

**Reform of Local Land Use Laws
To Allow Microlivestock on Urban Homesteads**

A white paper produced by the

Sustainable Land Use Project
of the
Environmental and Natural Resources Program
University of Oregon School of Law¹

March 1, 2010

¹ This White Paper was prepared by Mary Christina Wood, Philip H. Knight Professor of Law and Faculty Director, University of Oregon Environmental and Natural Resources Law Program; Jeremy Pyle, JD Candidate; Naomi Rowden, JD Candidate and ENR Fellow; and Katy Polluconi, JD Candidate and ENR Fellow; in consultation with Heather Brinton, Managing Director, ENR Program. Comments on this White Paper should be submitted to enr@uoregon.edu.

Executive Summary

Over the course of the past half-century, the U.S. food system has become a vast, highly centralized mechanism for growing, importing, and distributing food to households across the country. Concern has mounted in recent years over the system's sustainability due to high rates of pollution, energy use, pesticide use, health risks, as well as the overall decline in the quality of food. In addition, given the thousands of miles that food typically travels through the global marketplace before reaching the consumer, the system's reliance on transportation networks makes it vulnerable to weather-related and other emergencies that affect travel.

As an alternative, many "urban homesteaders" are looking to their own backyards to provide as much food as possible for their own families. In doing so, households are making productive use of their private property to provide a safer, healthier alternative to the conventional food supply, as well as becoming more self-sufficient and more resilient to emergencies and food shortages. Many urban homesteaders feel that they enjoy better tasting food, live life more fully, gain greater nutrition, interact more with neighbors, and provide children a wholesome upbringing connected to nature and its bounty. All of these reasons contribute to a burgeoning nationwide movement.

Part of this urban homesteading effort involves a progression beyond growing plants to cultivating meat and dairy sources as well. Microlivestock such as chickens, ducks, geese, turkeys, quail, pygmy goats, a pig, rabbits, and bees, for example, can provide families with safe, healthy, low-impact sources of food on site. Concerns over noise, odor, and other intrusions on neighboring properties can be sufficiently allayed through education, regulation, and the law against nuisance. Because current code provisions tend to restrict these activities, however, cities responsive to their community's growing interest in urban homesteading must revise their city codes to allow microlivestock on residential lots. This white paper sets forth a model microlivestock ordinance and supporting policy and law analysis. The model code (on p. 66-67) is designed to enable community citizens to make use of their own property in a way that will enhance the quality and safety of their family's food sources, reduce their environmental impact, and help create a more sustainable, food-secure community for all.

Introduction

For the past several decades, Americans have divorced themselves from the ages-old endeavor of growing and harvesting their own food. During the recent era, the food system has experienced radical change from its traditional makeup that predominated even just a few generations ago. Today, global distribution systems deliver food thousands of miles. While increasing convenience and diversity to the consumer, the consolidation and centralization in food production has come at a high cost. The U.S. food system is highly polluting, unsustainable, vulnerable to adversity, and, in some cases, distributes products infected with food-borne bacteria that is harmful or even lethal to the unsuspecting consumer.² For all of these reasons, citizens are urging their local officials to initiate regulatory and policy changes to encourage local food production on both public property and private lots. Eugene, Oregon is one such city. The purpose of this White Paper is to inform changes to the city code to allow more productive “urban homesteading” on residential lots in the city. It focuses in particular on regulations pertaining to husbandry of microlivestock.

Part I summarizes the existing city code. Part II reviews the private property interests and food policy concerns that should inform code revisions. Part III describes the widespread urban homestead movement and discusses various types of micro-livestock that are fast becoming fixtures of the urban homestead. Part IV presents basic policy choices that city officials will confront in crafting revisions to the land use code. It summarizes approaches of other city codes and provides

² See generally MICHAEL POLLAN, *THE OMNIVORE’S DILEMMA: A NATURAL HISTORY OF FOUR MEALS* (2006).

recommendations. Part V offers a draft model code provision to allow a broader array of micro-livestock on urban lots within Eugene.

I. The Eugene City Code

The current code section pertaining to “farm animals,” § 5250, allows only two adult rabbits or fowl (no roosters) over 6 months of age to be kept on lots under 20,000 square feet (1/2 acre) in any residential zone.³ Fowl younger than six months of age are not limited in number; the code is silent, so presumably they are permitted. The code is also silent as to bees, implicitly permitting them on residential lots. The code does not allow goats or pigs (or larger livestock) on lots of less than 20,000 square feet (¼ acre). On lots exceeding that size, however, those animals (along with cows and horses) are permitted, subject to certain restrictions providing minimum space per animal. There is no limit on the number of rabbits and fowl that may be kept on these larger lots.⁴

In practice, the city manages the land use code as a “living code,” a complainant-driven system. It is well-known that many microlivestockers in town raise more than 2 chickens (the formal code limit). If the owner manages the chickens in a sanitary and proper manner, the activity triggers no more perceivable harm than would the keeping of two chickens. The city does not devote “patrolling” enforcement resources to search out violations where there are no complaints. If complaints do arise, the Eugene City Code has ancillary provisions that bear upon the keeping of animals. These include provisions relating to noise (§ 4.083), annoyance (§ 4.430), confinement (§ 4.455), dead animals (§ 4.470), animal abuse

³ Eugene City Code § 9.5250.

⁴ *Id.*

(§ 4.335), animal neglect (§ 4.340), sale of animals (§ 4.485) and nuisance (§ 6.010). These would remain in place under the draft model ordinance.

II. Food Policy and Private Property Interests

As the City of Eugene considers revising its land use codes, several new factors should inform the policy choices. An increasing number of private property owners seek to make productive use of their own backyards to enhance household food security, food safety, sustainability, and self-sufficiency. Such emerging private property interests are compatible with, and reinforce, city initiatives towards local food resilience and sustainability. The following discussion inventories some primary concerns motivating personal food production on private property.

A. Drawbacks of the Present Food System

The current food supply is “tethered to food pipelines that extend around the globe.”⁵ Dependent as it is on far away production areas, the food supply is vulnerable to abrupt shortages. When transportation systems are compromised, food delivery becomes either difficult or impossible. Due to the “on time delivery system” that prevails in the United States, supermarkets have few supplies in their storerooms. Most of their inventory is on the shelves, and during emergencies such provisions can vanish quickly. The average stock of food cities have on hand to provide for their citizens is three day’s worth,⁶ and few households have backup

⁵ THOMAS A. LYSON, *CIVIC AGRICULTURE: RECONNECTING FARM, FOOD, AND COMMUNITY* 5 (University Press of New England 2004).

⁶ See ABBY VINCENT ET. AL., *INSTITUTE FOR GLOBAL AND COMMUNITY RESILIENCE, ISSUES IN EMERGENCY FOOD DISTRIBUTION FOR WHATCOM COUNTY, WA* 13 (2008), http://www.wvu.edu/resilience/Publications/EM_Food_Whatcom-IGCR_08.pdf.

stocks of any significant quantity. The Red Cross only recommends enough food for 72 hours, which equates to six cans of food per person.⁷

Like virtually all communities in the United States, Eugene depends heavily on imported food products produced far away, in climates and soils non-native to the locality.⁸ Existing food supply chains typically contain few or no locally produced products.⁹ In Eugene, for example, only 5 percent of the food consumed is produced locally either through local farm markets or home gardens, despite the abundance of farmland in close proximity.¹⁰ Harvested at distant farms (often in Mexico, China, Brazil, or New Zealand), agricultural products are then transported for processing and packaging at another location, and then transported again to large wholesale distribution centers. From there, the packaged foods are shipped to retail stores located near urban areas where consumers purchase them and transport them home. Studies have shown that the average purchased fresh food item has traveled from 1300 to 2000 miles to reach the dinner plate, requiring large amounts of energy to reach most consumers.¹¹

Because of long-distance transport, as well as the machinery, fertilizers, pesticides, fuel, and other goods used in large-scale agricultural production, food production is the fourth largest consumer of energy in the U.S.¹² The fuel necessary for producing a given food product often greatly exceeds the caloric content of the

⁷ *Id.* at 16.

⁸ Lyson, *supra* note 5, at 4.

⁹ *Id.* at 5.

¹⁰ VINCENT ET AL., *supra* note 6, at 14.

¹¹ LAUREN MAUL, LANE COUNTY FOOD COALITION, LANE COUNTY FOOD SYSTEM ASSESSMENT REPORT: A COMPILATION OF FINDINGS AND SUGGESTIONS FOR FUTURE RESEARCH 18 (2003).

¹² JOHN HENDRICKSON, UNIVERSITY OF WISCONSIN-MADISON, ENERGY USE IN THE FOOD SYSTEM: A SUMMARY OF EXISTING RESEARCH AND ANALYSIS (1996).

food. One source estimates an input of 10 kilocalories (kcal) of fossil fuel energy for every one kcal of food energy produced.¹³ Moreover, long-distance transport requires elaborate packaging and often refrigeration, both of which are highly consumptive. Packaging must then be dealt with by municipalities at the consumer end, either through garbage or recycling.

The far-flung transportation infrastructure involved in this food system makes it vulnerable to severe weather events and other natural disasters. For example, when a severe windstorm hit Whatcom County, Washington in 2006, transportation along I-5 was interrupted, resulting in depleted food stocks. A report analyzing the event concludes: “An emergency that reduce[s] outside replenishment via transportation links such as the Interstate 5 corridor, may result in bare grocery store shelves within 1-3 days and even quicker depletion of emergency food provisions for food insecure individuals.”¹⁴ Not only are transportation channels for food distribution compromised by weather-related emergencies, but crops themselves are vulnerable to damage. In 1988, a severe heat wave wreaked havoc on the U.S. agricultural industry, causing over \$60 billion worth of losses.¹⁵ Losses of grain and corn yields may contribute in the future to higher costs of meat and dairy products. Many urban homesteaders seek to address these concerns on a personal level in ways that will make the community as a whole more secure and

¹³ Robert S. Lawrence, Director, Center for a Livable Future, Johns Hopkins Bloomberg School of Public Health, Presentation: *Peak Oil and Health: Impacts on Food and Agriculture* (Mar. 12, 2009), available at http://www.jhsph.edu/bin/o/q/Lawrence_Handouts.pdf. A calorie is the amount of energy required to raise the temperature of one kilogram of water one degree Celsius. A kilocalorie refers to one thousand-gram calories.

¹⁴ VINCENT ET. AL, *supra* note 6, at 4.

¹⁵ TOM ROSS & NEAL LOTT, U.S. DEP’T OF COMMERCE, NAT’L OCEANIC AND ATMOSPHERIC ADMIN., A CLIMATOLOGY OF 1980-2003 EXTREME WEATHER AND CLIMATE EVENTS 6 (2003).

households more resilient in face of such emergencies and rising costs.

B. Public and Individual Health Benefits of Local Food

Public health and individual benefits of a more local food system go beyond avoiding risk exposure. There is increasing evidence that growing one's own food provides major physical, psychological and social benefits through increased intake of healthy foods like fruits and vegetables, greater physical activity and social interaction, and exposure to "greenspace" in urban areas.¹⁶ Furthermore, food that is cultivated locally or in the backyard often has a higher nutritional quality compared to food produced conventionally. This is true because production methods, post-harvest handling, processing, packaging, and transportation of conventionally grown produce all contribute to nutrient loss.¹⁷ The same kind of benefit also applies to locally cultivated meat. For example, poultry that are fed a portion of grass instead of an all-grain diet and given access to the outdoors will produce healthier meat and eggs, with higher levels of Omega-3 fatty acids, beta carotene, and conjugated linoleic acid (CLA), all of which help fight cholesterol, diabetes, high blood pressure, and cancer.¹⁸

Many families gravitate to local scale food production for these positive reasons, as well as to avoid negative factors associated with the industrialized food system. As recent food recalls demonstrate, the system is vulnerable to food-borne

¹⁶ Jonathan R. Leake et. al., *Health Benefits of 'Grow Your Own' Food in Urban Areas*, 8 ENV. HEALTH Supp. 1 (2009), <http://www.ehjournal.net/content/8/S1/S6>.

¹⁷ Harvard Medical School, Center for Health and the Global Environment, *'Is Local More Nutritious?' It Depends*, http://chge.med.harvard.edu/programs/food/documents/local_nutrition.pdf.

¹⁸ American Grassfed Association, *Frequently Asked Questions*, <http://www.americangrassfed.org/frequently-asked-questions/#4>.

disease outbreak.¹⁹ In recent years, E. Coli-infected food has forced massive recalls of products containing peanuts, pistachios, meat, spinach, tomatoes, lettuce, and others. (By contrast, disease outbreaks in locally produced food systems are more isolated and therefore more contained.) In addition to food-borne disease, there is harm from toxins that lace conventional foods. EPA notes that “most of the foods we eat have been grown with the use of pesticides[, which] may be present inside or on the surfaces of these foods.”²⁰ The health hazards posed by pesticides include birth defects, nerve damage, and cancer, as well as endocrine disruption in humans, that causes a range of reproductive problems, brain and behavior abnormalities, immune system function, and various cancers.²¹ Children are at even greater risk of pesticide exposure because their organs and immune system are underdeveloped and lack the same level of protection that adults do.²² Besides accumulating pesticides, many dairy and meat also products contain antibiotics and growth hormones, both linked to adverse health effects.²³ These serious concerns have prompted many to seek healthier alternatives for providing food for their families.

C. Family Economic Security and Freedom in Food Choice

Many urban homeowners turn to their own backyards for food cultivation to provide a buffer against hard financial times as well. Home food production is now

¹⁹ A. Bryan Endres & Jody M. Endres, *Homeland Security Planning: What Victory Gardens and Fidel Castro Can Teach Us in Preparing for Food Crises in the United States*, 64 FOOD & DRUG L.J. 405, 408 (2009).

²⁰ U.S. Environmental Protection Agency, Pesticides: Topical & Chemical Fact Sheets, Assessing Health Risks from Pesticides, <http://www.epa.gov/pesticides/factsheets/riskassess.htm>.

²¹ U.S. Environmental Protection Agency, Pesticides: Topical & Chemical Fact Sheets, Protecting Children from Pesticides, <http://www.epa.gov/pesticides/factsheets/kidpesticide.htm>.

²² *Id.*

²³ Organic Consumers Association, *EU Scientists Confirm Health Risks of Growth Hormones in Meat*, ASSOCIATED PRESS (Apr. 23, 2002), <http://www.organicconsumers.org/toxic/hormone042302.cfm>.

recognized as an important economic endeavor. In her book, *Depletion and Abundance*, author Sharon Astyk notes the importance of a “domestic economy” for family security in the face of an increasingly tenuous market economy.²⁴ During 2008, 12.4 percent of Oregon households experienced food insecurity.²⁵ As food prices and unemployment rise, more households can be expected to pursue home food production for this reason.²⁶

Some urban homesteaders are also motivated by a desire to take responsibility for producing much of what they eat. As author Michael Pollen notes in *The Omnivore’s Dilemma*, the industrialized meat and dairy industry imposes deplorable conditions on animals raised for food. Moreover, factory farms holding thousands of pigs and dairy cows pollute valleys and waterways with appalling amounts of manure, as thoroughly documented in David Kirby’s book, *Animal Factory*. Responsible animal husbandry on private property is a viable alternative. As stated in the popular book, *The Urban Homestead: Your Guide to Self-Sufficient Living in the Heart of the City*: “We are confident that in the coming years urban livestock is going to become more and more common, because the current situation with our food is just untenable. . . . If you raise and slaughter your own meat you’ll

²⁴ SHARON ASTYK, *DEPLETION AND ABUNDANCE* (New Society Publishers 2008); *see also* SHARON ASTYK & AARON NEWTON, *A NATION OF FARMERS: DEFEATING THE FOOD CRISIS* 39 (New Society Publishers 2009) (“It is easy in our vast agricultural system to imagine that someone will always produce what is needed and make sure we get it. But as we’ve seen, that system has already begun to fall apart. Americans simply don’t fully grasp the relationship between farming and food in any meaningful sense.”).

²⁵ OREGON HUNGER RELIEF TASK FORCE (citing USDA statistics), <http://oregonhunger.org/the-problem.html>.

²⁶ ANNE C. BELLOWS, KATHERINE BROWN & JAC SMITH, COMMUNITY FOOD SECURITY COALITION, *HEALTH BENEFITS OF URBAN AGRICULTURE* (2003), <http://www.foodsecurity.org/pubs.html#healthurbanag>.

know the animal was raised in the best conditions imaginable—with air and sunlight and stimulation and healthy food.”²⁷

Nationwide, the urban farming potential is great, as the grass lawns surrounding residences in the United States cover some 18 million acres.²⁸ In Eugene, there is a flourishing Victory Garden movement, modeled after the WWII Victory Garden strategy, that has generated hundreds of new gardens across Eugene’s major neighborhoods, including low-income ones. Homeowners are planting gardens and mini-orchards, raising chickens, and finding other ways to make productive use of their land to enhance their family food security and broaden food choice. The broad interest in “urban homesteading” has produced a plethora of books, articles, websites, organizations, and other resources to encourage family self-sufficiency. Enormous leveraging opportunities (and public resource savings) exist by lifting restrictions for food production on the private land base already available, making use of the cadre of landowners eager to put their back yards to this use.

Meat and dairy food are both core parts of the American diet, yet there is no adequate and affordable local commercial food supply source to meet these nutritional demands. For example, there are virtually no local chicken producers aside from a few small family farms, which price their chickens out of the affordable range for most families (approximately \$20-27/per chicken). There is no local

²⁷ KELLY COYNE & ERIK KNUTZEN, *THE URBAN HOMESTEAD: YOUR GUIDE TO SELF-SUFFICIENT LIVING IN THE HEART OF THE CITY* 132-33 (Process 2008).

²⁸ LESTER R. BROWN, *PLAN B 4.0: MOBILIZING TO SAVE CIVILIZATION* (W.W. Norton & Co. 2009).

organic dairy. The nearest dairy, Noris Dairy, operates out of Crabtree, Oregon, east of Albany.

Average homeowners can meet nearly all of their meat and dairy nutritional needs by maintaining microlivestock that are now recognized accoutrements of the full-fledged urban homestead.²⁹ Options include raising chickens, ducks, geese, turkeys, quail, rabbits, pygmy goats, and bees, and even fattening (or “finishing”) a pig for a few months out of the year. While some cities in the Pacific Northwest allow various types of microlivestock, the current Eugene City Code presently is too restrictive to allow meaningful individual choice and animal husbandry.

Reforming the code to allow a broad variety of microlivestock would advance many city policies, without the expenditure of public revenue, simply by leveraging landowner initiative. Given the myriad benefits of local food production, a city policy that allows people to make productive use of their property in this manner falls squarely within the traditional values of American property law.

D. A New Balancing Test for Uses of Private Property

The municipal land use code determines what uses an owner can make of his or her property. Governed by policy choices that reflect the overriding needs of the community, it must be a dynamic set of rules that responds to change. The most basic duty of city government, exercised through its land use authority, is to provide for the essential welfare of the citizens.

The primary reason that land use codes are unduly restrictive as to animal husbandry is that they are still geared towards maintaining a sharp distinction

²⁹ See, e.g., Coyne, *supra* n. 27, and *infra*, section III).

between rural and urban life. Cities have generally prohibited microlivestock because they are considered “farm animals.” An individual who wanted such an animal would have to buy a farm. That notion, however, runs counter to the growing interest of citizens in making full use of their privately owned property to provide for healthy food and family self-sufficiency.

The urban homesteading movement breaks down distinctions between farm and city life, drawing both individual and community value from productive use of property within city borders.³⁰ A new set of microlivestock breeds (such as pygmy goats) provides opportunities for creating farm value on backyard lots without intrusion to neighbors. Accordingly, city officials nationwide are revising their land use codes to lift restrictions on urban microlivestock.

Such code reform remains compatible with the nuisance framework that imbues land use codes. A nuisance is a “substantial and unreasonable interference with the use or enjoyment of land.”³¹ Determining whether a nuisance exists requires a balancing test between potentially conflicting property uses. It precludes only activities that cause “substantial harm,” and even then restricts the use only if the social utility of the activity does not outweigh its harm.³² In that manner, nuisance law has always sought to promote productive use of property.

³⁰ See Susan Orlean, *The It Bird*, THE NEW YORKER (Sep. 28, 2009); CARLEEN MADIGAN, THE BACKYARD HOMESTEAD (Storey Publishing 2009); see also Urban Homesteading, <http://www.urbanhomesteading.com/> (last visited Feb. 7, 2010).

³¹ Joseph Singer, PROPERTY LAW: RULES, POLICIES, AND PRACTICES 271 (Aspen 4th ed. 2006).

³² *Id.* at 271 (“[N]uisance is a substantial and unreasonable interference with the plaintiff’s use and enjoyment of his property.” (citation omitted)); *id.* at 278 (“The *Restatement (Second) of Torts* §826(a) defines land use as ‘unreasonable’ when the ‘gravity of the harm outweighs the utility of the actor’s conduct.’”).

Needless to say, property owners have no legitimate expectation to a perfect existence of their own design. Neighbors do cause constant irritations of one sort or another, whether it is loud stereos, barking dogs, annoying wind chimes, or smelly tobacco smoke. But these intrusions generally do not rise to the level of harm that justifies a regulatory prohibition. The same guiding principle should inform city officials in revising land use codes. New uses of property invoked by modern concerns should be prohibited only if they rise to the level of “substantial harm” to neighbors, and only if such uses are not justified by the social value of the action.

In the case of raising microlivestock within city boundaries, there is generally no “substantial harm” caused to neighboring properties, as discussed in the following sections. As the popular book, *The Integral Urban House*, explains:

Most municipal ordinances restricting livestock were made to protect urbanites from the smell, noise, flies, and general nuisance-causing behavior associated with farm animals in the city that are managed as if they were still on the farm. Systems must be constructed that allow small livestock to be raised compatibly with these urban sensibilities.³³

An increasing array of urban homestead books and websites provide information on strategies that attains compatibility between food production and neighborhood concerns. Where there is the possibility of substantial harm through noise, odor, or sanitation, existing general code provisions provide ample authority to city officials to step in and abate the activity. Property owners also have other remedies such as filing a nuisance lawsuit in court.

³³ HELGA OLKOWSKI ET.AL., *THE INTEGRAL URBAN HOUSE: SELF RELIANT LIVING IN THE CITY* 252 (New Catalyst 2008).

Applying the classic nuisance test to various types of microlivestock husbandry, the social utility side of the equation has changed markedly in recent times. In view of the concerns iterated above, there is heightened value on urban homesteading as an important endeavor for community food security and sustainability. The many co-benefits of raising diverse sources of food on urban homesteads also weigh heavily in the balance. These include public health benefits, lower packaging, a reduced public recycling burden, pollution-free and antibiotic-free food choices, responsible husbandry of animals, and in many cases, enhanced neighborhood community. Shifting appropriately to reflect the changing conditions of society, the “social utility” balancing test generally supports use of urban private property for microlivestock.

Revising the land use code to expand such use of private property, of course, will have tradeoffs. Some homeowners will undoubtedly object. But the objections of a few must be analyzed carefully to determine if they are truly suffering “substantial harm” and even if so, whether such impacts warrant abandoning the strategy of urban food production to create a more secure, resilient community for all. A private property owner does not have the right to exact the regulatory arm of local government for every irritation, or to find a remedy for the cultural change towards self-sufficiency. In any event, the objections of one homeowner must be balanced against the rights of the other homeowner to make productive use of his or her private property. Nevertheless, the city must have in place basic safeguards against excessive noise, disruption, smell, or disease caused by raising any animals within city limits. Recommendations along these lines are set forth below.

E. Summary

In sum, protecting the private property rights of local citizens to make productive use of their property can be an important part of any municipal strategy to meet community sustainability and resilience objectives.³⁴ Local governments can capitalize on private property owners' energy and innovation to promote food security, healthier outcomes, and family self-sufficiency. To do so, however, cities will have to revise land use codes to allow a broader array of home food production, including husbandry of microlivestock.

Such code revisions should be treated with some urgency, as there is a significant lag time between the regulatory change and the production of food on urban homesteads. Families and households must create the necessary infrastructure, educate themselves on care and feeding, allocate time for the ongoing effort, and wait until spring for a crop of animals to purchase. A regulatory change should be accomplished as soon as possible to begin the process of building crucial husbandry expertise within the various neighborhoods of Eugene.

III. Urban Homesteading and Micro-livestock

Urban homesteading is spreading rapidly in the United States, part of a worldwide movement known as re-localization that seeks to build local resilience on several different fronts. Many new books popularize and provide resources for the effort of transforming the urban or suburban yard into a food-producing lot. For

³⁴ Modern food policy should be aimed at other areas as well. Public places and schools should be utilized to the maximum extent possible to create edible landscaping and community gardens. Local small-scale commercial food production should be incentivized. This includes encouraging the development of small chicken farms and dairies, as well as inducing farmers to produce important staple crops of high protein beans, grains, and edible seeds. This is the focus of Willamette Valley's Bean and Grain project (*see* <http://www.mudcitypress.com/beanandgrain.html>).

example, *The Urban Homestead* and *The Backyard Homestead* provide excellent resource manuals for the homestead enterprise. *Farm City* provides a narrative of a couple engaged in urban homesteading in an impoverished area of Oakland, California.³⁵ Their inspiring approach takes hold in a neighborhood gripped with crime and poverty. An older book, *The Integral Urban Homestead*, provides a detailed manual of animal husbandry. In addition, books and materials from the World War II Vintage provide instruction on chicken and rabbit husbandry. A growing array of popular websites and blogs promote urban-homesteading. One site, *Path to Freedom*, features a family that produces fruits and vegetables, honey, goat milk, cheese, and eggs on its .10-acre property in Pasadena, California.³⁶ Also indicative of the popularity of this “back to the land” strategy within city limits is the explosive growth of backyard chickens nationwide. As a *New Yorker* article observes, urban chicken raising is now a “movement across North America.”³⁷

As urban homesteading spreads, new local industries spring up to provide resources and infrastructure. Local craftsman in the Willamette Valley, for example, now provide chicken coops and rabbit hutches. Local garden shops and nurseries now stock a wide variety of fruit trees and other food producing plants, and also offer training sessions and other resources for the urban farmer.

Micro-livestock provides an important food-producing component of the urban homestead. As the leading book, *The Backyard Homestead*, notes, “[t]he final step in completing a backyard homestead is the addition of animals for milk and

³⁵ NOVELLA CARPENTER, *FARM CITY: THE EDUCATION OF AN URBAN FARMER* (Penguin Press HC 2009).

³⁶ *Path to Freedom: The Original Modern Urban Homestead*, <http://www.pathtofreedom.com/> (last visited Feb. 7, 2010).

³⁷ Orlean, *supra* n. 30, at 5.

meat.” As indicated by many books and websites on the subject, micro-livestock appropriate for the typical residential urban city lot include: chickens, ducks, turkeys, geese, quail, rabbits, pygmy goats, pigs, and bees.³⁸ Managed together, the variety of species interacts to provide closed-loop production processes and synergies that build on Nature’s own relationships. For example, rabbits and chickens produce fertilizer for the garden, the garden produces vegetables for the family, the vegetable scraps provide food for the chickens, and the chickens produce eggs. As many authors observe, animals are an integral part of the garden because they provide pest control and fertilizer. The discussion below addresses common micro-livestock accessories of the urban homestead. There are examples of city ordinances around the nation that allow for some or all of these, subject to various restrictions or conditions discussed in Section IV.

A. Chickens

1. Homestead and community value

Perhaps no form of micro-livestock is as popular on the urban homestead as the backyard chicken.³⁹ Chickens are raised in virtually every region across America, from the high-density apartments of New York City, to the backyards of Eugene, Oregon, to the row houses of San Francisco, and everywhere in between.

One of the primary benefits to chickens is the food they yield. In this regard, people either raise them for eggs, or meat, or both. For those who use both chicken eggs and meat, the “layer” hens form the permanent fixture on the property, and the “fryers/broilers” are harvested between two and three months of age. The food

³⁸ Guinea pigs are sometimes included as well.

³⁹ Orlean, *supra* n. 30.

yield provides considerable economic security for the urban family as well as a healthy, humane alternative to the industrial factory farms that raise chickens under appalling conditions. As Michael Pollan exposes in his *tour de force*, *Omnivore's Dilemma*, even the "organic" chickens produced by large corporate farms don't see the light of day. An American household that wants fresh eggs and responsibly raised, organic chicken meat can find few choices in the marketplace. Backyard chicken production is very much a return to the past American tradition. In WWII, government appealed to homeowners nationally to raise their own chickens for food security. This prompted the now-classic book, *Chicken Raising Made Easy*, by Paul Chapman (1943).

A chicken lays an average of 200 eggs a year. Thus, to obtain an average of four eggs a day, slightly more than two-dozen a week, one needs a flock of seven or eight hens.⁴⁰ An egg-producing flock does not need a rooster. Raising chickens for meat requires additional chickens. There are two options in this regard. One can buy a number of baby chicks that are already "sexed" so as to exclude the roosters, or one can continuously breed flocks themselves, but that requires a rooster. Since roosters have noise concerns and are banned by many cities (including Eugene), the most sensible land use approach for the time being is to support larger young flocks that are raised at one time, or spaced by a couple of months. Day-old chicks are generally available only for a two-month time period in the spring, so the chicken meat production must begin during that time. Two or three flocks could be raised,

⁴⁰ OLKOWSKI, *supra* n. 33, at 281.

separated by several weeks within the overall window of time that chicks are available.

Chickens have important benefits aside from food production. They are excellent insect, weed, and slug predators, helping to obviate the need for commercial slug bait, pesticides, and herbicides. They can efficiently use kitchen waste scraps.⁴¹ Chicken manure serves as marvelous fertilizer (and is sold commercially for this purpose) and can be handled in a manner (such as the “deep litter system”) that both assures sanitation and maximizes the nutrient-giving capacity.⁴² Chickens provide a natural “tilling” effect on garden beds by their scratch behavior and are notorious for transforming hardened beds into rich, light soils. Chickens are also highly entertaining and accessible to children.⁴³ A child’s first notion of where food comes from may derive from the experience of collecting an egg from a backyard coop.

2. Care and Space

Chickens require a secure coop for shelter. This is typically a simple structure made from available materials. There are countless designs for such coops in books and on the Internet. The space needs for a chicken are minimal, about four square feet per chicken.⁴⁴ In terms of food, chickens forage for insects, eat kitchen scraps, and devour weeds. Much of their feed thus comes from natural

⁴¹ OLKOWSKI, *supra* n. 33, at 252.

⁴² *See id.* at 253-57.

⁴³ Jes Burns, *Metro Chickens: Backyard Flocks in the City* (April 30, 2007), <http://www.culinate.com/articles/features/Metro+chickens?page=0&pageSize=1> (last visited Feb. 7, 2010).

⁴⁴ OLKOWSKI, *supra* n. 33, at 289.

sources or waste. They are fed grains as well. One can purchase organic, locally grown and milled grains from Eugene Local Foods.

3. Management concerns

There are very few management concerns with hens. They cause very little noise aside from a proud cackle at the time they lay an egg. Chickens do not escape easily if confined in a fence (and their wings can be clipped painlessly for extra assurance in that regard). Chickens are not dangerous or harmful to humans in any manner. A small flock is not generally prone to disease. When chickens and their wastes are properly managed on the urban homestead, there is virtually no odor or fly problem.⁴⁵

4. Resources

Carleen Madigan, ed., *The Backyard Homestead* (Storey Publishing 2009).

Gail Damerow, *Storey's Guide to Raising Chickens: Care, Feeding, Facilities* (Storey Publishing 1995).

Helga Olkowski, Bill Olkowski, Tom Javits, and the Farallones Institute, *The Integral Urban House: Self-Reliant Living in the City* (New Catalyst Books 2008).

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 133-151 (Process 2008).

Paul W. Chapman, *Chicken Raising Made Easy* (Macmillan 1943).

Bucky Buckaw's Backyard Chicken Broadcast, The Sagebrush Variety Show, available at <http://www.radioboise.org/sagebrush/bucky/> (last visited Feb. 7, 2010).

Path to Freedom: The Original Modern Urban Homestead, <http://www.pathtofreedom.com/> (last visited Feb. 7, 2010).

⁴⁵ See OLKOWSKI, *supra* n. 33, at 252 (“[I]f [chicken] systems are properly designed and maintained they will not produce problems with smells, noise or flies.”).

B. Ducks and Geese

1. Homestead and community value

Many cities, including Eugene, allow backyard ducks and geese. Ducks are prized for both meat and eggs. There are many varieties of ducks available. Of these, the Muscovy is one of the most popular choices for meat, as it has 30% less fat than other ducks,⁴⁶ and its meat is flavorful and tender, often compared to roast beef.⁴⁷ The Muscovy male is the largest species of duck, attaining 12 lbs.⁴⁸ It is fast-growing and can be harvested at 3-4 months of age.⁴⁹ Geese mature to 18-26 pounds, depending on the breed, and provide delicious meat which is often served on holidays. As a source of red-like meat, ducks and geese can be a sustainable substitute for corn-fed beef, the production of which causes enormous greenhouse gas emissions.

Ducks and geese have other characteristics that enhance the urban homestead. They feed on pests, such as insects, snails, and slugs. San Francisco once had a “rent-a-duck” service that loaned Muscovies to gardeners.”⁵⁰ Muscovy ducks in particular are famous for their mosquito control, an ability that gains increasing importance in view of West Nile Virus and other mosquito-borne disease.⁵¹ Their waste can be composted and makes excellent fertilizer. Geese are used as weeders on commercial farms, because of their proclivity to leave

⁴⁶ Salmon Creek Ranch, *Muscovy Duckling*, <http://www.salmoncreekranch.com/muscovy.html> (last visited Feb. 7, 2010).

⁴⁷ Wikipedia, *Muscovy Duck*, http://en.wikipedia.org/wiki/Muscovy_Duck (last visited Feb. 7, 2010).

⁴⁸ MADIGAN, *supra* n. 30, at 250.

⁴⁹ See, e.g. Salmon Creek Ranch, *supra* n. 46; Zainal Abidin Md Noor, *Duck Meat Production*, <http://www.jphpk.gov.my/English/Broiler%20duck.htm> (last visited Feb. 7, 2010).

⁵⁰ MADIGAN, *supra* n. 30, at 246.

⁵¹ *Id.* at 246.

established plants alone and favor young shoots.⁵² Their feathers can be used to stuff jackets, pillows, and comforters, and can also be used for tying fishing flies.

2. Care and Space

As noted in *The Backyard Homestead*, keeping ducks and geese is a “relatively simple proposition.”⁵³ They require a fence to protect them from predators and to keep them enclosed. They forage much of their own food. Supplemental, locally produced and milled duck grain is available from Eugene Local Foods. Housing needs for ducks and geese are minimal. A small, but secure, duck/goose house gives protection from predators, and should allow 2-6 square feet per bird.⁵⁴ Contrary to popular myth, ducks do not need a pond, though many species enjoy water.⁵⁵ A simple portable baby pool is suitable, and Muscovies in particular do well without water (they are an entirely different species from most domestic ducks).⁵⁶

3. Management concerns

Ducks have no unique management concerns apart from other fowl. Properly managed, they do not intrude on neighborhood values. The only concern particular to ducks is, perhaps, the quacking. In this regard as well, the Muscovy duck is highly preferable to other species. Called the “quackless” duck, Muscovies make much less noise than other varieties and are therefore preferable for the urban setting.⁵⁷ While aging males take on a musk-like odor,⁵⁸ this is not a concern

⁵² *Id.* at 250.

⁵³ *Id.*

⁵⁴ COYNE, *supra* n. 27, at 153.

⁵⁵ MADIGAN, *supra* n. 30, at 246.

⁵⁶ COYNE, *supra* n. 27, at 152.

⁵⁷ MADIGAN, *supra* n. 30, at 249.

⁵⁸ *Id.*

for a young male flock raised for meat purposes, because harvest generally occurs at four months.⁵⁹

Geese have potentially greater concerns, because they make noise through honking. They can also fly over the fence if their wings are not clipped. They often hiss around people, causing fright in some.⁶⁰ Nevertheless, they remain “spanking clean” on their own (when provided with water to wash themselves) and are recommended for the urban homestead.⁶¹ Noise concerns are unlikely to exceed that of a dog, and in any event, anti-noise provisions of the local code should be sufficient to protect neighbors against any lasting intrusion. Containment within a suitable fence is assured by clipping wings, a painless routine for many types of fowl.

4. Resources

Carleen Madigan, ed., *The Backyard Homestead* 246-256 (Storey Publishing 2009).

David Holderread, *Storey's Guide to Raising Ducks: Breeds, Care, Health* (Storey 2000).

David Walbert, *Raising Ducks*, *The New Agrarian*, available at <http://www.newagrarian.com/category/ducks/>.

Feathersite, *Ducks*, at <http://www.feathersite.com/Poultry/Ducks/BRKDucks.html>.

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 151-153 (Process 2008).

Leonard Mercia, *Storey's Guide to Raising Poultry: Breeds, Care, Health* (Storey 2002).

C. Turkeys

1. Homestead and community value

⁵⁹ Noor, *supra* n. 49.

⁶⁰ MADIGAN, *supra* n. 30, at 246-7.

⁶¹ *Id.* at 247.

Turkeys are marvelous accessories to the urban homestead. As *The Backyard Homestead* notes, turkeys are not difficult to raise and are appropriate for the backyard.⁶² Barbara Kingsolver praises the benefits of turkeys in her popular book, *Animal, Vegetable, Miracle*.⁶³ Turkeys provide several functions. First and foremost, they are a traditional holiday food: 270 million turkeys are consumed as part of holiday demand in the United States and Canada.⁶⁴ Yet nearly all of these turkeys are raised on industrial factory farms run by three multinational corporations.⁶⁵ They are raised in confined and deplorable conditions, subjected to inhumane treatment at every stage of life.⁶⁶ They feed on corn that is laced with antibiotics, and their flesh is so bland that the final meat is injected with a saline solution and various enhancement oils to augment taste.⁶⁷ They bear no real resemblance to the wild turkey native to North America -- the “energetic, tasty bird that struck our ancestors as the perfect centerpiece for an American holiday.”⁶⁸ The urban homesteader who raises his or her own turkeys can ensure a healthy, well-raised,

⁶² *Id.* at 240-42.

⁶³ BARBARA KINGSOLVER, *ANIMAL, VEGETABLE, MIRACLE: A YEAR OF FOOD LIFE* (Harper Collins 2007).

⁶⁴ See Patrick Martins, *About a Bird*, N.Y. TIMES (Nov. 24, 2003), <http://www.nytimes.com/2003/11/24/opinion/about-a-bird.html?pagewanted=1> (last visited Feb. 7, 2010).

⁶⁵ MADIGAN, *supra* n. 30, at 240.

⁶⁶ See Martins, *supra* n. 64, describing a standard commercial turkey:

It probably hatched in an incubator on a huge farm, most likely in the Midwest or the South. Its life went downhill from there. A few days after hatching -- in the first of many unnatural if not necessarily painful indignities -- it had its upper beak and toenails snipped off. . . . [I]t will do nothing but gorge on the highly fortified corn-based mash that it is offered, even though that is far removed from the varied diet of insects, grass and seeds turkeys prefer. . . . [In] the crowded conditions of industrial production, mature turkeys are prone to picking at the feathers of their neighbors -- and even cannibalizing them.

⁶⁷ *Id.*

⁶⁸ *Id.*

and humanely taken meal.⁶⁹ He or she can chose among endangered heritage varieties that carry on the ceremonial tradition of this country's Thanksgiving holiday: these famously provide "dark, rich and succulent meat" for the table.⁷⁰

Second, the turkey provides valuable insect and slug control in the garden.⁷¹ All ages of turkeys eat insects, consuming large quantities during the summer. This natural food source makes efficient use of ecology and lowers the need for imported grain on the urban homestead.⁷² The turkey droppings provide valuable fertilizer to the garden, and the feathers are sought after for tying fishing flies.

Third, apart from the insect control, there is broad community value in small-scale production of heritage turkeys. As explained in-depth in Kingsolver's book and more summarily in *The Backyard Homestead*, the commercial corporate breeders of turkeys propagate only one strain, the Broad Breasted White, which can no longer breed naturally.⁷³ As one *New York Times* commentator notes, this threatens "[t]he future of the turkey as we know it . . ."⁷⁴ Other strains, known as heritage varieties, were developed in the 1700s and are robust and flavorful. But they are endangered now, because there is no market for them. Food advocates urge small farmers and urban homesteaders to participate in an effort to revive these varieties by raising them in backyards and on small farms. As *The Backyard*

⁶⁹ MADIGAN, *supra* n. 30, at 240 ("By choosing to raise your own turkey for the holidays, you can ensure that your family is eating a quality bird that was raised well and slaughtered humanely.").

⁷⁰ Martins, *supra* n. 64, at 2.

⁷¹ See Pam Maynard, *Raising Chickens and Poultry for Home Pest Control*, http://www.ca.uky.edu/smallflocks/Factsheets/Raising_chickens_and_poultry_for_home_pest-control.pdf; see also MADIGAN, *supra* n. 31 at 240.

⁷² *How to Raise Turkeys: The Essential Beginners Guide to Raising Turkeys*, <http://www.howtoraiseturkeys.com/4-reasons-why-you-should-start-raising-turkeys.html> (last visited Feb. 9, 2010).

⁷³ MADIGAN, *supra* n. 30, at 240.

⁷⁴ Martins, *supra* n. 64.

Homestead notes, “By choosing to raise a heritage variety, you can play a part in continuing the market demand for endangered birds to be kept in production.”⁷⁵

2. Care and Space

There are many heritage varieties available for purchase including: Bourbon Red, Standard Bronze, Narragansett, Jersey Buff, Slate, Black Spanish, White Holland, Royal Palm, Midget White, and Beltsville Small White.⁷⁶ The homesteader can purchase days-old poults and raise them to harvest age, which is at about 4-6 months of age.⁷⁷ The timing of turkey-raising can greatly benefit the garden and minimize the impacts to neighbors. By buying poults in May or early June,⁷⁸ a homesteader can benefit from the intense foraging capabilities of the turkeys (for insect and slug control) when the summer and fall garden is in full swing, and then harvest them (freezing if necessary) at the holiday time when they reach six months of age.⁷⁹

Turkey poults have a higher natural die-off rate than chickens and require special care when very young. They should be kept separate from chickens and need separate housing. However, such housing is minimal. A small farmer’s flock of

⁷⁵ MADIGAN, *supra* n. 30, at 240. *See also* Martins, *supra* n. 64:

It's for this reason that maintaining genetic diversity within any species is crucial to a secure and sustainable food supply. Sadly for the turkey and for us, the rise of the Broad Breasted White means that dozens of other turkey varieties, including the Bourbon Red, Narragansett and Jersey Buff, have been pushed to the brink of extinction because there is no longer a market for them.

⁷⁶ *What is a Heritage Turkey?* Heritage Turkey Foundation, <http://heritageturkeyfoundation.org/> (last visited Feb. 8, 2010); MADIGAN, *supra* n. 31 at 240-42; Troy Griepentrog, *Why the Midget White Turkey is the Perfect Homestead Turkey*, Mother Earth News (August 21, 2008), <http://www.motherearthnews.com/Sustainable-Farming/Perfect-Homestead-Turkey.aspx> (last visited Feb. 7, 2010).

⁷⁷ MADIGAN, *supra* n. 30, at 243.

⁷⁸ *Id.* at 242 (“Starting poults at that time enables you to grow them to the desired market weights just prior to the traditional holiday season, when the demand for turkey is strongest.”).

⁷⁹ *Id.* at 243.

turkeys (20-30) needs a simple brooder house of about 100 square feet, perhaps with an additional 80 square-foot pen; thus a much smaller flock of four turkeys appropriate for the backyard requires substantially less space.⁸⁰

3. Management concerns

The Backyard Homestead advises that noise, odor, and fly-away problems are associated with turkeys.⁸¹ However, these concerns are diminished with a very small flock, and the benefits of even a few turkeys in the garden seemingly far exceeds the drawbacks. A turkey that controls insects and slugs, thereby obviating the need for pesticides, will benefit the neighbors and community children in terms of lower toxic exposure. Fly-away problems, also described in the book *Farm City*, may be avoided by clipping wings, a painless process commonly used by flock owners to contain their birds.⁸² Moreover, younger birds have far fewer concerns than adult birds. Meat birds are generally harvested no later than six months of age, which means that most of the impacts would be minimal.

4. Resources

Carleen Madigan, ed., *The Backyard Homestead* 240-45 (Storey Publishing 2009).

Heritage Turkey Foundation, <http://heritageturkeyfoundation.org/>.

How to Raise Turkeys: *The Essential Beginners Guide to Raising Turkeys*, <http://www.howtoraiseturkeys.com/4-reasons-why-you-should-start-raising-turkeys.html>.

Leonard Mercia, *Storey's Guide to Raising Turkeys: Breeds, Care, Health* (Storey Publishing, 2nd Ed. 2000).

⁸⁰ Michigan State University Extension, *Want to Raise a Few Turkeys?* (April 21, 2000), <http://web1.msue.msu.edu/imp/modpo/e1259006.html> (last visited Feb. 7, 2010).

⁸¹ MADIGAN, *supra* n. 30, at 242.

⁸² Across the Creek Farm, *Clipping Turkey Wings* (June 15, 2009), <http://acrossthecreekfarm.blogspot.com/2009/06/clipping-turkey-wings-and-pain-in-neck.html> (last visited Feb. 7, 2010).

Michigan State University Extension, *Want to Raise a Few Turkeys?* (April 21, 2000) available at <http://web1.msue.msu.edu/imp/modpo/e1259006.html>.

D. Quail

1. Homestead value

Quail are the smallest of domestic fowl. According to *The Urban Homestead*, they are “reputedly the easiest of all to raise.”⁸³ Quail are a common feature of urban homesteads, as reflected in a plethora of web materials on backyard quail raising. They yield delicious meat and eggs, both prized as delicacies. Because of their small size, a meal for one person might consist of 2-3 quail. Quail are easily bred and hatched at home. They are full grown and ready for harvest by about 6-10 weeks. Thus, the meat birds have a very short (if any) backyard presence. Some people raise quail primarily indoors.

2. Care and space

Quail are raised first in brooders (which are warm boxes for chicks located in the garage or other protected enclosed area); then the breeding and/or egg laying birds are transferred to small backyard cages. Meat birds may also be kept in an outdoor pen for a couple of weeks until harvest. Meat birds require only .75 square feet of enclosed pen space, and breeder birds require 2 square feet of pen space. Quail eat poultry feed and require proper sanitation, as do other types of fowl. They also require protection from predators.

3. Management concerns

⁸³ COYNE, *supra* n. 27, at 156.

Because of their small size, a homesteader can raise several dozen meat quail with virtually no disruption to neighbors. They are not noisy, do not escape their pens, and are not smelly. There are virtually no significant management concerns associated with a backyard quail flock that is kept confined.

4. Resources

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 156 (Process 2008).

The Beginners Guide to Raising Quail, <http://www.howtoraisequail.com/>.

Raising Quail for Food in Fredericton, New Brunswick, Canada, Urban Agriculture Notes, <http://www.cityfarmer.org/quail2.html>.

Allen Easterly, *Raising Quail: A Home Grown Delicacy*, Backwoods Home Magazine, <http://www.backwoodshome.com/articles2/easterly101.html>.

Mississippi Agriculture and Forestry Experiment Station, *Space Needs of Bobwhite Quail*, http://msucares.com/poultry/game/poultry_space.html.

E. Rabbits

1. Homestead value

Rabbits have tremendous value as a source of meat for the urban homestead and have only minimal space, care, and feeding requirements. Backyard rabbit production was a crucial strategy in meeting national food demands during the time of scarcity in WWII. Rabbit meat is notoriously delicious, used often in European, Asian, and Australian cuisine.⁸⁴ It is served in some restaurants in Eugene. It is higher in protein and holds less fat than chicken, turkey, beef, lamb, or pork.⁸⁵ *The Integral Urban House* provides a complete discussion on raising rabbits and recommends keeping one buck and four does (females). As the book notes, “such a

⁸⁴ *Crusader Meat Rabbits*, Commonwealth Scientific and Industrial Research Organization (July 11, 2008), <http://www.csiro.au/science/CrusaderRabbits.html> (last visited Feb. 7, 2010).

⁸⁵ MADIGAN, *supra* n. 30, at 290-91.

herd is small enough to fit into waste spaces around the house.” A doe can have four litters a year. Rabbits are culled at eight weeks of age, yielding fryers of about four pounds.⁸⁶ One buck and four breeding does will yield roughly five pounds of dressed meat each week.⁸⁷ Rabbits also have enormous value for producing waste that is marvelous garden fertilizer.⁸⁸ They yield pelts too, and the Angora species gives a highly desirable soft wool that is obtained four times a year by gently plucking or shearing the animal.⁸⁹

2. Care and Space

Rabbits have very limited space requirements, making them a feasible endeavor for the urban homestead. As *The Integral Urban House* notes, “Rabbits are a very desirable meat animal for urban areas because they are quiet and relatively easy to maintain. Their space requirements are also naturally very small, and they may be housed in cages located in small otherwise wasted spaces around the yard.”⁹⁰ Rabbits need a simple hutch, which can hold the breeding rabbits, along with their offspring. The does and bucks are kept separate. A small outdoor run is not required, but a nice amenity. Rabbits and hutches are available for sale at Coastal Farm Supply. Rabbits require food ration and can eat supplemental scraps from the garden. Rendering and butchering rabbits can be done in a humane, clean, and quick manner. A detailed treatment of harvesting rabbits is provided in *The Integral Urban House*.⁹¹

⁸⁶ *Id.* at 290.

⁸⁷ OLKOWSKI, *supra* n. 33, at 261.

⁸⁸ MADIGAN, *supra* n. 30, at 240.

⁸⁹ Wikipedia, *Angora Wool*, http://en.wikipedia.org/wiki/Angora_wool (last visited Feb. 7, 2010).

⁹⁰ OLKOWSKI, *supra* n. 33, at 261.

⁹¹ *Id.* at 272-8.

3. Management concerns

Properly managed, rabbits give rise to no significant concerns as to odor, noise, or escape potential. In World War II, the federal government reported: “[r]abbits are being raised in every State in the Union. They may be kept in the city backyard as well as on the farm, in fact, wherever poultry raising is permitted.”⁹²

4. Resources

Bob Bennett, *Storey's Guide to Raising Rabbits: Breeds, Care, Facilities* (Storey Publishing, 3rd Ed. 2000).

Carleen Madigan, ed., *The Backyard Homestead* 290-91 (Storey Publishing 2009).

Gail Damerow, *Barnyard in your Backyard*, Storey Publishing (2002).

Helga Olkowski, Bill Olkowski, Tom Javits, and the Farallones Institute, *The Integral Urban House: Self-Reliant Living in the City* 246-79 (New Catalyst Books 2008).

House Rabbit Society, <http://www.rabbit.org/>.

K. Gendron, *The Rabbit Handbook* (Barron Educational Series 2000).

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 154-55 (Process 2008).

F. Pygmy goats

1. Homestead and community value

While average-sized goats require more space than is typically available on urban lots, miniature species such as the African Pygmy Goat or Nigerian Dwarf Goat are ideal for the urban setting and can provide the source of dairy for the urban homestead.⁹³ The Pasadena homestead featured on the *Path to Freedom* website

⁹² See Department of the Interior Information Service, *Wildlife Tips and Briefs* at 6 (August 15, 1942), <http://www.fws.gov/news/historic/1942/19420815.pdf> (last visited Feb. 7, 2010).

⁹³ MADIGAN, *supra* n. 30, at 263.

has pygmy goats used for both milk production and manure.⁹⁴ Urban homesteaders in both Portland and Seattle keep pygmy goats in their backyards.⁹⁵

A typical pygmy goat weighs 35-60 pounds, no more than an average-sized dog.⁹⁶ They are much smaller than their full size counter parts (16-24" in height) and are easy to take care of.⁹⁷ Because of their social nature, it is best to have two pygmy goats rather than one.⁹⁸ Described by the *Backyard Homestead* as producing "delicious milk," no different in taste than cow's milk.⁹⁹ Each pygmy goat can yield 300 quarts of milk per year,¹⁰⁰ or half a gallon of milk per day. Thus, two pygmy goats can easily provide for the full dairy needs of a family of four or five. Children with allergies to milk from dairy cows can often find a rich and pleasing substitute in goat milk. Families can produce all associated dairy products as well, including cheese, butter, and yogurt. Home pasteurizing machines are readily available for sale and easy to use.¹⁰¹ Producing home-grown products avoids the myriad of greenhouse gas emissions caused by the industrial dairy farms. It also saves tremendous packaging and plastic. A family consuming four quarts of commercial yogurt a week, for example, generates waste amounting to 192 plastic containers a year.

⁹⁴ Path to Freedom daily blog <http://urbanhomestead.org/journal/> (last visited Feb. 7, 2010).

⁹⁵ See John Metcalfe, *Let's Goat Crazy!* SEATTLE WEEKLY (Sept. 12, 2007), <http://www.seattleweekly.com/2007-09-12/news/let-s-goat-crazy/> (last visited Feb. 7, 2010); Jim Redden, *Bus-riding Pygmy Goat Finds Its Way Back Home*, Portland Tribune (Oct. 30, 2008) available at http://www.portlandtribune.com/news/story.php?story_id=121251994761290100 (last visited Feb. 7, 2010).

⁹⁶ MADIGAN, *supra* n. 30, at 263.

⁹⁷ See National Pygmy Goat Association (NPGA), *The Pygmy*, http://www.npga-pygmy.com/resources/husbandry/about_thePygmy.asp (last visited Feb. 7, 2010); *NPGA Breed Standard*, <http://www.npga-pygmy.com/resources/conformation/NPGBreedStandard.pdf> (last visited Feb. 7, 2010).

⁹⁸ MADIGAN, *supra* n. 30, at 258.

⁹⁹ *Id.* at 270.

¹⁰⁰ *Id.* at 263.

¹⁰¹ *Id.* at 269.

Pygmy goats provide other benefits as well. Many families keep them as pets instead of dogs.¹⁰² Unlike dogs, goats do not bite out of aggression. Some goats are born without horns, and those that have horns are often debudded by the breeder before sale. Goats are easy to handle and transport in dog kennels.¹⁰³ Their manure is useful for garden fertilizer.¹⁰⁴ They are adept at brush control and provide an alternative to toxic herbicides. They are regularly used in California for vegetative suppression to lower fire risk to residences. Goats can even be used to carry supplies on backpack trips.¹⁰⁵

2. Care and Space

Goats eat a combination of goat ration and hay, both locally available.¹⁰⁶ As noted in *The Backyard Homestead*, goats do not require “elaborate housing.”¹⁰⁷ Miniature goats require only a 10 square-foot shelter, such as an unused shed, that can provide protection from sun, wind, and rain. The miniature goat requires only 130 square feet outdoors. The urban homesteader should plan on having two goats to protect against loneliness.¹⁰⁸ One potential problem with goats is that they are notorious for escaping flimsy enclosures. As *The Backyard Homestead* advises: “You’ll also need sturdy fence – don’t underestimate the ability of a goat to escape

¹⁰² Maxine K. Kinne, *Pygmies for all Reasons*, NPGA, <http://www.npga-pygmy.com/resources/husbandry/allreasons.asp> (last visited Feb. 7, 2010).

¹⁰³ MADIGAN, *supra* n. 30, at 258.

¹⁰⁴ *Id.* at 259.

¹⁰⁵ *Id.* at 258.

¹⁰⁶ Wilco Farm Stores, Springfield, http://www.wilco.coop/Divisions/Farm_Stores/Locations/farm_stores_springfield.asp (last visited Feb. 9, 2010).

¹⁰⁷ MADIGAN, *supra* n. 30, at 258.

¹⁰⁸ *Id.*

over, under, or through an inadequate fence.”¹⁰⁹ But, unlike cats that roam through entire neighborhoods, a proper fence will contain a goat.

Dairy goats must be regularly milked-- generally twice a day, which requires a commitment on the part of the urban homesteader. Missing a milking can put the doe in discomfort and could lead to abscess. A milking station, or “milking parlor,” is easy to devise, and dairy goat suppliers provide milk stands and equipment for this purpose. The investment of time in caring for a goat may make neighborhood partnerships desirable.

3. Management concerns

Contrary to myth, goats are no smellier than dogs, as the *Backyard Homestead* points out. The exception is a buck in breeding season. For this and other reasons, the urban homesteader should keep does, not bucks. Goats, unlike some dogs, are not noisy, though they may bray when in distress. If properly confined within a sturdy fence, goats present no significant concerns for neighbor’s enjoyment of property. They pose no violent tendencies.

4. Resources

Carleen Madigan, ed., *The Backyard Homestead* 258-270 (Storey Publishing 2009).

Goodbye City Life, *Pygmy Goat – Raising and Keeping Goats*,
<http://www.goodbyecitylife.com/animals/pygmy-goat.htm>.

Irvine Mesa Charros 4-H Club, *Goats*, <http://www.goats4h.com/GoatsHome.html>
(scroll down for specific links to information about pygmy goats).

National Pygmy Goat Association, <http://www.npga-pygmy.com/>.

Oregon State University Extension Service, *Dairy Goats*,
<http://extension.oregonstate.edu/catalog/html/ec/ec1439/>.

G. Pigs

¹⁰⁹ *Id.*

1. Homestead and community value

The Backyard Homestead gives a ringing endorsement of raising standard pigs in the backyard. Families can raise a pig during just a few months of the year to “finish” the pig before sending it off-site to a professional facility for rendering and butchering. While the book says that two pigs could be kept on a quarter-acre lot in the city, it recommends a strategy of raising one pig for slaughter in the fall and one in late winter.¹¹⁰ The urban homesteader buys the young “feeder” pig at 40-70 lbs and feeds it during the “grow-out” period, which is anywhere from 90-120 days.¹¹¹ By the end of this “finishing process,” a standard pig might reach 260 pounds, 70% of which is available for meat.¹¹² (The University of Maine Extension Service notes that the ideal butchering weight is 220 pounds, which will yield 140 pounds of retail cuts of fresh and cured pork;¹¹³ the University of New Hampshire Extension Service puts the ideal market weight at 200-250 pounds).¹¹⁴ Two standard pigs can provide pork meat for a family of four for a year.¹¹⁵

Vietnamese Pot-Bellied pigs, though not addressed in the book, are allowed in Seattle and many other cities. They are within the same species as ordinary farm pigs, but are bred to be smaller, thereby requiring less feed and space. They were originally bred in Vietnam for food, but now are sold as pets and treated as such by

¹¹⁰ *Id.* at 289.

¹¹¹ *Id.* at 286-87.

¹¹² *Id.* at 289.

¹¹³ *Raising the Backyard Pig*, University of Maine Cooperative Extension, <http://www.umext.maine.edu/piscataquis/feedpig.htm> (last visited Feb. 7, 2010).

¹¹⁴ *Raising Pigs at Home*, University of New Hampshire Cooperative Extension, <http://extension.unh.edu/agric/AGDLEP/docs/pigraise.pdf> (last visited Feb. 7, 2010).

¹¹⁵ MADIGAN, *supra* n. 30, at 289.

some Americans.¹¹⁶ Because pot-bellied pigs are commonly thought of as pets, this white paper focuses on standard pigs for the urban homestead.

The Backyard Homestead describes the benefits of the small-scale, standard pig-finishing enterprise:

[H]og ownership [is] a way to provide quality meat for the family table at moderate cost. When you raise your own hogs, you select them, feed them to an exact slaughter weight, and direct the processing This gives you an assurance of quality and wholesomeness that you can have in no other way.¹¹⁷

Pigs also provide a source of fertilizer for the garden, and their rooting behavior provides a natural tillage function for garden beds that lie fallow in the fall and winter. They naturally work their waste into the garden soil, enriching it and obviating the need for commercial fertilizer.¹¹⁸ In terms of community benefits, backyard pigs provide an alternative to the industrial food chain (and all of its drawbacks, including waste, pollution, use of antibiotics, and inhumane treatment of animals), and they also provide a means to process household food waste that might otherwise end up in the garbage.

2. Care and Space

The Backyard Homestead points out that a backyard can “easily accommodate” two pigs of the standard variety, and it provides a full section on pig

¹¹⁶ Wikipedia, *Pot-bellied Pig*, http://en.wikipedia.org/wiki/Pot-bellied_pig (last visited Feb. 7, 2010).

¹¹⁷ MADIGAN, *supra* n. 30, at 286. The garden pig movement is spreading fast in England and other places. See Charles Nevin, *I Made My Garden a Pig Farm*, INTELLIGENT LIFE MAGAZINE (THE ECONOMIST Winter 2009), <http://www.moreintelligentlife.com/content/charles-nevin/husbandry-tamworth-four>

¹¹⁸ *Id.* at 287; University of New Hampshire Cooperative Extension, *supra* n. 114 (“Composted pig manure makes an excellent addition to garden soils.”).

husbandry.¹¹⁹ As the book notes, raising pigs is far less of a commitment than goats, because of the short duration of time spent on the homestead.¹²⁰ The space needs of a standard pig are modest – just 150 square feet of pen space per pig (the University of Maine extension service recommends a smaller pen of 75 square feet; the University of New Hampshire Extension Service specifies 10-12 square feet of space per pig at market weight).¹²¹ This amount of space generally keeps mud problems from developing (although space needs may be greater in low-lying areas). Attached to the pen should be a simple pig hut for retreat during bad weather.¹²² Pigs can be easily contained (within a bigger chain-link fenced area) with one strand of electric wire, a temporary, movable system often used to enclose vicious guard dogs within a yard.¹²³

Pigs eat protein ration and corn, both provided from off-site sources. They also eat scraps and garden wastes as a supplement, which provides natural and beneficial waste recycling. Homesteaders can situate a pig “patio” next to a garden, so that garden scraps and plants can easily be tossed into the pig quarters as feed.

3. Management concerns

Pigs are not noisy and, if properly confined, do not pose significant problems for neighbors. Their most significant perceived drawback is smell: large-scale pig farms have notoriously foul odors. But the problem should not arise with just one pig in a backyard. As the New Hampshire Extension Service notes in its fact sheet,

¹¹⁹ MADIGAN, *supra* n. 30, at 257.

¹²⁰ *Id.*

¹²¹ University of Maine Cooperative Extension, *supra* n. 113; University of New Hampshire Cooperative Extension, *supra* n. 114.

¹²² MADIGAN, *supra* n. 30, at 286.

¹²³ University of Maine Cooperative Extension, *supra* n. 113; University of New Hampshire Cooperative Extension, *supra* n. 114.

Raising Pigs at Home, “Pigs will stay clean if you let them.”¹²⁴ Waste can be managed appropriately, mixed with soil or straw and composted, so that it can fill a productive function in the homestead.

Standard pigs, while optimally efficient in terms of meat production, may become difficult to manage near the end of the finishing period due to their sheer weight. The author of *Farm City* recounts an escapade of her pig when it broke loose on the streets of Oakland. Clearly, the standards for enclosures must be quite specific and strict in the case of a standard pig. A locked fence containing a pen to house the pig (which may include a pig house and pig “patio” as described in *The Backyard Homestead*), or an interior electric fence (as described in the University of Maine Extension Service Fact Sheet) within an exterior chain link fence would settle most concerns. Attack dogs, after all, are routinely kept within city limits even though they are bred and trained for viciousness towards strangers. The policy benefit of a standard pig, a relatively docile animal, is that it is present on the urban homestead for a fairly short time -- only a few months during the “finishing” period.

4. Resources

C.J. Mouser, Homestead.org, *Getting Started with Pigs*,
<http://www.homestead.org/CJMouser/GettingStartedwithPigs.htm>.

Carleen Madigan, ed., *The Backyard Homestead* 286-89 (Storey Publishing 2009).

Irvine Mesa Charros 4-H Club, *Pig Information*, <http://www.goats4h.com/Pigs.html>.

Kelly Klober, *Storey's Guide to Raising Pigs: Care, Facilities, Management, Breed Selection* (Storey 1997).

Raising Pigs at Home, University of New Hampshire Cooperative Extension, available at <http://extension.unh.edu/agric/AGDLEP/docs/pigraise.pdf>.

Raising the Backyard Pig, University of Maine Cooperative Extension, available at <http://www.umext.maine.edu/piscataquis/feedpig.htm>.

¹²⁴ University of New Hampshire Cooperative Extension, *supra* n. 114.

H. Bees

1. Homestead and community value

Bees have enormous value to the urban homestead and to the broader community. They produce honey, which is a local sweetener source (other sources, such as sugar, are produced thousands of miles away). They also pollinate trees, flowering shrubs, and flowering fruits such as berries, tomatoes, squash, and the like. Bees will “fan out” through a neighborhood, pollinating far beyond their home hive. Backyard beekeepers can therefore contribute to the agricultural productivity of the broader community. Honeybees pollinate a third of the nation’s food supply. By augmenting bee populations, backyard keepers may also help buffer the mysterious colony collapse afflicting the species nationwide.

2. Care and Space

Bees live in hives that are commercially available through Glorybee Foods, located in Eugene. They require monitoring for disease, and some focused management. Most backyard beekeepers, however, are prepared to assume duties after taking a beginning class. There is enormous interest in beekeeping in Eugene; indeed, the one class offered by the local beekeeper’s association fills quickly.

3. Management concerns

Bees, of course, occur in the wild. While the most obvious concern is stinging, honey bees are gentle and not aggressive, unlike wasps and yellow jackets. Moreover, since they are present in the wild, the stinging concern is not unique to backyard hives. A group of bees can “swarm,” that is, leave the hive at once and settle en masse in a different location. This, however, occurs in the wild as well.

Bees need a source of water, especially in warm spring and summer weather. It is important that this be provided on the home property, or the bees may swarm to neighbors' yards with open water or nearby pools.¹²⁵ It is also important to create at a 6-foot tall flyway barrier to force the bees' flight path above people's heads as they exit the hive. A flyway barrier can easily be created by placing the hive's entrance in front of a tall fence or dense shrubbery.¹²⁶

4. Resources

American Beekeeping Federation, <http://www.abfnet.org/>.

Beekeepers, Beekeeping Meetups, Events, Clubs and Groups in Your Area, Meetup.com, <http://beekeeping.meetup.com/>.

Carleen Madigan, ed., *The Backyard Homestead* 326-29 (Storey Publishing 2009).

GloryBee Foods, Inc. based in Eugene, available online at <http://www.glorybee.com/glorybee/Index.html>.

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 156-161 (Process 2008).

Kim Flottum and Weeks Ringle, *The Backyard Beekeeper: an Absolute Beginner's Guide to Keeping Bees in Your Yard and Garden* (Quarry Books 2005).

L.L. Langstroth, *Langstroth's Hive and the Honey-Bee: the Classic Beekeeper's Manual* (Dover Books 2002).

Lane County Beekeepers Association, <http://www.lcbaor.org/>.

Oregon State Beekeepers Association, http://www.orsba.org/htdocs/bee_schools.php (most states also have their own associations).

Richard E. Bonney, *Beekeeping: A Practical Guide* (Storey 1993).

IV. Other City Codes and Policy Choices for Revision

A. Other ordinances

¹²⁵ John Caldeira, *Backyard Beekeeping*, <http://outdoorplace.org/beekeeping/citybees.htm> (last visited Feb. 7, 2010).

¹²⁶ *Id.*

In undertaking this project, we consulted several other municipal ordinances pertaining to farm animals. For purposes of comparison, we focused primarily on ordinances from Belmont, California; Pasadena, California; Portland, Oregon; Seattle, Washington; and Cleveland, Ohio, as well as a few others where pertinent. We also considered a proposed ordinance in Beaverton, Oregon, and dozens of chicken ordinances compiled in a chart in *The Backyard Homestead*. There are undoubtedly many other ordinances in the country allowing a broad variety of micro-livestock, but a national survey was outside the scope of this project. The sample ordinances are sufficiently varied to illustrate an array of approaches.

It is useful to point out that the cities studied took various approaches to a number of issues explored below. Most ordinances had both sound policy features and questionable ones. In that sense, no ordinance was an “ideal” one. The discussion below draws from these various ordinances and makes recommendations. In crafting a proposed revision for Eugene and other cities, we sought to combine the strongest features of the various ordinances. In so doing, we normally opted for the maximum flexibility for the homeowner. Our rationale for this is to encourage innovation on a broad level within the city, understanding that codes may always be revised to respond to unforeseen problems. As noted at the outset of this white paper, a full slate of anti-nuisance provisions already exists in the current Eugene City Code to protect against abuse. These would not be changed.

B. Regulatory choices and recommendations

1. Scope of animals allowed

Some cities allow a fairly wide variety of micro-livestock. Seattle allows, for example, miniature potbelly pigs and miniature goats (with a license), domestic fowl, small animals (presumably including rabbits), and bees.¹²⁷ All are considered “accessory use[s]” to residential use and are permitted outright. Belmont allows chickens, geese, ducks, turkeys, pigeons (not homing pigeons), dove, squabs and “similar fowl,” rabbits, and pygmy goats (the code was recently amended to allow the latter).¹²⁸ Portland allows chickens, ducks, doves, pigeons, pygmy goats, rabbits, and bees.¹²⁹ Cleveland allows chickens, ducks, rabbits and bees.¹³⁰ Salem, Oregon allows pot-bellied pigs.¹³¹ The City of Pasadena allows chickens, geese, ducks, turkeys, pheasants, doves, pigeons, squabs, rabbits, and goats (of regular size; presumably pygmy goats are also allowed).¹³² San Francisco allows goats,¹³³ as well

¹²⁷ Seattle, Washington Municipal Code, Title 9 § 9.25.052, Title 10 § 10.36, Title 23 § 23.42.052. Available at <http://library.municode.com/index.aspx?clientId=13857&stateId=47&stateName=Washington> (last visited Feb. 10, 2010).

¹²⁸ Belmont, California Code of Ordinances, Art. II §§ 5-28 to 5-59. Available at http://library2.municode.com/1239/home.htm?infobase=10411&doc_action=whatsnew (last visited Feb. 10, 2010).

¹²⁹ Portland, Oregon City Ordinance, § 13.05.015(E) allows up to 3 of each animal without a permit; bees require a permit. Subsection (F) also provides, “due to the variety of animals covered by these regulations and the circumstances under which they may be kept, these regulations should be applied with flexibility.” Available at <http://www.portlandonline.com/auditor/index.cfm?c=28228&a=185339> (last visited Feb. 10, 2010).

¹³⁰ Cleveland, Ohio City Code, § 347.02. Available at http://caselaw.lp.findlaw.com/clevelandcodes/cco_part3_347.html (last visited Feb. 10, 2010). However, it is unclear how this provision interacts with § 205.04, which requires permits for farm animals and bees.

¹³¹ Salem, Oregon Revised Codes, § 119.070 (the code appears to be silent on the keeping of other animals). Available at <http://www.cityofsalem.net/departments/legal/pages/salemrevisedcodes.aspx> (last visited Feb. 10, 2010).

¹³² Pasadena, California Municipal Code, §§ 6.20.010 - 6.20.310. Available at <http://library.municode.com/index.aspx?clientId=16551&stateId=5&stateName=California> (last visited Feb. 10, 2010).

¹³³ City and County of San Francisco, California Health Code, Art. I § 27 has the only mention of goats in the health code. It allows the keeping of two female goats for the exclusive use of the owner’s family without a permit, and implies that more can be kept with a permit. Available at <http://library.municode.com/index.aspx?clientId=14136&stateId=5&stateName=California> (last visited Feb. 10, 2010).

as rabbits, chickens, turkeys, geese, ducks, pigeons, and game birds of any species.¹³⁴

Oakland allows pigeons, chickens, ducks, geese, other fowls, rabbits, goats, sheep, pigs and other animals within the city subject only to general nuisance provisions.¹³⁵

At least 60 cities allow chickens; the ordinances are compiled in *The Backyard Homestead*. Some cities continue to prohibit various classes of animals. Pasadena, for example, prohibits pigs. Various cities still prohibit chickens, although a large number (perhaps even the majority of cities, though we would not know without doing a national survey) seem to allow them.

As to pigs, some municipalities (such as Seattle and Salem) allow only pot-bellied pigs.¹³⁶ An exception is Oakland, California, which seems to allow pigs of any variety. The popular book, *Farm City*, chronicles an urban homestead experience of finishing two standard pigs on an urban lot in the heart of Oakland, California and calls pig husbandry the “pinnacle of urban farming.”¹³⁷ For meat purposes, *The Backyard Homestead* recommends regular pigs that are “finished” by the urban homesteader in just a matter of a few months.¹³⁸ Because of the association of pot-bellied pigs with pets, urban homestead ordinances should allow the standard pig. Actually, there is little distinction in terms of manageability or impacts between a pot-bellied pig, allowed in many places, and a standard pig. Contrary to the “miniature” description of pot-bellied pigs, they can grow quite large. Moreover, the impact on the urban setting (in terms of waste, noise, and

¹³⁴ *Id.* at § 37.

¹³⁵ Oakland, California Municipal Code § 6.04.310, 6.04.020, (defining animals) *available at* <http://library.municode.com/index.aspx?clientId=16308&statId=5&stateName=California> (last visited Feb. 16, 2010).

¹³⁶ *Supra* n. 127, at § 9.25.052; *supra* n. 131, at § 119.070.

¹³⁷ Carpenter, *supra* n. 35, at 187.

¹³⁸ MADIGAN, *supra* n. 30, at 14.

smell) is quite similar between pot-bellied pigs and standard “finishing” pigs. An important difference is that the standard pig is present for a much shorter period of time than a pot-bellied pig, which stays as a pet. We believe a standard pig can be kept on an urban lot, within a firm, fixed enclosure for a few months of “finishing” without disruption to neighbors, and without raising health or safety concerns. We therefore recommend allowing one pig per lot, of either the standard or pot-bellied variety, subject to the restrictions set forth below.

There are certain limitations that seem commonly imposed with respect to some animal breeds. For example, many cities prohibit roosters due to their noise impacts. Pasadena prohibits male goats exceeding six months of age, presumably because of their musky odor (emitted to attract female goats).¹³⁹ Seattle and Belmont both allow only miniature goats, and require that goats of either sex be dehorned (their horn buds removed), and male miniature goats neutered.¹⁴⁰ Seattle prohibits a pig greater than 22 inches in height at the shoulder or more than 150 pounds in weight.¹⁴¹ Salem restricts the pig to 18 inches in height at the shoulder and 100 pounds in weight (the animal must also be spayed or neutered).¹⁴²

Recommendations: We recommend a broad array of micro-livestock to include all types of animals now deemed accessories to the urban homestead as reflected in books on the matter, progressive ordinances, and websites. Not all property owners will choose to raise each kind of animal, as each requires a

¹³⁹ *Supra* n. 132, at § 6.20.100; *see also supra* n. 128, at § 5-52 (findings, describing odor of unaltered male pygmy goats).

¹⁴⁰ *Supra* n. 127, at § 23.42.052(F) (allowing young, un-neutered male goats to be kept until weaned without violating the provision, for up to 12 weeks of age); *supra* n. 128, at §§ 5-53(b), 5-54 (a).

¹⁴¹ *Supra* n. 127, at § 23.42.052 (B).

¹⁴² *Supra* n. 131, at § 119.070.

separate set of expertise. However, each animal type fills certain functions on the urban homestead, and a multitude of different animals can interact in synergistically positive ways. Based on the earlier discussion of various animals, we conclude that the following are appropriate and should be allowed in urban settings: miniature goats, pigs, chickens, ducks, turkeys, geese, quail, rabbits, and bees. Some restrictions should apply to some of these animals. For example, no roosters should be allowed, due to noise impacts. Homesteaders interested in raising chickens for meat have the option of buying a pre-sexed brood that excludes roosters. Or, the City could strike a balance between noise concerns and homesteading interests by allowing roosters under two or three months of age. At about that time, the roosters begin crowing, but they are also ready for harvest.¹⁴³

As to goats, they should be miniature and dehorned; males should be neutered (that is, if they are allowed at all, as they serve no milk purpose). As to pigs, we recommend allowing one female pig that is less than 250 pounds. (As an alternative, the ordinance can allow either sex, as long as the male is castrated). At all times the pig must be kept in an exterior fenced enclosure, a condition we recommend applying to any micro-livestock, as discussed more fully below. A pig should be kept in a locked and firmly enclosed pen (or an interior electric fence) of adequate size when it exceeds 150 pounds. This will still allow ample opportunity during part of the finishing period (when the pig is still below 150 pounds) for the pig to wander the enclosed backyard and root and till soil, a recognized service provided by pigs in the garden.

¹⁴³ OLKOWSKI, *supra* n. 33, at 281.

2. Lot Sizes and Number of Animals

Most, but not all, ordinances set limits on the number of animals that a property owner can have on a given residential lot. The restrictions are often bundled together with specifications as to lot sizes, and setbacks. Ordinances vary considerably in this respect. Often, animals are grouped together in certain categories (such as fowl) and an overall limit imposed, thereby allowing the homeowner to allocate the types of animals within the allowance. Some cities, such as Portland, have taken the approach of aggregating goats, rabbits, and various types of fowl into one category; Portland sets a total limit of three before a permit requirement is triggered.¹⁴⁴ This approach of grouping very different animals (each having different benefits and impacts) is somewhat arbitrary, overly restrictive, and defeats the objective of using animals in synergy on an urban homestead. Rabbits, for example, occupy very little space and are kept within a hutch, adding no real cumulative impact to the fowl kept on site. Moreover, chickens and turkeys have separate sorts of impacts because of their size. We recommend establishing separate categories and limits for chickens, turkeys, geese, ducks, rabbits, bees, goats, and pigs. Seattle, Washington has taken roughly this approach, though it aggregates all fowl.

The tables below summarize various city codes with respect to classes of micro-livestock. Conditions such as structural requirements, management and care, and permits are discussed in separate sections below and are not reflected in these charts.

¹⁴⁴ *Supra* n. 129, at § 13.05.015(E) (“A person keeping a total of three or fewer chickens, ducks, doves, pigeons, pygmy goats or rabbits shall not be required to obtain a [permit]”).

a. Chickens and Other Fowl

A large number of cities across all regions of the United States allow homeowners to keep an unspecified number of chickens, subject to general nuisance standards. *The Backyard Homestead* presents a sampling of 42 cities that allow unrestricted numbers of chickens (in 36 different states), and there are undoubtedly more such cities nationwide. Examples include: Oakland, California; Juneau, Alaska; Anaheim, California; Denver, Colorado; Hartford, Connecticut; New Haven, Connecticut; Atlanta, Georgia; Chicago, Illinois; Indianapolis, Indiana; Topeka, Kansas; New Orleans, Louisiana; Baltimore, Maryland; Biddleford, Maine; Detroit, Michigan; Minneapolis, Minnesota; Billings, Montana; Omaha, Nebraska; Reno, Nevada; Concord, New Hampshire; Buffalo, New York; Toledo, Ohio; Pittsburgh, Pennsylvania; Charleston, North Carolina; Memphis, Tennessee; San Antonio, Texas; Salt Lake City, Utah; Richmond, Virginia.¹⁴⁵ The information in the chart below is adapted from *The Backyard Homestead*, which provides a compilation of over 60 ordinances permitting backyard chickens. The cities below were selected to show varying degrees of flexibility. Ordinances prohibiting chickens were omitted from this chart but can be found in *The Backyard Homestead*, p. 349-52. (It should be noted that the information gained from the ordinance chart provided in *The Backyard Homestead* is taken as current and has not yet been checked for changes).

Chickens and Other Fowl

City	Fowl type	Numbers allowed	Lot Size	Setbacks	Other/notes
43 cities (sampling)	Chickens	No limit or limit			See discussion above

¹⁴⁵ MADIGAN, *supra* n. 30, at 349-352 (compiling chicken ordinances).

discussed above)		unspecified			
Milwaukee, Oregon ¹⁴⁶	Chickens	50			Requires neighbor consent (not recommended as a policy in this paper)
Oakland, California ¹⁴⁷	Chickens, ducks, geese, and "other fowls"	No limit	No specification	Enclosure must be 20 feet from any dwelling	The fowls must not cause a nuisance
Mobile, Alabama ¹⁴⁸	Chickens	25		200 feet from residence	Permit required
Belmont, California ¹⁴⁹	Chicken, goose, duck, turkey, pigeon, dove, squab, or "similar fowl"	20 adults (no specification for juveniles); but limit also applies to rabbits	None specified	No coop or cage within zoning code setbacks	
Seattle, Washington ¹⁵⁰	"Domestic fowl"	3 + 1 per 1,000 square feet over minimum lot size (or 5,000 square feet) ; ¼ acre lot would allow 9 fowl	See column to left		
San Francisco,	Chickens,	4 (but	None	Coops must be	

¹⁴⁶ Milwaukee, Oregon Municipal Code § 19.402.3(C), available at <http://www.qcode.us/codes/milwaukee/> (last visited Feb. 10, 2010).

¹⁴⁷ *Supra* n. 135, at §§ 6.04.310, 6.04.320

¹⁴⁸ Mobile, Alabama Municipal Code § 7-103, available at <http://library.municode.com/index.aspx?clientId=11265&stateId=1&stateName=Alabama> (last visited Feb. 16, 2010).

¹⁴⁹ *Supra* n. 128, at § 5-32.

¹⁵⁰ *Supra* n. 127, at § 23.42.052.

California ¹⁵¹	turkeys, geese, ducks, doves, pigeons, "game birds of any species	aggregate limit also applies to house pets and rabbits)	specified	20 feet from door or window of building used for residence	
Cleveland, Ohio ¹⁵²	Chickens, ducks	Tied to lot size	1 per 800 square feet (limit includes rabbits)	5 feet of side yard line; 18 inches back yard line; no coops/hutches in front or side yard	For lot of 4,800 square feet, permits total of 6 fowl/rabbits. Application & license required.
Pasadena, California ¹⁵³	Chickens, geese, ducks, turkeys, pheasants, doves, pigeons, "similar fowls"	10 (but the limit also includes rabbits, which are permitted)		50 feet of property line/100 feet of any residential dwelling	
Portland, Oregon ¹⁵⁴	Chickens, ducks, doves, pigeons	3 of this category allowed without permit	Unspecified	15 feet from other residences	More allowed with permit

Recommendation:

Chickens: Eugene's limit of two fowl presents a strict limit on home food production without apparent justification. There is much added benefit in terms of egg production that comes from allowing additional hens, but only nominal chance

¹⁵¹ *Supra* n. 133.

¹⁵² *Supra* n. 130, at § 347.02 (general requirements) and § 205.04 (license requirements).

¹⁵³ *Supra* n. 132, at §§ 6.20.030, 6.20.040.

¹⁵⁴ *Supra* n. 129, at § 13.05.015.

of increased burden on neighbors, assuming proper management. In nearby Springfield, a citizen can keep up to 4 chickens on any size of lot.¹⁵⁵ It is widely known that many people keeping chickens in Eugene are in violation of the limits, indicating a regulatory change is necessary.

Because chickens are ideal for the backyard, useful for both meat and eggs, and have few impacts in the urban setting, we recommend the approach of many cities described above -- placing no numerical limits on the number of chickens that can be kept. Enclosure and sanitation requirements, discussed below, will ensure the minimization of impacts and standards of animal care. Because no commercial production is allowed on residential lots, homeowners will raise just enough chickens to feed their family, and there will be no large concentrations of chickens that could cause neighborhood problems. A general nuisance provision, as described below, will suffice to protect neighbors from any adverse impacts.

As an alternative, if numerical limits are thought necessary, we recommend a limit applicable only to adult chickens over 6 months of age. The six-month demarcation separates the layers from the meat chickens. Fryer and roaster hens are harvested at 3-5 months of age.¹⁵⁶ As younger chickens, they have fewer impacts. Laying hens do not begin production until about 6 months of age.¹⁵⁷ In this manner, a permanent flock of laying chickens would be subject to numerical limits, but a temporary flock of meat-producing chickens would not be. In this alternative, we recommend eight adult chickens and no specified limit on chickens

¹⁵⁵ Springfield, Oregon Municipal Code § 5.408(1), available at <http://www.qcode.us/codes/springfield/>.

¹⁵⁶ MADIGAN, *supra* n. 30, at 224.

¹⁵⁷ OLKOWSKI, *supra* n. 33, at 282.

up to the age of six months. This approach effectively allows homesteaders a flock that will produce approximately two-dozen eggs a week,¹⁵⁸ and an unspecified number of younger hens to satisfy the meat needs of a family.

Turkeys: Currently, a residential lot in Eugene could have two adult turkeys, although that limit also applies to chickens in aggregate manner. Because of their very different functions, both in terms of meat production and in the garden, we recommend treating these and other fowl (such as ducks and geese) separately in the ordinance. We recommend allowing two adult turkeys over six months of age (since, at present, a homeowner could legally have that number) and up to four turkeys younger than six months of age. (It should be noted that some cities allow a far greater number of turkeys as indicated above). In that manner, a homeowner will be able to raise a small flock for ceremonial dinners and have the benefits of a few younger turkeys in the garden when it matters most during the growing season. It is unlikely that a homeowner would raise many chickens and turkeys at the same time, as they must be kept in separate areas of the garden due to potential disease transfer. The presence of young turkeys is not likely to cause an adverse impact on neighbors, because the period in which they are allowed on the property is only six months out of a year, and their size is small during much of that time. In any event, a broad anti-nuisance provision, as described below, will suffice to protect neighborhood concerns.

Ducks: Because of their distinct benefit to the urban homestead, particularly for insect control and meat production, we recommend that the limits for ducks be

¹⁵⁸ *Id.* at 281.

separately established and not included in an overall limit for “fowl.” In particular, two adult ducks of any species should be allowed on the premises (as they are currently allowed under Eugene law). To encourage home meat production, however, there should be separate limits on younger ducks. Because the Muscovy duck is fast growing, has no substantial noise impact, and yields very desirable meat, we recommend allowing a flock of 12 young ducks under the age of four months at any given time.

Geese:

Currently, a residential lot in Eugene could have two adult geese, although that limit also applies to chickens and other fowl in aggregate manner. We recommend allowing two adult geese over six months of age (since, at present, a homeowner could legally have that) and up to four geese younger than six months of age. (As noted above, some cities allow a far greater number of geese). In that manner, a homeowner will be able to raise a small flock for ceremonial dinners. As is the case with turkeys, the presence of young geese is not likely to cause an adverse impact on neighbors, because the period in which they are allowed on the property is only six months out of a year, and their size is small during much of that time. In any event, a broad anti-nuisance provision, as described below, will suffice to protect neighborhood concerns.

Quail

We recommend allowing quail with no numerical restrictions. Due to their small size, quiet nature, and pen confinement, as well as the fact that they mature and are harvested at four-six weeks, backyard quail are unlikely to cause any

adverse effects to neighbors. Because a quail provides only a few ounces of meat, an urban homesteader must raise larger numbers of this type of bird (as opposed to other fowl) to contribute to self-sufficiency.

b. Rabbits

The following chart compiles restrictions pertaining to rabbits in the sampled cities. Undoubtedly, many cities that we did not explore allow rabbits as well.

City	Numbers allowed	Lot Size	Setbacks	Other/notes
Oakland ¹⁵⁹	No limit	Not specified	None imposed	Subject only to nuisance provision
Belmont ¹⁶⁰	20 adults; unspecified number of juveniles (includes fowl)	Not specified	Comply with standard city setbacks for hutches	
Cleveland ¹⁶¹	1 rabbit per 800 square feet of property (grouped with other animals)	See column to left	No coops within five feet of side yard line or 18 inches of rear yard line; no coops in front yard	
Seattle ¹⁶²	3 (limit is separate from fowl limit but includes goats as “small animals”)	Lots over 20,000 feet have greater allowance (4 animals)	None specified	
Pasadena ¹⁶³	10 (but limit applies to fowls)	None specified	50 feet to any property line,	

¹⁵⁹ *Supra* n. 135.

¹⁶⁰ *Supra* n. 128.

¹⁶¹ *Supra* n. 130.

¹⁶² *Supra* n. 127.

	as well)		and 50 feet of any inhabited structure	
Portland ¹⁶⁴	3 allowed without permit (limit includes fowls and goats however)	None specified	15 feet setback from any residence (not applicant's) – unclear whether this applies to less than 3 rabbits	More allowed subject to permit
San Francisco ¹⁶⁵	4 (includes dogs, cats, and all fowls)	None specified	Coops not closer than 20 feet from any door or window of building used for human habitation	Note: it appears coops can be inside a building

Recommendation:

Since rabbits are a valuable source of meat having virtually no significant impacts on neighbors if properly managed, we recommend a numerical limit of six adult rabbits. This allows homesteaders to implement the “one buck - four doe” system that yields five pounds of dressed meat a week, as described in *The Integral Urban House*, as well as one to keep Angora rabbit for purposes of wool production.¹⁶⁶ Eugene already allows two adult rabbits, and does not specify the regulatory treatment for juvenile rabbits. We would allow an unspecified number of juvenile rabbits under the age of 12 weeks (the standard harvest time is 8 weeks). We would not impose setback limitations, as one of the main efficiencies associated

¹⁶³ *Supra* n. 132.

¹⁶⁴ *Supra* n. 129.

¹⁶⁵ *Supra* n. 133.

¹⁶⁶ OLKOWSKI, *supra* n. 33, at 261.

with rabbits is that they may occupy otherwise wasted spaces. Rabbit waste is valuable for garden compost, and should not pose odor concerns if managed properly. Any concerns associated with odor from rabbit urine would be met with the general nuisance provision which requires property owners to ensure that odors are not detectable beyond property lines. Some cities have setback requirements from residences, but those are likely standard setbacks and are not tailored to concerns associated with a home rabbitry.

c. Goats

The following chart compiles restrictions for the examined cities pertaining to goats. Undoubtedly, many cities that we did not explore allow goats as well.

City	Goat type	Numbers allowed	Lot Size	Setbacks	Other/notes
Oakland ¹⁶⁷	Not limited	No limit	Not specified	None imposed	Subject only to nuisance provision
Pasadena ¹⁶⁸	Not limited	2	Not specified	1 goat – 100 foot setback from residence (not owner’s); 2 goats – 200 foot setback	No male goats exceeding 6 months of age
Portland ¹⁶⁹	Pygmy allowed without permit; other goats subject to permit	3 pygmy goats (but note: grouped with other animals subject to same numerical limit)	None specified	15 feet setback (for goat structure) from any residential dwelling ¹⁷⁰	

¹⁶⁷ *Supra* n. 135.

¹⁶⁸ *Supra* n. 132, at § 6.20.100.

¹⁶⁹ *Supra* n. 129.

¹⁷⁰ It is unclear from the regulation whether this setback applies in the case of less than three animals.

San Francisco ¹⁷¹	Not limited	2	None specified	None specified	No male goats allowed
Seattle ¹⁷²	Miniature goats	3 (but limit applies to all “small animals”) – can have 4 on lots of over 20,000 square feet	None specified	None specified	Males must be neutered; all must be dehorned. License and fee required.
Kalispell ¹⁷³	Pygmy goats	2	None specified	None specified	None specified

Recommendation:

In light of their outstanding value for dairy production, we recommend that the City of Eugene allow two pygmy goats on residential lots. Two goats are necessary for companionship and provide full dairy for a household of four. While some cities allow standard goats, we see no reason at this time for following suit. Pygmy goats are far easier to handle, are treated as household pets, and have no significant management concerns. Because they are even more benign than dogs in terms of impacts (no barking, no biting), and have minimal shelter needs, we see no reason for imposing setback requirements.

d. Pigs

As noted above, a homesteader seeking to produce pork will likely chose to “finish” a standard pig for a few months in a pen on their property, and then send it

¹⁷¹ *Supra* n. 133, at § 27.

¹⁷² *Supra* n. 127, at § 23.42.042 (general requirements) and § 9.25.052 (license requirements).

¹⁷³ Kalispell Municipal Code, Chapter 4, Article I, *available at* <http://qcode.us/codes/kalispell/> (last visited Feb. 16, 2010).

off-site to a commercial butchering facility, as described in the book, *The Backyard Homestead*. Most cities that allow pigs on urban property specify that the pig must be the pot-bellied miniature variety. Oakland is an exception, allowing the standard pig.

Recommendation:

For the reasons set forth in section IV.B. above, we recommend the Oakland approach of allowing this animal on urban lots. However, we would limit the allowable number to just one, in order to ensure manageability and restrict impacts. A household seeking more pork can raise more than one pig a year at alternate times. We recommend limiting the weight of the pig to 250 pounds, which yields ample pork yet does not threaten manageability. We also recommend a fencing requirement.

e. Bees

Bees are currently allowed in Eugene, with no mention in the City code. Most cities allow bees, but some limit the number of hives allowed on residential lots, and some impose setbacks and flyway conditions. Seattle, for example, permits beekeeping “outright as an accessory use,” but limits the number of hives to four on lots of less than 10,000 square feet. It imposes a 25-foot setback from any lot line (with some exceptions).¹⁷⁴ Cleveland allows bees but sets a limit of one beehive for each 2,400 square feet and imposes a setback requirement of 10 feet from any dwelling on another parcel.¹⁷⁵

Recommendation:

¹⁷⁴ *Supra* n. 127, at § 23.42.052.

¹⁷⁵ *Supra* n. 130, at § 347.02(d).

Eugene’s current approach of allowing bees without restriction is well-founded. Fashioning restrictions on bees is inherently difficult because of the varying nature of property. Property owners are likely to go into beekeeping with a fair amount of trepidation, and it is unlikely any property owner will over-extend his or her property for the keeping of bees. Moreover, the mentorship program in Eugene (offered through Lane County Beekeepers’ Association) is robust and promotes beekeeping in a manner compatible with neighborhood values. This privately-offered, free-of-charge, widely used community service is likely to prevent a significant number of problems. We believe the general nuisance provision discussed below will suffice to protect neighbors against any intrusions associated with beekeeping. We therefore recommend that the City revise its ordinance only to make clear that bees are allowed, but not to impose any additional restrictions other than a prohibition against Africanized bees. Some cities impose water and flyway requirements. We believe that since lots in Eugene vary so much in their natural characteristics, the city’s currently flexible approach which sets forth no specific requirements is well-advised. However, if the City wishes to impose water/flyway requirements, it could adopt the following language: “Bees must have access to water on site at all times, and the hives must have a 6’ flyway barrier on the entrance side, which may consist of a wall, fence, dense vegetation, or a combination thereof.”

3. Physical Enclosures/Structures/Setbacks

Most ordinances provide setbacks for structures housing farm animals. These vary widely, with no apparent rationale. Seattle’s ordinance also requires a

10-foot setback from other lots.¹⁷⁶ Eugene has a setback of 25 feet from residences (not the owner's) and 10 feet from interior lot lines. We recommend adjusting these limitations to a 15-foot setback from residences (not the property owner's), and a 5-foot setback from interior lot lines to increase flexibility for the homeowner. These minimal changes should not have any significant impacts to neighbors.

Most, but not all, cities have a requirement to fence in the animal. Eugene's reads as follows: "Fencing: Shall be designed and constructed to confine all farm animals to the owner's property."¹⁷⁷ We recommend retaining this provision, as it strikes the right balance between specificity and generality. Some city codes specify dimensions and particulars with respect to chicken coops and other housing for micro-livestock. This is unnecessary and ill-advised, as the coop structures and other containment systems vary widely. Eugene does not specify housing requirements for animals, but nevertheless adequately provides for animal welfare in section 4.340, which requires that domestic animals have "access to [an] enclosed structure sufficient to protect the animal from wind, rain, snow or sun and which has adequate bedding to protect against cold and dampness."¹⁷⁸ That provision is sufficient and very much like the one adopted by the City of Belmont: "Such enclosure shall be of sufficient size to safely and adequately house, maintain, and exercise the animals and fowl, and provide adequate shelter from the elements and from other animals."¹⁷⁹

4. Sanitation

¹⁷⁶ *Supra* n. 127, at § 23.42.052(c).

¹⁷⁷ Eugene City Code, *supra* n. 3, at § 9.5250.

¹⁷⁸ *Id.* at § 4.340.

¹⁷⁹ *Supra* n. 128, at § 5-32.

Many ordinances have general provisions regarding sanitation. Of the ones we examined, Eugene's strikes the most optimal balance between specificity and generality. We recommend retaining the current provision as is (except to add the term "microlivestock"), which states the following:

"Sanitation: Proper sanitation shall be maintained for all farm animals.

Proper sanitation includes:

- (a) Not allowing farm animal waste matter to accumulate;
- (b) Taking necessary steps to be sure odors resulting from farm *and microlivestock* animals are not detectable beyond property lines, and;
- (c) Storing all farm animal food in metal or other rodent-proof containers.

5. Permit or No-Permit/Inspection

One of the policy choices any city must make is whether to require a permit in order to keep micro-livestock of the sorts mentioned above on urban lots. Only a few municipalities have opted for permits. Portland is one of them. It requires the owner to obtain a permit to operate a "specified animal facility" which houses more than a total of three chickens, rabbits, ducks, doves, pigeons, or pygmy goats.¹⁸⁰ Cleveland, Ohio, also requires a permit for coops and other structures from the Department of Building and Housing and a 2-year license from the Department of Public Health.¹⁸¹ These regulations are overly bureaucratic, and most cities simply allow the specified animals outright without a permit. This is the method of Seattle and Pasadena, for example.

¹⁸⁰ *Supra* n. 129, at § 13.05.015.

¹⁸¹ *Supra* n. 130, at § 347.02(i).

There are many reasons to not require a permit, and few reasons to support a permit system. First, a permit unduly strains government resources. Most cities face budget constraints and cannot add the extra personnel to implement a permit program. One might argue that permit fees could pay for part of the program, but permit fees will dissuade property owners from creating urban homesteads with micro-livestock – indeed, one of the most compelling reasons to engage in the enterprise is to create monetary savings in household food use. Second, there is no harm associated with micro-livestock that rises to the level of harm requiring a permit. General nuisance provisions discussed below will suffice to protect neighborhood values. Other, far more dangerous activities are not subject to a permit, such as gun ownership by private property owners, the keeping of attack dogs, or the use of hazardous chemicals at home. One exception to this rationale might be the keeping of a standard sized pig. Because the pig must be housed in a firm, durable pig pen, and because pigs involve some hazards due to their size and temperament, a permit requirement may be reasonable in that instance. The City of Oakland, however, does not require a permit for standard pigs, and that choice is also a reasonable one. It is unclear what benefit a permit requirement would add. A middle-of-the-road strategy might be to require a license for standard pigs, similar to a dog license. Ultimately, however, we recommend against a permit or license requirement, even for pigs, until such point as experience shows its necessity.

A related issue is inspection authority. Some cities, like Portland, subject the homeowner to inspection “at any reasonable time.”¹⁸² This certainly seems

¹⁸² *Supra* n. 129, at § 13.05.015(C).

excessive and a severe intrusion into the privacy expectations of homeowners. Such a provision would no doubt dissuade many people from raising urban livestock, thereby defeating the policy goals outlined at the outset of this white paper. Any concerns about compliance with the law can be handled as they normally are, with enforcement flowing from neighbor complaints. For these reasons, we recommend that the City not provide for random inspection authority in its regulations.

6. Neighbor Notice and Consent

Portland, Oregon has an unusual requirement of notifying neighbors within 150 feet of property lines of the presence of micro-livestock exceeding certain numbers.¹⁸³ We find this provision to be ill-advised and unnecessary, bound to stir up neighborly squabbles. Because there can be no rational basis for a “neighbor’s veto” under the law in advance of a particular activity, requiring prior notification of neighbors is arbitrary. Moreover, it may simply present a tool for neighbors to seek retribution for wholly unrelated disputes. If a nuisance develops in association with the micro-livestock, property owners of neighboring lots have sufficient venues to seek enforcement through the enforcement office of the relevant department.

7. Animal Harvest and Management

Harvesting animals for meat on the property is directly allowed in many ordinances, and the remaining ones are silent on the matter, meaning that the activity is not prohibited. The policy choice is whether to expressly mention slaughter or not. The benefit of doing so is that the city can impose basic standards, most of which apply to visual shielding from neighbors. We recommend following

¹⁸³ *Id.* at § 13.05.015.

the direction of Charlotte, North Carolina. Its relevant code provision states: “*Slaughter*. Any slaughter of any livestock or poultry not regulated by state law or otherwise forbidden or regulated shall be done only in a humane and sanitary manner and shall not be done open to the view of any public area or adjacent property owned by another.”¹⁸⁴ It should be noted that Eugene City Code section 4.335, pertaining to animal abuse, should be amended to make clear that harvest of micro-livestock for personal food consumption does not violate the section. A suggested revision to the current language of that section is italicized: “Any practice of good animal husbandry, *including harvest or use of animals or animal products for consumption as food*, is not a violation of this section.”

8. Commercial Activities

Urban homesteading is geared to providing sustenance on the family level. A multitude of other concerns arise when one engages in commercial activity. We recommend that the City of Eugene follow the direction of many other cities by prohibiting the sale of any dairy or meat from the micro-livestock covered under this section. Prohibiting commercial sale also provides a natural ceiling to the numbers of animals that will be maintained by the property owner in cases where numerical limits are not specified (such as chickens). We do, however, recognize the need to take a broad look at micro-businesses that can provide food on the neighborhood level and encourage the city to explore that dimension of food security. Such an inquiry, however, is beyond the scope of this memo. If the city

¹⁸⁴ Charlotte, NC Code of Ordinances § 3-102 (c)(4). Available at <http://library.municode.com/index.aspx?clientId=19970&stateId=33&stateName=North%20Carolina> (last visited Feb. 10, 2010).

decides to allow micro-businesses involving meat and dairy, other provisions of the code will need revision.

It should be noted that section 4.485, pertaining to commercial sale of baby chicks, ducklings, goslings and rabbits, needs adjustment. It forbids sale of less than 12 birds or rabbits to an individual person. This is not complied with currently, and, if followed, would force urban homesteaders to buy 12 or more of a species despite numerical limits in the regulations.

9. General Nuisance Provisions

Most cities have nuisance provisions in their regulations governing home livestock. These offer adequate protection for neighbors. Eugene has such provisions, relating to odor, public health, sanitation, noise, carcass management, and animal containment, in sections 4.430, 4.455, 4.470, and 6.010. We recommend leaving these provisions in place. For cities drafting new ordinances, we recommend the following provision, adapted from ordinances of Oakland, California and Pasadena, California:¹⁸⁵

It is unlawful and shall constitute a public nuisance for any person to keep within the limits of the city any animal which unreasonably disturbs the peace and comfort of the inhabitants of the neighborhood in which such animal is kept, or interferes with any person in the reasonable and comfortable enjoyment of life or property, or creates a significant risk of injury to life or property.

V. Recommendation

¹⁸⁵ *Supra* n. 132, at § 6.20.120; *supra* n. 135, at § 6.04.310.

We recommend adjusting the provision of the code that currently restricts the ability of Eugene citizens to engage in microlivestock husbandry on urban homesteads. We recommend that Eugene City code 95.250 be amended as follows:

9.5250: Farm Animal and Microlivestock Standards

1) Purpose: The regulations of this section are established to permit the keeping of farm animals, microlivestock, and bees to promote the goals and benefits of urban homesteading, including productive use of private property, personal food choice, family subsistence, community food security, sustainability, and animal welfare, in a manner that prevents nuisances to occupants of nearby properties and prevents conditions that are unsanitary or unsafe.

2) Microlivestock allowed: The following are allowed on any residential lot under 20,000 square feet subject to the restrictions herein: chickens, turkeys, geese, ducks, quail, rabbits, pygmy goats, pigs and bees. The microlivestock under this section shall not be raised or harvested for commercial purposes.

(a) Chickens: There are no roosters allowed.

(b) Turkeys are limited to 2 adult animals (over 6 months of age), and 4 younger fowl.

(c) Geese are limited to 2 adult animals (over 6 months of age), and 4 younger fowl.

(d) Ducks are limited to 2 adult animals (over 6 months of age), and 12 younger fowl.

(e) Quail are allowed without restriction as to number.

(f) Rabbits are limited to 6 adult animals (over 6 months), with no restrictions on younger animals. Rabbits shall be kept in a hutch or fenced enclosure.

(g) Pygmy goats are limited to 2 female animals and nursing offspring. Pygmy goats shall be kept in a fenced yard or enclosure. All adult pygmy goats must be dehorned.

(h) Pigs are limited to 1 female, up to 250 lbs. of weight. The pig must be kept in a fenced yard or enclosure, and if its weight exceeds 150 lbs., such enclosure must be kept locked at all times.

(i) Bees are permitted on the property. Africanized bees are not permitted.

3) Chickens (no roosters), turkeys, geese, ducks, quail and other fowl, rabbits, pygmy goats, pigs, cows, horses, sheep, goats, emus, llamas, and bees are allowed in AG and R-1. There is no limit to the number of fowl or rabbits of any age permitted in AG and R-1 provided they are on a development site that contains at least 20,000 square feet and they meet the standards herein.

4) Sanitation: Proper sanitation shall be maintained for all farm and microlivestock animals. Proper sanitation includes:

- (a) Not allowing animal waste matter to accumulate;
- (b) Taking necessary steps to ensure odors resulting from farm and microlivestock animals are not detectable beyond property lines; and
- (c) Storing all food in metal or other pest-proof containers.

5) Fencing: Fencing shall be designed and constructed to confine all farm and microlivestock animals to the owner's property.

6) Setbacks: All structures that house farm animals or microlivestock shall be located at least 15 feet from all existing residences (except the animal owner's) and at least 5 feet from interior lot lines.

7) Minimum Lot Size Requirements:

- (a) No minimum lot size for animals kept pursuant to section 2.
- (b) Minimum lot size of 20,000 square feet for standard size cows, horses, sheep, goats, emus, and llamas.
- (c) Minimum area per standard size animal over 6 months of age: Cows and horses: 10,000 square feet. Standard size sheep, goats, emus, and llamas: 5,000 square feet.

8) Harvesting of animals: Fowl and rabbits may be slaughtered on site in a humane and sanitary manner and not open to view of any public area or adjacent property owned by another. Pigs and other large animals shall not be slaughtered on site.