A Meating of the Minds: Possible Pitfalls and Benefits of Certified Organic Livestock Production and the Prodigious Potential of Brazil

Adam C Schlosser, University of Miami School of Law
A MEETING OF THE MINDS: POSSIBLE PITFALLS AND BENEFITS OF CERTIFIED ORGANIC LIVESTOCK PRODUCTION AND THE PRODIGIOUS POTENTIAL OF BRAZIL

Adam Schlosser*

ABSTRACT

Certified organic food represents the fastest growing segment of food production in both the United States and throughout the entire world. This article examines the issues and opportunities facing both large and small-scale farmers who wish to engage in organic livestock production. Organic regulations cover everything involved in production, starting with the organic certification process and concluding with slaughter and the subsequent shipping and

ABSTRACT

I. INTRODUCTION

A. Farmer and Consumer Views of Organic Livestock
B. Creating Certified Organic Livestock Production Standards
II. LIVESTOCK PRODUCTION IN A CERTIFIED ORGANIC SYSTEM
A. Certification Enforcement Issues
B. Are the Organic Livestock Standards Living Up to Both Farmer and Consumer Expectations?
C. Issues Directly Related to Animal Production
   1. Breeding
   2. Living Conditions and Feeding Requirements
   3. Organic Livestock Health Maintenance and Disease Prevention
III. THE MASSIVE CERTIFIED ORGANIC LIVESTOCK PRODUCTION POTENTIAL OF BRAZIL
A. Framework for Brazilian Organic Livestock Production
B. Brazilian Efforts to Directly Increase Exports
C. Current Organics Situation in Brazil and Methods to Assist Farmers Achieve Organic Certification
IV. CONCLUSION
sale of the end organic product. The final section of this article addresses the unique ability of Brazil – described alternatively as “the world’s warehouse” and the “world’s [future] source of food” – to increase the economic prosperity of its burgeoning farming industry by capitalizing on the world’s current organics craze. The conclusion focuses on suggestions for both public and private entities to aid in the continued development of the Brazilian organic livestock industry. Many suggestions also prove applicable to other less developed Latin America countries.

I. INTRODUCTION

The production and consumption of organic food is growing exponentially in the United States and throughout the world. Organic food represents the fastest growing segment of food purchases in the United States. Over two-thirds (69%) of Americans report consuming organic products at least occasionally. Globally, organic food and drink sales reached $40 billion in 2006. Organic food sales within the United States swelled to $16.7 billion in 2006, a 20.9% increase over the previous year. Experts predict continued strong sales reaching $17.8 billion in 2007, and rising approximately eighteen percent per year until 2010.

The sale of organic meat outpaces the rapid overall growth of the total organic food market by a substantial margin. Organic meat sales reached $330 million in 2006 representing a fifty five percent increase over the previous two years. Sales were projected to reach about $400 million in 2007.

1. A. Bryan Endres, An Awkward Adolescence in the Organics Industry: Coming to Terms with Big Organics and Other Legal Challenges for the Industry’s Next Ten Years, 12 Drake J. Agric. L. 17, 18 [hereinafter Endres].
6. OTA, supra note 4.
7. Id.
8. Id.
Organic food is now available in about 20,000 natural food stores and nearly three out of four conventional grocery stores. Despite the widespread availability of organic food, these seemingly high sales figures represent just 2.5% of total United States food sales. Organic food, therefore, represents an excellent opportunity for further market growth and increased income for farmers. The United States stands as a net importer of organic food by a wide margin, creating opportunity to increase economic prosperity of farmers all over the world, provided those farmers gain access to the lucrative US market.

The first section of this article examines the issues and opportunities facing both large and small-scale farmers who wish to engage in organic livestock production. This section also addresses the statutes regulating everything involved in organic production, starting with the organic certification process and concluding with slaughter and the subsequent shipping and sale of the end organic product. The final section of this article addresses the unique ability of Brazil – described alternatively as “the world’s warehouse” and the “world’s [future] source of food” – to increase the economic prosperity of its burgeoning farming industry by capitalizing on the world’s current organics craze. The conclusion focuses on suggestions for both public and private entities to aid in the continued development of the Brazilian organic livestock industry. Many suggestions also prove applicable to other less developed Latin America countries.

A. Farmer and Consumer Views of Organic Livestock

The ideas that shape organic livestock production are vastly different than the methods employed by most conventional production systems. Traditional livestock production goals aim to achieve maximum animal size using the minimum amount of feed in the

9. USDA, supra note 5.
10. Id.
shortest time period possible. On the other hand, most farmers and organic organizations view organic production as revolving around the central theme of a return to the traditional harmony found in nature between animals, plants and the entire surroundings. Organic production combines a set of ethical values towards the environment, socioeconomic justice, and animal welfare in addition to providing a system of agricultural methods. Animals are essential to the entire organic process since “[m]other earth never attempts to farm without live stock.” Farmers demonstrate a reduced reliance on traditional chemical fertilizers, synthetic medicines, antibiotics, and growth hormones. Overall animal welfare is enhanced through improved health, disease prevention, and providing the animals and opportunity to live a good, natural life. The concept of improved animal welfare shapes the philosophy of almost all organic organizations, yet there remains ambiguity over the true meaning of this concept. Contrary to some opinions, the goal of animal welfare should be ensuring natural behavior and living conditions as opposed to preventing any livestock’s potential pain or suffering. In a true natural environment animals would, in fact, experience some form of pain and suffering during the course of their lifetime. The general consensus, however, indicates that the animals’ living conditions should allow for naturally occurring be-

13. See ADRIAN MYERS, ORGANIC FUTURES: THE CASE FOR ORGANIC FARMING 105 (Green Books 2005) [hereinafter Myers].
15. Donald T. Hornstein, The Road Also Taken: Lessons From Organic Agriculture for Market and Risk-Based Regulation, 56 DUKE L.J. 1541, 1547 [hereinafter Hornstein].
17. See Hornstein, supra note 15 at 1549.
20. See id. at 191.
haviors, including a “freedom of choice” of food and drink, the ability to move about, lie down, and remain in a social herd.\textsuperscript{21}

The average consumer postulates a somewhat different definition of organic livestock production than the average farmer. Consumers think organic meat is healthier, better for the environment, and free from synthetic chemicals that may be harmful to long-term health.\textsuperscript{22} Consumers also think livestock raised in an organic system receive better treatment than livestock produced in a conventional style system.\textsuperscript{23} Those choosing to eat organic meat also see organic meat as offering a safe haven from various food scare epidemics, such as Mad Cow.\textsuperscript{24} In fact, after every major food scare, a subsequent surge in organic food sales followed.\textsuperscript{25}

\textbf{B. Creating Certified Organic Livestock Production Standards}

Faced with such a variety of ideas, and without any regulation, consumers expressed frustration over too many labeling standards and production techniques and demanded a definition they could trust.\textsuperscript{26} Some feared unscrupulous farmers could potentially hoodwink consumers by making false claims about the processes used to raise the animals.\textsuperscript{27} The United States Department of Agriculture (USDA) recognized the need to quell any fears and set about creating a codified set of guidelines to harmonize the use of the term “organic” on a food label. The organic certification process is important because it protects consumers, and farmers, against the use of misleading or even false labels and claims.\textsuperscript{28} It also serves as a guideline for farmers to improve production methods and gain ac-

\begin{footnotesize}
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\item[21.] Mette Vaarst, et al., \textit{Animal Health and Nutrition in Organic Farming, in Organic Agriculture: A Global Perspective}, 167, 175 [hereinafter \textit{Animal Health}].
\item[23.] See Vaarst et al., supra note 14.
\item[25.] See Pollan, supra note 16, at 152.
\item[27.] Id. at 9.
\end{itemize}
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cess to various export markets and price premiums.29 Accredited certification bodies, in addition, must be transparent, impartial and ensure the farmer maintains organic standards throughout the entire process from “the earth to the consumer.” The U.S. made several unsuccessful attempts to implement a national organic standard occurred before the National Organic Program (NOP) finally became law in 2002.31

Today, a farmer wishing to sell meat labeled as “organic” in the United States must follow the certification and production guidelines put forth in the NOP.32 Foreign livestock farmers wishing to export their organically produced meat must also obtain a certification through one of the NOP’s forty international certifying agencies.33 A product cannot be certified organic unless it is grown in a controlled environment where all inputs and other conditions can be fully monitored.34 Organic production standards cover everything that might influence the animal.35 This includes animals raised in both organic stable and organic pasture systems.36 The standards also include all handling by humans, transport, slaughtering, as well as all influences to the environment caused by the animals.37

29. See id.
30. Id. at 28.
35. Bernhard Horning, Organic Livestock Husbandry and Breeding, in ORGANIC AGRICULTURE: A GLOBAL PERSPECTIVE 151, 152 [hereinafter Horning].
36. Id.
37. Id.
II. LIVESTOCK PRODUCTION IN A CERTIFIED ORGANIC SYSTEM

Analyzing both consumers’ and farmers’ view of the meaning of the term “organic,” the next section of this article addresses some issues, and possible solutions, resulting from National Organic Program (NOP) regulations.

A. Certification Enforcement Issues

The moment a new standard is created, unscrupulous farmers inevitably will attempt to reap the economic benefits without accepting the responsibility of performing the social requirements of the new standard. Luckily, the farmers attempting to find a way around the NOP standards appear to be the exception and not the rule. Most farmers undergoing the time and expense of becoming compliant with NOP standards want those high standards strictly enforced throughout production. In practice, however, enforcement of NOP compliance proves problematic.

Certifying agents may conduct one on-site inspection annually, and no mandatory product testing must occur during this inspection. NOP regulations simply state there may be periodic testing for harmful pesticides, chemical residue or the presence of other prohibited substances. Farmers are also supposed to notify the inspection agents of potential contamination that may be accidentally introduced, often through wind or rain, into their organic pasture land, but farmers typically do not even realize if any contamination occurred. Even if they do realize contamination occurred, the farmers are almost certainly better off staying silent and turning a blind eye to any potential contamination. If the certified organic pasture is contaminated – even accidentally – the farmer faces a pos-
sible loss of certification and an ensuing loss of income.\textsuperscript{43} Staying silent, however, poses a problem since organic food can easily be accidentally contaminated, negating the benefits of the organic certification requirements.\textsuperscript{44} If the certifying body suspects a violation of the NOP’s standards – which is often hard to detect during only one brief visit a year – the certifying body is to conduct testing of the final organic product at its own expense.\textsuperscript{45} Faced with the rising cost of maintaining organic certification and a potential loss of business, farmers may be best served to just switch to another cheaper, less strict, certifying agent.

USDA’s auditors find great difficulty in ensuring that the certification agencies in foreign jurisdiction are following the procedures mandated by the NOP and enforcing all necessary requirements.\textsuperscript{46} The problem with private certification agents overseas is similar to the domestic certifying agents. The system appears to be set up to enforce standards as loosely as possible. Certifiers are essentially in competition with each other to attract as many clients as possible by keep costs as low as possible. This often will result in infrequent and inadequate inspections, a lack of sanctions, and insufficient enforcement of rules.\textsuperscript{47}

Proper punishments for farmers found in violation of their organic certification requirements present a major problem. When one organic farmer is found to be in violation of organic standards, all organic food farmers often suffer, making the organic industry unique.\textsuperscript{48} Complaining about other farmers who fail to follow standards or an absence of standard enforcement may cast all farmers, even those in compliance, in a negative light. Illustratively, an erosion of consumer confidence in organic certification standards occurs following public farmer protests about fraudulent organic practices.\textsuperscript{49} In fact, some have gone so far as to say that the potential risk of loss of domestic and foreign demand that could result from a

\textsuperscript{43} 7 C.F.R. § 205.671.
\textsuperscript{44} See e.g. Michelle T. Friedland, Article, You Call That Organic? The USDA’s Misleading Food Regulations, 13 N.Y.U. ENVTL. L.J. 379, 398-399 (2005) ] [hereinafter Friedland] (explaining pesticides often drift beyond their targets.
\textsuperscript{45} See 7 C.F.R. § 205.670(b).
\textsuperscript{47} See id.
\textsuperscript{48} See Endres, supra note 1, at 36.
\textsuperscript{49} See Jones, supra note 22, at 445.
thorough organic certification audit may not be worth the risk. Farmers paying for extensive testing are at a competitive disadvantage against farmers that simply keep their mouths shut and follow the NOP regulations. The best solution to problems of certification violation is probably strict self policing by farmers. Organic fraud by a few farms injures the organics industry as a whole. Since all organic farmers' profits appear to be intertwined, it is in the monetary interest of all farmers to follow the NOP standards as stringently as possible.

B. Are the Organic Livestock Standards Living Up to Both Farmer and Consumer Expectations?

Whether or not consumers receive the benefits from certified organic meat that they expect to receive depends on the exact benefit the consumers wish to obtain. Potential environmental improvement leads many consumers to purchase organic meat. Livestock produced in an organic system is almost certainly better for the environment than conventional production methods. The lack of chemical fertilizers, wide scale waste disposal systems, and use of other synthetic chemicals makes for substantially less air pollutions and almost no soil or groundwater pollution. Livestock receiving the majority of their food from an organic pasture system can remove thousands of pounds of greenhouse gases from the atmosphere every year. Converting the sixteen million acres currently growing corn used to feed cows to efficiently managed pasture land would result in an additional atmospheric improvement equivalent to taking four million cars off the road. There still remains environmental concern over the massive amount of oil being used to transport the organic meat to the final point of consumption.

50. See Endres, supra note 1, at 36.
51. See Friedland, supra note 44, at 421.
53. See Friedland, supra note 44, at 407.
54. See Pollan, supra note 16, at 182.
55. See id. at 183.
56. Id. at 197.
57. Id. at 198.
takes approximately seven to ten calories of fossil fuel energy to bring one calorie of energy to the American plate. As long as consumers continue to purchase food not locally grown – and there are no indications that most consumers or farmers intend or even want to change current patterns – this problem stands little chance of being remedied.

Consumers frequently state that health concerns lead them to purchase organic meat. Problems may exist with the use of the very term “healthy.” Does the consumer wish to eat meat that contains less fat? Does the consumer intend to avoid ingesting any synthetic chemicals possibly harmful to humans? Livestock raised under organic standards will not intentionally contain any antibiotics or synthetic chemicals. The USDA, however, refused to allow any additional labeling indicating the end product does not contain Genetically Modified Organisms (GMO). The USDA thought any such label implied food containing GMOs is unsafe, and no such evidence exists indicating harm results from GMO consumption.

Organic food can be shown to contain much less pesticide residue and growth hormones, but neither pesticides nor growth hormones have been demonstrated to cause extensive harm to humans. However, the relatively young age of the organic meat industry has not allowed for a long term study to properly determine the true health benefits obtained from organic meat.

One recent survey, questioning the main reason consumers purchase organic meat, found the participants’ purchasing decision frequently fueled by the thought that organic meat is free from any harmful diseases or bacteria and safe overall. Organic standards will not protect against every food-borne disease but will ensure freedom from Bovine Spongiform Encephalopathy (BSE), commonly known as Mad Cow Disease.

60. Id. at 177.
61. See generally Id. at 177-78.
62. See, e.g. 7 C.F.R. § 205.237 (prohibiting use of any chemicals not approved as safe and placed on National List); 7 C.F.R. § 205.670(b).
63. See Friedland, supra note 44, at 416.
64. See id.
65. See Pollan, supra note 16, at 177; see also Kirsten Brandt et al., Food Quality, in ORGANIC AGRICULTURE: A GLOBAL PERSPECTIVE 305, 317 [hereinafter Brandt et al.] (listing reasons studies involving organically produced food have not detected discernable health benefits).
66. See Brandt et al., supra note 67, at 317.
67. See Rocha & Varsi, supra note 26, at 10.
feeding slaughterhouse remains of various animals to cattle. BSE will not occur under organic standards because the feed given to the livestock must be organically certified and, thus, may not contain any animal byproducts.

Recent surveys, however, indicate that not all consumers are even entirely sure what benefits they want to gain from purchasing organic food. In a survey conducted by Whole Foods, one of the world’s largest sellers of organically labeled food, the majority of consumers did not know conventional food contains antibiotics and hormones potentially harmful to humans. When alerted to the potential ill effects of these chemicals, sixty percent of those surveyed then wanted organically certified meat to be free of antibiotics and hormones.

The same survey results indicated only thirty seven percent of organic consumers wanted the organic livestock standards to ensure humane animal conditions. Only thirty percent of those surveyed expressed the desire for organic standards to ensure a humane slaughter. Others suggest that animals are “sentient” beings with strong emotional as well as physical needs, but the USDA chose not to adopt this viewpoint. The NOP organic standards regulating livestock production recognize the immense burden farmers might face if they are forced to cater to the animals’ emotional as well as physical needs. It must be remembered that above all farmers are producing livestock to make money and must do so in a manner making profit realistic. Worrying too much about the total feelings of livestock detracts too much from this main goal. The NOP correctly balances the animals’ overall welfare and needs with the need to maintain a viable and profitable market for farmers. Thus, almost all antibiotics – even those not yet found to be harmful to humans – are prohibited because antibiotics are dangerous to the organic system even at the expense of individual animals. Further, true animal welfare cannot come from a mere set of standards

68. See generally Myers, supra note 13, at 104-106 (providing an overview of the reasons cattle acquire BSE).
69. 7 C.F.R. § 205.238.
70. See Rocha & Varsi, supra note 26, at 9-10 (citing survey conducted by Whole Foods).
71. See id.
72. See id. at 10.
73. See id.
74. See Lund, supra note 19, at 187.
75. See id. at 189. See 7 C.F.R. § 205.238.
76. See § 205.238.
alone. There must be sound management and advanced farmer training.

Some farmers and consumers may complain because the USDA policies seem to treat organic farming exclusively as a business and neglect the many potential positive benefits aside from profit. This view is substantiated by the fact the NOP is at its core a marketing statute. The NOP is not a statement about quality or nutrition, but is in fact a label meant to facilitate trade. Upon the USDA's first attempt to create an organic certification system, former secretary, Dan Glickman, explicitly stated organic "is not a statement about food safety, nor is 'organic' a value judgment about nutrition or quality. For consumers, the organic standards offer another choice in the marketplace." To maintain the meaning and integrity of the organic label it is important that the label actually contain standards that live up to consumer expectations. The USDA, however, purposely designed the NOP to regulate the process of producing organic food not the end quality. There is no mandatory testing for antibiotics, growth hormones, synthetic chemicals, supplements or other potential pollutants to the quality of the meat. The farmers and certifying agents are not doing anything wrong by following the NOP regulations, but the regulations themselves define organic to mean something other than what most consumers think it means. Livestock farmers can benefit more by simply following the standards in place, even with consumer misconceptions. Pointing out any potential flaws in the system ultimately hurts the farmers bottom-line. This is somewhat at odds with the idea of the NOP mainly serving as a marketing statute. Consumers are expecting to pay between a ten to twenty percent premium for organically certified meat; they should be getting the product they expect.

The most beneficial long-term strategy for both farmers and consumers is one of education. One of consumers' main reasons for not purchasing organic meat is a lack of information and understanding of the potential benefits. A program of continued educa-

77. See Horning, supra note 35, at 155.
78. See id.
79. USDA Foreign Agricultural Service, supra note 11, at 16.
80. See Vaarst et al., supra note 14, at 1.
81. See generally 7 C.F.R. § 205.660 (describing in detail the various certification enforcement regulations).
82. See Freidland, supra note 44, at 405.
83. Int'l Trade Centre, supra note 541, at 19.
84. Carolyn Dimitri & Lydia Oberholtzer, EU and U.S. Organic Markets Face Strong Demand Under Different Policies, AMBER WAVES, Feb., 2006,
tion and easily available information could increase customer awareness of what is, and what is not, a real benefit of organic meat, and promote the continued growth of the organic meat market. On the other hand, the NOP is more than adequate for most farmers to achieve their desired results. If the goal is to maximize profits, the wording of the NOP clearly makes achieving this goal realistic. If a farmer’s goal is to maximize environmental benefits and animal welfare, there is nothing in the NOP regulations that prevent a farmer from providing the livestock with better conditions.85

C. Issues Directly Related to Animal Production

This article next addresses specific problems encountered by farmers raising organically-certified livestock. Farmers face difficult choices choosing the proper feed, breeds, housing and disease control methods. The initial conversion process to organic livestock production is expensive.86 Costs can come from project planning, technology development, losses during the conversion process, and training. It is essential for farmers to formulate a long-term plan if they wish to be successful.

1. Breeding

Successful organic livestock production begins with choosing the breed best suited to achieving the goals of the farmer. Organically raised livestock production occurs in much different conditions than conventional livestock production—meaning different breeds of animal are best suited to maximize production potential than most farmers are accustomed.


The animals typically used in conventional livestock production are bred to produce the maximum amount of meat in the shortest period of time. These breeds require tremendous amounts of feed to fulfill their genetic potential. Acquiring that much certified organic feed could be cost prohibitive for organic farmers and may not even be available for the farmers that can afford it. When these breeds do not receive the optimal amount of food, the animals are left feeling hungry and can develop behavioral problems, like feather pecking in chickens. Even if the proper amount of organic feed can be obtained, the most commonly used breeds of livestock can still develop other problems. The most widely used breed of broiler chicken reaches full slaughter size in only seven weeks. The chicken grows so fast that it often suffers leg failure. This is not a problem in the conventional production system because the chickens are housed in cages, but special consideration must be given to organic systems requiring the chickens to be able to roam freely.

Many farmers do not breed animals on site, but purchase the livestock from breeding companies. This poses a problem since many breeding companies only breed conventional animals. Since the market is relatively small and only starting to grow, large scale breeding farms have only just started to develop what would be consider a breed properly suited for organic systems. Further, natural breeding methods are preferred in organic systems. However, artificial insemination, which is still allowed under NOP standards, proves to be the superior method in terms of disease prevention and elimination of potential deformities. Farmers can maximize profits and efficient production by learning to breed animals on site and choosing which breed traits are best suited for their particular farm.

88. See id.
89. See id. (noting the world hunger problem for humans).
90. See id. at 158.
92. Id.
93. See 7 C.F.R. § 205.239; see also Horning, supra note 35, at 161.
94. Id. at 157.
95. Id.
96. Id. at 162 (noting that big poultry breeding companies will not develop an organic breed in the short term because the organic market is too small for them).
97. Id.
98. See generally 7 C.F.R. §§ 205.1-205.35 (providing no limitation on artificial insemination).
The NOP currently does not provide any requirements for choosing specific breeds, although such a regulation may be helpful in preventing the breed-specific problems previously discussed. Organic livestock production systems, however, are very different on every farm so it would be impractical to propose suggested breeding goals for every situation. Some breeds may be better suited for production methods that are predominantly outdoors while some breeds may be better for animals that will be raised mostly indoors. There often must be a trade-off in “productivity” when breeds are chosen to maximize disease prevention and “hardiness” for local conditions. Years of intense antibiotic use may have been merely hiding genetic weaknesses in some breeds. This can cause problems once the antibiotics are removed from the equation and may result in some poor production yields until the best breeds for organic production in a particular region can be discovered. Organic livestock farmers need to share information with other farmers in similar environmental conditions about the breeds that are most efficient. As the organic meat market matures, farmers will be able to gain knowledge about the best breeds and achieve maximum results in the shortest period possible. It will be unrealistic and possibly unhelpful for the NOP to propose any regulations specifying the particular breeds to be used in organic livestock production.

2. Living Conditions and Feeding Requirements

The NOP required livestock living conditions:

(a) The producer of an organic livestock operation must establish and maintain livestock living conditions, which accommodate the health and natural behavior of animals, including:

(1) Access to the outdoors, shade, shelter, exercise areas, fresh air, and direct sunlight suitable to the species, its stage of production, the climate, and the environment;

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100. See generally 7 C.F.R. §§ 205.1-205.35.
101. See infra note 91.
103. Id. at 157
105. Id.
(2) Access to pasture for ruminants

The NOP clearly specifies accommodations must be made for animals “natural behavior,” which might lead some to believe cows, having evolved to eat grass, would be able to in fact graze on grass in a pasture. The NOP merely states, however, that farmers must provide ruminants the extremely vague and not clearly defined “access to pasture.” An official government statement explained “access” meant merely providing the animal with an “opportunity to exit any barn or enclosed structure.” The requirement does not mean the entire herd must have access at once, nor does it set forth any standards on total size of the pasture or even the amount of time the animals may spend outside. Farmers are left to decide for themselves just how much room to provide the livestock. Nothing prevents farmers pressed for space from providing the livestock with a tiny jail-style courtyard and severely limiting the time outside. On one organic farm, about 20,000 chickens had access to a small outside area “not nearly big enough” to accommodate all of them. Even if the chickens did go outside, they might quickly destroy the grass through over consumption and poisonous manure. Luckily for the farmers, there is little chance of this actually happening. The chickens are slaughtered at seven weeks and this two-week window with “access” to the outside makes the option less of a “lifestyle” and more of a “two-week vacation option.”

106. 7 C.F.R § 205.239.
109. Id.
110. Id.
111. See Pollan, supra note 16, at 171-172.
112. Id.
113. Id. at 172.
114. Id. at 210.
115. Id. at 172.
117. Id.
118. Id.
Ideal housing designs for organic livestock production suggest feeding barriers be created to prevent unfair competition for food. The concept of feeding barriers contradicts the idea of allowing for natural behavior, nevertheless, because competition for food occurs in nature. The farmers in charge of feeding the livestock, however, will want to ensure that there is no competition and that all animals receive the necessary amount of food as organic feed can cost up to three times the cost of normal feed. Feeding livestock organic feed grown on-site lowers costs, but additional problems are created by the extra room then required to both grow the feed and house the animals.

Raising the animals in an organically certified grazing system is a simple, fully NOP compatible solution to problems of both housing and feeding livestock. Grazing systems are often the most efficient means of producing organic livestock due to the minimal inputs and relatively low labor required. The pasture where the animals are grazing must first be certified as organic. To become certified the farmer needs to provide maps and also a history of the crops grown and the methods used to grow such crops on the pasture. There also may need to be a “buffer zone” if there are pesticides or chemicals in use in nearby areas. Some farmers may see the “buffer zone” as a waste of space, but pesticides can easily seep into the groundwater and remain present, contaminating the grass and water the livestock will eat and drink. The farmer may be operating at a loss during the initial planning and conversion process to certified organic grazing, but due to the lack of chemical inputs or purchasing of seeds, the pasture method of feeding can prove more cost effective in the long run. On a truly efficient system animals can feed on plant wastes as they do in the wild.

Raising livestock in an organic grazing system provides additional benefits beyond monetary considerations and easily satisfying organic housing conditions. Feeding cattle with grass produces beef with a consistency and taste that is preferred by organic meat con-

119. Horning, supra note 34, at 152.
121. Veterinary Practices, supra note 18, at 175.
122. 7 C.F.R. § 205.237.
124. Id.
125. Pollan, supra note 16, at 149.
sumers. On the other hand, traditional grain-fed cattle show more signs of marbling,\textsuperscript{126} which consumers traditionally value more.\textsuperscript{127} Organic consumers, however, seem to prefer the leaner beef resulting from a grass-fed diet.\textsuperscript{128} Grass-fed cattle, even those not organically certified, will be leaner than those fed with organically certified grain because the type of feed an animal consumes affects the final product, not whether or not the feed is organic.\textsuperscript{129}

In grazing systems, farmers must pay careful attention to the quality of the grass. The grass is the key to the food chain and the fuel for the growth and health of everything in that system.\textsuperscript{130} If the farmer allows for overgrazing, the pasture will deteriorate over time, eventually turning into an infertile desert.\textsuperscript{131} Undergrazing can also lead to problems and a lack of productivity.\textsuperscript{132} When the system is managed right, however, grass will flourish, providing ample cheap feed, and the overall quality of the land will improve as well.\textsuperscript{133} Close supervision must be paid to all aspects of the pasture system to ensure the greatest results. The optimal amount of supervision required does not actually necessitate more labor, but instead calls for advanced knowledge. Thorough education and training must be given to farmers to achieve maximum pasture efficiency. Also, this knowledge must be customized to the local conditions and even the local breeds of grass.\textsuperscript{134} In grazing systems, the waste created by the cattle is maximized, as well, and used as fertilizer. Both money and space can then be saved because there is no need for the advanced, high tech, energy-inefficient and often environmentally-harmful waste disposal system used in conventional systems. Chickens added to the grazing system provide a viable function by eating harmful insects and other parasites that are found in the cow manure that may harm the other animals.\textsuperscript{135} The chicken clean-up crew complements the idea there is no real waste in nature and “one creature’s waste becomes another creature’s lunch.”\textsuperscript{136} As long as the different animals are properly rotated between different pasture areas at dif-

\begin{itemize}
\item \textsuperscript{126} Rocha & Varsi, \textit{supra} note 26, at 3, 17.
\item \textsuperscript{127} Id.
\item \textsuperscript{128} Id.
\item \textsuperscript{129} See Pollan, \textit{supra} note 16, at 177.
\item \textsuperscript{130} Id. at 188.
\item \textsuperscript{131} Id. at 190.
\item \textsuperscript{132} Id. at 191.
\item \textsuperscript{133} See Pollan, \textit{supra} note 16, at 191.
\item \textsuperscript{134} See id.
\item \textsuperscript{135} See id. at 211.
\item \textsuperscript{136} Id. at 214
\end{itemize}
ferent times, the use of space is being maximized and farmers are essentially getting double the profits from the same area. Therefore, raising livestock in an efficiently maintained organic grazing system can maximize profits even on farms without extensive amounts of land.

3. Organic Livestock Health Maintenance and Disease Prevention

Animal health is one of the most beneficial and challenging areas of certified organic livestock production. Unlike conventional style farming systems, good health in organic livestock production requires a focus on disease prevention instead of disease treatment. Optimal disease prevention combines many of the previously discussed issues. Farmers need to concentrate on good grazing management, allowing animals to exhibit natural behavior, and carefully choose breeds that thrive in the environment where production is taking place. Farmers must also be aware of all potential outside influences. Salmonella can remain for up to one year in outside pasture areas. Therefore, it is important that organically raised livestock do not use the same pasture or same housing areas as conventional animals that may spread salmonella or other parasites, and farmers need to avoid the introduction of possible disease carrying conventional animals into an organic system. Some studies, though, demonstrate positive news for organic farmers, finding a mostly grass based diet leads to increased animal resistance of zoonotic pathogens, like salmonella. In order to be truly effective farmers must develop a comprehensive disease prevention strategy that extends to all areas of a farm; especially for farms containing both organic and conventional systems. Farmers must also work to ensure that the livestock do not acquire any diseases during transport to an organically certified slaughterhouse.

The NOP also states a farmer may not:

Withhold medical treatment from a sick animal in an effort to preserve its organic status. All appropriate medications must be used to restore

137. See Veterinary Practices, supra note 18, at 248.
138. See infra Part II.C1-2.
139. See Veterinary Practices, supra note 18, at 248.
140. See Animal Health, supra note 21, at 179.
141. See Veterinary Practices, supra note 18, at 263.
142. Id. at 272.
143. See Brandt et al., supra note 62, at 311.
144. See Veterinary Practices, supra note 18, at 272.
145. See Animal Health, supra note 21, at 180.
an animal to health when methods acceptable to organic production fail. Livestock treated with a prohibited substance must be clearly identified and shall not be sold, labeled, or represented as organically produced.\textsuperscript{146}

This regulation presents a problem to farmers raising an exclusively organic livestock herd. There is now a question over what to do with the newly non-organic animal. The farmer now cannot make any money selling this animal; sending one animal to a slaughterhouse does not make any economic sense. Keeping the animal alive is an inefficient use of resources. It may make more sense, and also can arguably be in accord with promoting natural living conditions, to just quarantine the animal and risk the potential of death. In nature animals are left to fend for themselves. Natural selection then serves to eliminate the weakest animals.

Guaranteeing a truly disease free organic livestock system requires close supervision from farmers. Even though there are claims that current U.S. organic farming standards favor large farmers, the amount of individual attention and close scrutiny required to fully maximize production may make organic farming truly suitable for the small scale farmer.\textsuperscript{147}

\section*{III. The Massive Certified Organic Livestock Production Potential of Brazil}

“Brazil is among the countries that will dictate the pace and global growth of the agriculture industry over the next decade.”\textsuperscript{148}

The next section of this article will focus on the opportunities and obstacles facing Brazil’s ability to increase farming revenues and improve environmental conditions by focusing on certified organic production. Solutions will be put forth to work around the potential pitfalls. Recommendations will also be made for public policy choices to achieve this goal and suggestions for small-scale farmers to also participate in this exciting growth opportunity.

\subsection*{A. Framework for Brazilian Organic Livestock Production}

Total foreign sales of Brazilian agribusiness reached $16.5 billion during the first four months of 2007 alone.\textsuperscript{149} This includes a

\begin{footnotesize}
\begin{enumerate}
\item 7 C.F.R. § 205.238(c)(7).
\item See Pollan, supra note 16, at 221.
\end{enumerate}
\end{footnotesize}
67.4% increase of imports to the Middle East, a 34.95% increase to the E.U. and a 33.4% increase to Africa.\textsuperscript{150} Beginning in 2004, Brazil became the world’s leading exporter of beef and poultry.\textsuperscript{151} Brazil’s poultry exports account for forty-one percent of the global trade,\textsuperscript{152} and revenue from poultry exports reached $3.5 billion in 2005.\textsuperscript{153} Brazil’s pork exports account for fifteen percent of the global trade.\textsuperscript{154} As of 2004, Brazil also raised the world’s largest cattle herd,\textsuperscript{155} with sales of exported beef totaling $2.9 billion between January and August of 2007, and total volume of beef reaching 1.77 million metric tons for the same period, 14.6% increase over the same period in 2006.\textsuperscript{156} The U.S. accounted for over 106,000 tons of processed beef, worth $194 million, during this period.\textsuperscript{157} Internal demand for meat within Brazil continues to rise due to an increase in the population’s disposable income.\textsuperscript{158}

A favorable climate, strong domestic feed supply and inexpensive resources all contribute to the success of the Brazilian livestock production industry.\textsuperscript{159} During the past thirty years, Brazil’s agricultural segment is among the world’s fastest growing due to a variety of factors including increased economic stability, heavy agricultural technology investing, widely available government credit for farmers, ample land and other natural resources, and cheap labor.\textsuperscript{160} As a

\begin{itemize}
\item Abreu & dos Santos Guimaraes, \textit{supra} note 12.
\item Id.
\item Constanza Valdes, \textit{Brazil Emerges As Major Force in Global Meat Markets}, \textit{Amber Waves}, April 2006, \textit{available at} http://www.ers.usda.gov/AmberWaves/ April06/pdfs/BrazilFindingApril06.pdf [hereinafter Valdes].
\item Id.
\item Valdes, \textit{supra} note 156.
\item See Clint Peck, \textit{What is Brazil’s Threat?}, \textit{BEEF MAGAZINE}, May 1, 2004, http://beefmagazine.com/mag/beef_brazils_threat/index.html [hereinafter Peck] (stating the total amount of cattle heads in Brazil is estimated at between 165-170 million compared to only 97 million in the U.S.).
\item Id.
\item \textit{supra} note 158.
\item Fabio R. Chaddad & Marcos S. Jank, \textit{The Evolution of Agricultural Policy and Agribusiness Development in Brazil}, \textit{CHOICES}, 2006 at 85, 85, \textit{available at}
result of heavy investment in agriculture research and technology, Brazil is considered the owner of some of the most “modern and productive agricultural technology” in the world.\(^{161}\) Total livestock production can be expanded to meet consumer demand and also keep environmental damage to a minimum.\(^{162}\) Brazil still has over ninety million hectares of untouched and fertile farmland.\(^{163}\) Certified organic livestock could easily be introduced into this farmland.\(^{164}\) Brazil already possesses the large affordable labor force necessary for proper organic production.\(^{165}\) Plus, organic farming may be especially helpful for livestock production in drought prone and the semi arid areas in northeast Brazil.\(^{166}\)

Only four percent of Brazil’s massive cattle population is raised in conventional style North American feedlots.\(^{167}\) These common production settings fall into accord with NOP standards – minus official certification – by using natural grass as feed and avoiding the use of synthetic chemicals, antibiotics and growth hormones. Many of these non-certified organic style farms, however, are in poor areas and have no direct access to the export destinations. Additional government spending may be necessary to enable all sizes of Brazilian farms to take advantage of the organic market. Brazil’s already massive farming system, coupled with livestock production conditions already very similar to those required by the NOP, place Brazil in a unique position to capitalize on the exploding demand for certi-
fied organic meat. Exporters can then expect to receive on average a ten to twenty percent premium for organic meat.  

B. Brazilian Efforts to Directly Increase Exports

A profitable organic trade requires work on both the production and marketing segments. Farmers need to establish a relationship with an import company in the destination country. Two of Brazil’s biggest beef production companies, Bertin and Friboi, established partnerships directly with importers and now sell beef directly to the supermarkets and other final destinations, lowering costs for all parties. The Brazilian Beef Industry and Exporters Association (Abiec) also works towards increasing export demand by staging international promotion of Brazilian beef. Abiec conducted promotional barbeques in various countries introducing potential customers to Brazilian beef and even going so far as to teach the customers how to cook the beef. Efforts like these have added value to Brazilian-produced beef and increased the overall demand. Promotion and partnerships will prove to be effective with all types of meat, not just beef, and also both organic and conventional styles of production. In the end, this leads to more money for all sized Brazilian farmers.

Recent proactive approaches in international trade policy play an increasingly large role in Brazil’s continued strong growth of the agricultural trade. This includes eliminating of tariffs and non-tariff barriers, and seeking to lower typically high agricultural tariffs in target countries, like the U.S., and members of the EU, for poultry, beef and pork products. The Brazilian government also took charge in bringing to the WTO and then settling several potentially

169. See id. at 3.
170. See id.
172. Id.
173. See id.
174. See OECD, supra note 167, at 1, 4-5 (noting benefits of Brazil engaging in more open trade policies); see also Warren Giles, Brazil Files Broadest Attack on U.S. Farm Aid at WTO, BLOOMBERG, July 12, 2007, http://www.bloomberg.com/apps/news?pid=20601086&refer=latin_america&sid=aBNp5NAUW98g (last visited Nov. 2, 2008); see generally Brazil and the WTO, Dispute Cases Involving Brazil, http://www.wto.org/english/thewto_e/countries_e/brazil_e.htm (last visited Nov. 2, 2008) (listing the various trade dispute cases Brazil has brought before the WTO).
disruptive disputes. These efforts are expected to give organic livestock farmers access to a little over two billion new customers. Brazil has only recently entered the market in China, selling poultry and pork products, and is expected to gain full access to the US, India and Mexico markets within ten years as well.

While, the Brazilian government has been aiding in promoting global trade, its agenda is often at odds with itself. Brazil uniquely possesses two distinct governmental agricultural divisions: the Minister of Agrarian Development (MDA), helping serve small family farms and the Minister of Agriculture, Livestock and Food Supply (MAPA), aiming to help mainly the 2.2% of farms that own approximately 56.5% of all land. The goals of these two agencies often come into conflict. At a recent WTO meeting, the MDA argued for direct subsidies and forms of import control, while the MAPA argued for greater market access for all countries. While the MDA may believe its actions truly help smaller farmers, arguing for greater import barriers and paying more subsidies to small farmers will come at a global price. Export market access may then be restricted for all imports and in the long term hurt Brazil’s place as a global leader in agricultural development.

Brazil faces several other internal restrictions on global trade such as a volatile exchange rate, poor infrastructure, and decrease of government spending on food safety and plant and animal inspection. Animal health services, research and infrastructure improvements, all necessary to sustain continued growth in all segments of Brazilian agriculture, receive less and less public funding over time. Brazil already provides a relatively low level of support to agriculture – which includes research, education and infrastructure – averaging $2.7 billion between 2002-2004, or only 0.5% of GDP. About half of the support to the agriculture sector currently

175. See Chaddad & Jank, supra note 165; see also Dispute Settlement: Dispute DS267, United States – Subsidies on Upland Cotton, http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds267_e.htm (last visited Nov. 2, 2008) (providing entire history of landmark complaint entered and won by Brazil against United States direct subsidy aid to cotton farmers).
177. Id.
179. Id.
180. Id.
181. Id.
182. Id.
183. See Chaddad & Jank, supra note 165.
184. OECD, supra note 167, at 3.
goes towards debt restructuring and preferential credit, potentially limiting support to more productive areas, like infrastructure improvement.\footnote{Id. at 4; Only 10% of the highways in Brazil are paved. See id. at 5.} In fact, weak rural infrastructure may be the greatest problem to agriculture development and an increase in organic exports. Brazil must be careful to continue and eventually increase support toward crucial areas like research and training, both extremely useful for educating farmers on the benefits of organic certification and demonstrating how to convert their operations to satisfy required conditions.

Continued increase in exports and growth in total available export markets depends on an improvement of disease control and the implementation of increased sanitary controls.\footnote{Valdes, supra note 156.} Recent BSE outbreaks in the North America left Friboi, one of Brazil’s largest organic beef farmers, expecting sales of organic beef to triple in 2006.\footnote{Ahmed El Amin, Organic Meat Market Growth Sparks Supply Shortage, MEAT PROCESS, July 13, 2006, http://www.meatprocess.com/news/ng.asp?n=69130-organic-meat-pork (last visited Nov. 2, 2008).}

Globally, Australian beef exports are worth more than Brazilian beef exports, despite trailing in total volume, because the Australian beef penetrates higher valued premium markets.\footnote{See Livestock and Poultry, supra note 164, at 14.} Brazil needs to achieve globally recognized Foot and Mouth disease-free production in order to gain access to much of the premium markets, such as the U.S.\footnote{See id.} By 2005, the Office of International Epizootics expected all cattle in Brazil to be vaccinated against Foot and Mouth disease.\footnote{Peck, supra note 160.} This initial estimate proved overly optimistic, however, and Brazil now hopes to eradicate instances of Foot and Mouth disease by 2009.\footnote{Farmers Guardian, Brazil Begins FMD Vaccinations, http://www.farmersguardian.com/story.asp?sectioncode=1&storycode=9398 (last visited Nov. 2, 2008).} Brazil finally demonstrating to the world that its livestock are largely disease free will open the door to billions of dollars of potential export markets. Currently North America bans the import of all but processed Brazilian beef.\footnote{Valdes, supra note 156 (describing market banning the import of fresh, chilled, and frozen Brazilian beef).} Recent actions taken by the EU indicate the pressing need to ensure the rest of the world recognizes
Brazilian livestock as disease free. Meeting global health standard as soon as possible is needed to ensure the continued growth of the market. Brazil’s exports are even vulnerable – both positively and negatively – to disease outbreaks in other parts of the world. A 2006 avian flu outbreak in Europe and Asia cost Brazil’s poultry exports $120 million.

Encouraging and aiding farms to switch to organically produced livestock may be one way to assuage the world’s concerns over food safety. Brazil’s government must also continue to spend money on agricultural programs that help farms of all sizes. Organic education programs and infrastructure improvements should be two main areas of funding. Infrastructure improvements should be geared at providing increased access to organically certified slaughterhouses and increasing the efficiency of those slaughterhouses. A lack of organic slaughterhouses in the U.S. is a major reason U.S. imports most of its organic meat, and Brazil should look to take advantage of this fact. Bringing animals to a certified organic slaughterhouse in the U.S. adds as much cost as one dollar per pound for beef or pork and two dollars for every pound of ham or bacon. By providing government funding to create organic certified slaughterhouses and increasing the ease and frequency of farmer access to these slaughterhouses, Brazil will help to rectify this potential problem.

C. Current Organics Situation in Brazil and Methods to Assist Farmers Achieve Organic Certification

Estimations place the number of families currently practicing organic farming in Brazil at about 15,000. Brazil ranks sixth in

193. On Jan 30, 2008 the EU announced it enacted a ban on the importation of all Brazilian beef products. This move occurred after EU officials claimed that Brazilian standards of animal health and traceability failed to meet the EU standards. This latest ban expands on the ban already in place on beef from Brazilian states that have known foot and mouth disease outbreaks. Brazilian officials maintained the ban is a case of favoritism and is unjustified. See Europe Bans Brazilian Beef. Brazil Calls it Protectionism, BRAZIL MAGAZINE, Jan. 30, 2008, http://www.brazzilmag.com/content/view/9094/ (last visited Nov. 2, 2008).
195. See supra note 11.
total area for organic production at 890,000 hectares, behind only the US, Australia, China, Argentina, Italy and Chile. Although seventy percent of all organic food produced in Brazil is exported, the internal market for organics is growing between thirty and fifty percent a year. Continued growth looks very likely as income levels continue to increase.

Limited financial resources and government support tend to limit the ability of farmers in many lower income areas from achieving organic certification. Nonetheless, many opportunities still exist for farmers of all income levels to gain access to the lucrative organics marketplace.

Private organizations, like OrganicsBrasil, help many small farms in Brazil with the conversion to organic farming. The goal of OrganicsBrasil is to promote Brazilian organic products in the international market by bringing together manufacturing and processing companies and organic farmers. OrganicsBrasil helps educate farmers, promote both national and international awareness of Brazilian produced organic products, and defrays the cost of the certification process. OrganicsBrasil is forecast to feature around 100 member companies by 2009. BioFach Latin America 2006, an organic food convention, organized by OrganicsBrasil featured a roundtable held between Brazilian farmers and major foreign buyers, including Whole Foods and Cascadian Farms. The convention featured many major Brazilian companies, even non-OrganicsBrasil members, so more foreign buyers would attend and a greater diversity of products were represented. Last year’s fair was expected to generate around $5 million in income. Organizations like OrganicsBrasil are important because they provide another way for livestock farmers of all sizes to take advantage of organic production.
Farmers can also work together to form a cooperative or group relationship. Large scale organic farms tend to be much more likely to receive contracts when dealing with wholesale organic food distributors like Whole Foods, Wild Oats and Wal-Mart. Costs, such as shipping and administration, are much lower when dealing with only one company, or one centralized decision making entity. A cooperative essentially functions as one large entity, offering its members access to a broader market by providing more products at a lower price due to the increased efficiency in processing, packaging, storage, transportation and other administrative costs. The cooperative can also help its members stay at the cutting edge of organic production methods by sending members to various trade fairs, reading trade journals and sharing suggestions and techniques for increased production methods. Further, cooperatives will be useful helping farmers know they are obtaining fair market price for their organic meat. Cooperatives, however, do not offer farmers an official organic certification. To save costs, farmers may pool their money and certify one large communal pasture area as organic. Farmers, however, must self-regulate the members of the cooperative to ensure that the reputation of the cooperative remains in good standing. The self-regulating may prove difficult, especially if the members of the cooperative are spread over a very large area.

While some farmers may prefer cooperatives because the farmers are left with a larger degree of autonomy, for many small and low-income farmers, an Internal Control System (ICS) is the better option. The ICS obtains an organic certification for all members, enabling even the smallest farmers to access international organic markets.

207. See Int’l Trade Centre, supra note 54, at 3.
208. See id.
209. 
210. See Animal Health, supra note 21, at 180.
The NOP currently allows certification through an ICS. A third party certification agency will randomly inspect members of the ICS. In turn, the certification agency relies on the ICS to ensure that all of its members follow the organic guidelines necessary to obtain the organic certification. This method spreads out the cost of certification to all the members, and all members of the ICS can then obtain the profits from producing certified organic food at only a minimal cost.

One drawback to an ICS, however, is the ICS actually owns the certification as opposed to the individual farmers. The preferable strategy of starting an ICS, requiring the establishment of a legal organization requiring a formal plan, structure and regulations represents another drawback of an ICS. This often highly technical startup method may prove difficult for many rural farmers with little or no education or legal background. An ICS also faces pressure and possible negativity from facing certification enforcement at two different levels. First, all members of the ICS must practice livestock production strictly in accordance with the organic certification guidelines to be prepared in the event of random inspection or the ICS will lose the certification for every single member. Second, any member fraudulently claiming to follow the organic production guidelines creates potential public and private internal negativity and ill will transferable to every member. A strong central regulating authority, with enough resources to properly and frequently audit members, is certainly a sticking point for any ICS.

A Participatory Guarantee System (PGS) also presents farmers with an affordable option to gain the main benefits of organic livestock production. A PGS tends to focus more on farmers’ sustainability and long-term development than overall market compliance. Brazil currently has one such group called Ecovida Net.

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212. See IFOAM, Small Holder Group Certification for Organic Production and Processing, http://www.ifoam.org/press/positions/Small_holder_group_certification.html (last visited Feb. 11, 2008); see also E-mail from Alexis Baden-Mayer, Esq., Washington Representative, Organic Consumers Association (Nov. 13, 2007, 12:45 EST) (on file with author) (explaining the NOP issued reassurance that groups like the NOP are in fact in accord with required certification regulations).
214. See id.
215. See id.
216. See id. at 42.
217. See id. at 34.
Farmers from within the PGS monitor and assist other members, as well as potential members, through peer reviews, advisory reports and other recommendations. Greater emphasis is placed on actually understanding and utilizing the agro-ecosystems rather than merely blindly following a plan put forth by some organization. The PGS does not, however, pay for the cost of certification nor does the PGS pay for the products to enter the market and the food is not sold as a group. The PGS does provide ample opportunity for social networking and the opportunity for farmers to make profits on their own. The use of education and long term economic improvement may make use of a PGS the best method to promote long term growth and sustainability for farmers. On the other hand, problems with costs and other obstacles make the prospect of joining a PGS remote for a great number of Brazilian livestock farmers.

MAPA is currently working with Brazilian farmers, and other key agribusiness leaders, to create a final regulation of Brazil’s organic sector. The federal government introduced Law 10.831/03, acknowledging organic food as a separate sector than conventional food and setting forth areas of organic production requiring formalized regulation. The challenge is to form regulations that are substantially similar to other international standards – to ensure easy export – while slightly altering those standards to be more in line with “tropical and low income” countries such as Brazil. Brazil will best serve potential organic farmers of all sizes by promulgating organic standards that can easily meet the requirements set forth by not just the NOP, but also the EU, Japan, and other foreign markets. Encouraging certification under a variety of organic export requirements can lead to beneficial foreign investments from a variety of regions.

218. Santacoloma, supra note 221, at 33.
219. See id. at 34.
220. See id. at 37.
221. See id. at 43.
222. See id.
of sources. Moreover, Law 10.831/03 wisely recognized the need to “increase investments in research, technical advice, teaching technicians and farmers and inspection on commercialization channels.” An official certification program ultimately must be a product of group efforts on behalf of the state governments and private organizations to create programs for small farmers as well as rural workers with effective social accountability to ensure all Brazil’s citizens can profit from the rapidly growing organic market.

Law 10.831/03 is a step in the right direction for Brazil. While the emphasis on organic certification, with the main purpose of exporting the final product, may increase the options of farmers, especially poor farmers, these policies may lead to a dependence on world markets and do little to contribute to the local markets. Organic food regulations in other countries can guide Brazilian governmental decisions and ensure continued local growth and prosperity. Establishing and promoting a local organic label substantially increases internal organic food sales. The Italian government began promoting a “Buy Italian” label in 2005. Since that time the sale of organic food continues to increase while the percentage of imported food sold continues to decrease.

Directly following successful USDA NOP certification policies is a good idea. The U.S. recognized the need to directly defray the costs occurring during the conversion to certified organic livestock production. During the transition period there is “little revenue and likely no profit.” The loss of income may be too much to bear for the many farmers who rent their farm. In addition, some farmers are on leases requiring a payment calculated as a percentage of their crop yield. In situations such as this, landlords may not want to see such a loss of profit as will happen during the conversion process.

229. Id.
230. Endres, supra note 1, at 31.
231. See id.
232. See id.
233. See id.
Extra revenue must come from somewhere to rectify this situation. Exorbitant interest rates mean taking out private loans is out of the question for almost all Brazilian farmers.234 The United States implemented several successful methods to help farmers during the conversion period. The 2002 Farm Act’s National Organic Certification Cost-Share Program provides funds that will go towards sharing the certification cost of farmers in all states.235 Organic farmers who produce and market only organic products will be allowed an exemption from paying the same U.S. tax assessments as conventional farmers.236 Individual U.S. states do a number of things on their own to aid organic farmers including providing a directory of all certified organic farmers, providing export assistance, and even offering property tax rebates to organic farmers.237 Brazil can also learn from the successful organic regulations and other related policies set forth in the United States maximizing organic livestock production at both the state and the federal level.

Brazil needs to steer clear of paying direct subsidies to organic farmers. Direct payments cause farmers to operate in an unrealistic economic environment, leading to overproduction, artificial price distortion, and an overreliance on the government.238 These factors make long-term independent farmer success a near impossibility.

Providing direct agriculture subsidies may also cast Brazil as hypocritical and ruffle feathers in other major international trade markets.239 During a recent visit to Ghana to discuss agricultural production, Brazilian President LuizInácio Lula da Silva publicly blamed the current global food crisis on farm subsidies.240 He pub-

234. Andre Deak, Average Interest Rate in Brazil: 29%: In the World: 4%, BRAZZIL MAGAZINE, Feb. 23, 2006, available at http://www.brazzilmag.com/content/view/5626/53/ (comparing interest rates around the world with the astronomical rates found in Brazil at 29% compared to a range between 2.8 and 4% elsewhere).


236. Id.


238. Myers, supra note 13, at 196.


240. See World Hunger: Blame It on Farm Subsidies and Oil Prices, Says Brazil, BRAZZIL MAG, April 21, 2008, available at http://www.brazzilmag.com/content/view/9264/.
licly stated, “rich countries should end subsidies to their agricultural production and they should open market access to agricultural produce from the developing world.”\textsuperscript{241} WTO mandated limits on direct subsidies in developed and developing countries are yet another factor making subsidies a poor domestic organic agricultural policy path.\textsuperscript{242}

The best economic incentives for Brazil to provide organic farmers are those policy decisions in accord with the WTO “green box.”\textsuperscript{243} The WTO does not place limits on government funding fitting within the green box as these types of incentives either do not distort trade, or do so only at a bare minimum.\textsuperscript{244} Payments must not be based on total volume of production or domestic or international prices. Luckily for Brazil, the economic incentives most beneficial to organic farmers are almost all in accord with the green box requirements. Future agricultural policies aimed at increasing and maximizing organic livestock production should include ample funding to improve research, disease control and prevention, domestic and international marketing, infrastructure improvements, and farmer training. Brazil can also provide lower property and export tax rates to those farmers found to be in compliance with organic standards. Charging organic livestock farmers lower tax rates, whether it be on energy consumption, capital expenditures, or even exportation, will certainly provide an added incentive for conventional farmers to convert to organic production methods and make the conversion process much more palatable. Placing organically certified products in the same tax-exempt category as sugar and coffee is also a way for Brazil to encourage and aid organic farmers. New and creative tax incentive schedules may, however, result in unforeseen future WTO violations.\textsuperscript{245} Brazil should base some policy decisions in the mold of Switzerland. The Swiss government abolished all direct subsidies and instead provides rewards to farmers

\begin{itemize}
\item \textsuperscript{241} Id.
\item \textsuperscript{243} See id.
\item \textsuperscript{244} Id.
\end{itemize}
based upon the amount of ecologically sustainable measures each farmer practices, with the highest rewards going to organic farmers. With Brazil teetering on an economic scale between developed nations and a leader of developing nations, careful and meticulous analysis must be given to any organic policy decisions so as to not disrupt this balancing act and tip the scale in a fashion detrimental to Brazil and her citizens.

IV. CONCLUSION

Producing livestock in a certified organic system offers many benefits as well as challenges. Farmers must be well informed when choosing to engage in organic production. The certification process is not cheap and cannot be a spur of the moment decision. Seeking public and private assistance best serves the needs of farmers in all parts of the world and on all economic levels. Farmers must carefully balance the traditional goals of organic farming with the conventional farming goals of achieving maximum output.

Now at the forefront of the world’s food trade, Brazil is faced with a unique opportunity. Organic meat is an industry primed for continued explosive growth. Brazilian farmers can benefit from a focused attempt to shift to organic livestock production, perhaps more than farmers in any other country. Switching to organic livestock production will increase farmers’ profits, while providing benefits to the consumer, livestock, and the environment. This phenomenal market opportunity, however, may not be accessible to farmers of all sizes. If Brazil wants to ensure that all its livestock farmers gain access to the international market, the government must take the lead. Financial incentives, to help with the organic conversion process, and indirect aid, in the form of infrastructure improvements, research, and training are necessary expenditures. Yet Brazil needs to remain conservative with the provision of funds. Unwise spending or poor program choice results in merely maintaining the status quo. Giving too much direct financial assistance may rile countries containing large possible export markets and create unnecessary strife and possible sanctions from the WTO. Brazil needs to formalize its organic certification laws to accommodate both internal and external demands and pressures to maximize the profit potential. The end results will benefit Brazil’s long term social, economic and environmental health and prosperity.

246. Myers, supra note 13, at 197.