect, at a minimum, good manufacturing practices. All seasonings and smoke generated sources must be of approved materials and themselves

be of organic origin if such is commercially available. Natural casings must come from organic sources. Artificial casings also must be approved for use with organic processed meats. Statutory regulations prohibit the use of nitrates, nitrites and sulfites, as well as any synthetic additives or adjuncts.

Curing may only be accomplished with the same purity as other processing and definitely without the use of nitrates/nitrites or synthetic materials. As with all organic processed foods, a maximum of 5% non-organic ingredients may be used if organic ingredients are not commercially available and are essential to the finished product or mandated by state or federal law or appear on the National List of allowable non-organic ingredients. Packaging materials and containers must be of approved materials that will not react chemically or contaminate the product directly by chemical transfer.

Proper labelling is essential to the identity and marketing of organic foods. The term organic may appear on the principal panel only if the product fully qualifies and is certified as organic and then only to the percentage to which it is organic. Thus, it could be identified as 100% organic only if all ingredients were certified organic. Similarly it could be represented as 95% organic if such were the case. No product with less than 50% organic would be allowed to show the word "organic" on the principal panel. If pesticide residues are detected in organic foods, but at less than 5% of the EPA tolerance level, then the product will continue to be considered organic. The ingredient or information panel must list all ingredients in descending order of predominance and must identify all organic ingredients as organic if the term "organic" is to appear on the label. The statement "organic when available" may not be used.

Organic foods in storage must be protected from abuses due to mishandling, pest control fumigation or bait, exposure to noxious atmospheres and other such storage or handling procedures that could compromise the integrity of the product. Such surveillance must protect all organic foods at every interface from producer to consumer to protect the organic integrity of the product and the confidence and respect of the consumer.

The inspector and certifying agent are key to the entire flow of product at every step of the way and the trail and its verification are critical to the entire procedure. The demand for organic foods, including meat and meat products has increased enough to require a sound and practical production, processing, certification and marketing system that must be respected to serve the consumer and protect the environment. In 1990, \$1.25 billion worth of organic foods was sold in the U.S.A.

#### REFERENCES

USDA. 1990. *Organic Food Production Act (OFPA)*. Title XXI of the U S Farm Bill. Congress of the United States, Washington, D.C.

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