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I. Introduction to the report

The goal of this report is to present the policies, from strategies to specific instruments, that are potentially relevant to farmers and gardeners in the city of Lausanne. The report is embedded in the context of the Better Gardens project, a project funded by the Swiss National Science Foundation. The Better Gardens project aims to connect gardeners' motivations to their actions, and these actions to garden outcomes (social, biodiversity, and soil). A fundamental assumption of the project is that gardeners' motivations are steered by both personal influences and policies; therefore, to understand gardeners' motivations it is necessary to understand policies that may affect them. This is one of a series of three reports on urban agriculture policies in Bern, Lausanne, and Zurich.

The definition of urban agriculture in this report is taken from Vejre et al.'s chapter "Can agriculture be urban?" in the book *Urban Agriculture Europe*. It reads as following: "Urban agriculture spans all actors, communities, activities, places, and economies that focus on biological production in a spatial context, which – according to local standards – is categorized as 'urban'. Urban agriculture takes place in intra- and peri-urban areas, and one of its key characteristics is that it is more deeply integrated in the urban system compared to other agriculture.(...) It is integrated into the social and cultural life, the economics, and the metabolism of the city" (Vejre et al. 2015, p. 21).

This report consists of six sections. The first is an introduction, which explains the structure of the report, choice of sections, and boundaries for the system described. The second is an overview of the history and current status of farms and gardens in Lausanne, which serves to contextualize the report. The third section reports on the general outlook of the city with regard to urban farming and urban gardening; that is to say, the potential opportunities and challenges the city sees for these practices. The fourth, fifth, and sixth sections are topically divided; each discusses the city's framing of the topic in its official documents, the strategic goals of the city related to the topic, and instruments and projects that address the topic.

The selection of topics is based on a document entitled "Good Laws, Good Food: Putting local food policy to work for our communities" by the Harvard Law School Food Law and Policy Clinic (2012). It is a toolkit "formulated in response to the recent growth in the number of new local food policy councils, with these food policy councils intended as our main audience". The toolkit contains a section on urban agriculture, which "provides a variety of methods through which local food policy councils can work with local governmental or non-governmental partners to support existing or potential urban agriculture initiatives". Although the focus of the toolkit is primarily on local policy, ("meaning the laws and policies that are created at the municipal city or county level") it also has "many aspects [...that] are applicable to policy change at several levels of government and may reference policy change at various levels of government". Although the toolkit is designed to enable creation of new policies supportive of local food, the suggested policies also provided the framework on which this policy inventory

is built. This document was selected because it gives a comprehensive view of potential policies that affect urban agriculture – that is to say, it has a section of information on policies that can affect urban agriculture specifically, while other documents focus on agriculture more generally or the entire urban food system. The toolkit is also not specific to one context or case study, meaning that it should give an overview of all policies that could potentially be relevant, rather than just what exists in one context. Finally, although the toolkit was designed in the USA, the generalized nature of the document means it should prove useful despite the geographical context. The urban agriculture considerations in “Good Laws, Good Food” are divided into three sections, ‘allocating resources’, ‘ecological health’, and ‘zoning’, and these are the three sections used for this report. The subsections in this report area also mainly based on topical issues raised in the “Good Laws, Good Food” document.

Two criteria were used to decide which policies should be included. The first was spatial: policies must be potentially relevant to gardeners or farmers within the administrative boundaries of the city of Lausanne. The second criterion was that only policies that affect uniquely urban farmers and gardeners would be included; this report does not consider the numerous agricultural policies that would affect any Swiss farm regardless of location. However, some policies (e.g. regarding pesticides) that would affect non-urban farms are also included, because of the fact that they are relevant to urban gardeners too.

Sections 4-6 contain descriptions of existing and potential instruments for urban agriculture in Lausanne. These instruments are listed in the following format: *summary name (type of instrument; actor)*. The summary name is an unofficial, brief description of the instrument. Instruments were categorized into four main types, which are outlined in the RUAF working paper “Key Issues and Courses of Action for Municipal Policy Making on Urban Agriculture”. These categories are: legal instruments (“actors can be forced to adopt a certain desired behavior”), economic instruments (“actors will adopt a certain desired behavior if this gives them some economic gains”), communicative/educative instruments (“people will adopt a certain desired behavior if they are well informed” about positive/negative effects), and urban design instruments (“actors will adopt a certain desired behavior if their physically environment has been designed in such a way that they are more or less automatically prompted to act a certain way”) (de Zeeuw et al. 2009, p.16-18). In addition, a fifth type of instrument designation (internal) is applied, for instruments/projects which are designed to inform governance, rather than to affect gardeners or farmers directly. The actor refers to the party responsible for enacting/enforcing the instrument, which is often but not always the same as the party responsible for creating the instrument.

2. Overview: history and current status of urban agriculture in Lausanne

The city of Lausanne has a large proportion of green space: the whole administrative area includes 44% public green space and 14% private green space. In the part of the city that is urbanized, the relative proportion of domestic gardens rises even higher, to 24% of the area, equaling 453 hectares. In addition to these domestic gardens, there are 11 hectares of allotment gardens in the city (Lausanne 2012).

In Lausanne, allotment gardens are subdivided into two types: family gardens and plantage gardens¹. The family gardens exist on space that is leased from the city by the Family Garden Association, which then leases parcels to individuals. The plantage gardens are leased directly from the city to individual gardeners (C.35/1-cl – LSP p.2). The Family Garden Association of Lausanne was founded in 1917, whereas the concept of plantages was created in Préavis N° 92 of 27 April 1995, with the first site created in 1996, some 80 years after the first family garden (SPADOM 2016e; C.35/1-cl – LSP, p.2).

There are 10 family garden sites, subdivided into around 550 plots. Each plot is between 100 and 300m², making them considerably larger than the plantage plots, which range between 6 and 48m². There are around 350 plantage plots, located on 12 sites with between 5 and 62 plots per site (SPADOM 2016e; SPADOM 2016c).

A study by Crole-Rees et al. (2015) showed that food produced from both allotment and domestic gardens is used for personal consumption and not sold commercially.

In addition to these domestic and allotment gardens, there are other gardens such as community gardens, university gardens, school gardens, or the gardens of non-profit organizations (Crole-Rees et al. 2015). There are also rooftop greening projects in the city, within about 212,000m² of green roofs (Rapport-Préavis N° 2016/27). The rooftop gardens “can permit experimentation with innovative agricultural techniques, awareness-raising among the public, and contributing to local food production” (Rapport-Préavis N° 2016/27, p.19). Existing rooftop gardens are generally managed by associations (neighborhood or building associations, schools, or even social/professional reinsertion organizations) (Rapport-Préavis N° 2016/27, p.19).

The city is involved in urban apiculture, and owns a number of livestock animals (see section 5.2.3), as well as having over 500 fruit trees on city land (Rapport-préavis 2017/18, p.16).

There is also commercial agriculture production in the peri-urban areas (Crole-Rees et al. 2015), and the city of Lausanne itself owns 750 hectares of agricultural land and 36 hectares of vineyards (Lausanne, 2012), although many of these are located outside of the city's

¹ Additionally, potager gardens are mentioned in text as being similar to plantage gardens, but managed by different city departments (Préavis n° 2011/04 p.3). No information could be found regarding policies relevant to these gardens so these are not considered throughout this report.

administrative limits. About half of this land is divided into 7 farms. The remaining 460 hectares is divided into smaller parcels and leased to 65 farmers in total (SPADOM 2016c). This land is commercially productive, producing cheese, milk, potatoes, and cereals, among other products. Each year, 500 tons of cereals are produced on the farms. (Domaine des Saugealles 2017; SPADOM 2016c). In addition to productive purposes, two of the farms are also used for children's education. These two pedagogical farms are Chalet-de-la-Ville and Cases aux Monts-de-Pully (SEPS 2017). The worth of the city's farms was evaluated at 33 million CHF in 2003 (Rapport-Préavis N° 2003/26, p.9). The city sees itself as a key player in the theme of agriculture in the city and maintenance of city-rural links, through its agricultural lands (Rapport-Préavis N° 2016/27, p.5), and says that in general there is strong moral support for local agriculture and community supported agriculture, or CSAs (Rapport-préavis N° 2014/36, p.8). In the action plan for municipal catering, the city defines local products as agricultural products coming from within the canton of Vaud for the purposes of municipal catering (Rapport-préavis N° 2014/36, p.2). It is noted that interest in local agriculture has grown to the point that many people are interested in having personal hands-on involvement (Rapport-Préavis N° 2016/27, p.19).

The first part of the city's Agenda 21 notes that agricultural zones are becoming rare in Lausanne but their disappearance is not desirable due to the significance to the population (Rapport-Préavis N° 155, p.25). Promoting short food chains is also listed in the city's legislative programme for 2016-2021 as a way of meeting various challenges (Municipalité de Lausanne 2016, p.13). However, there are policies at all levels to promote inward development of urbanization and minimize sprawl, in order to protect agricultural land (Rapport-Préavis N° 2005/53, p.11; PALM 2016, p.140), which is acknowledged as potentially causing problems to the idea of urban greening, as it leads to densification and reduced green space in the city area (Rapport-préavis N° 2012/11, p.8, p.10).



Table 1. Overview of garden types in Lausanne (quantitative data source: Conseil Communal de Lausanne 2011; descriptions author's own)

| | | First site established | Sites (#) | Plot size (m ²) | Plots (#) | Total area covered (ha) |
|-----------|------------|---|-----------|-----------------------------|-----------|-------------------------|
| | Domestic* | Gardens located mainly next to people's homes; privately owned and privately managed land | | | | |
| | | na | unknown | na | na | 453 |
| Allotment | Family | Gardens take the form of plots, located adjacent to other plots at one of several sites; publically owned and privately managed, with Family Garden Association as a middleman in the leasing arrangement | | | | |
| | | 1917 | 10 | 100-300 | 550 | 11 |
| | Plantage** | Gardens take the form of plots, located adjacent to other plots at one of several sites; publically owned and privately managed, with plots leased directly from the city to gardeners | | | | |
| | | 1996 | 20** | 6-48 | 323** | 2.5** |
| | Other | Various; generally a single piece of land cared for by a group/organization (e.g. school, university), or a rooftop garden, or allotment-type garden on privately owned land. May have an additional dedicated purpose, e.g. social interaction. As these are rarely treated as a unit, numerical information is not available. | | | | |

* also known as private gardens, household gardens, etc.

**this data is for plantage and potager gardens combined

3. General outlook of the city on urban agriculture

A number of strategic documents at city level refer to the importance of gardens, either directly or as a type of green space. Agriculture is also discussed although it is often not specified whether the documents refer to urban agriculture.

Below is a brief overview of the various roles which the city of Lausanne ascribes to urban gardens, as documented in official publications. These publications refer overwhelmingly to advantages offered by urban gardens, and clearly seem to indicate the underlying belief that gardens “can help maintain and develop a good quality of life” (PDCOM Lausanne 2014, p.61). The legislative programme mentions that urban nature measures, including gardening for private and public areas, should be encouraged systematically (Municipalité de Lausanne 2016, p.8). The roles below are ascribed to gardens in particular, and are listed in no particular order.

1. Socio-cultural: gardens are places for meeting and communication, social networking (Rapport-Préavis N° 2016/27, p.4; Préavis n° 2011/04 p.1, Rapport-préavis N° 2012/11, p.6)
2. Health and wellbeing: gardens are places for relaxation and restoration, leisure and sport (Rapport-Préavis N° 2016/27, p.4; Préavis n° 2011/04 p.5)
3. Educational: gardens are places for cognitive, motor, and social childhood development, as well as teaching and learning (Rapport-Préavis N° 2016/27, p.4; Préavis n° 2011/04 p.5; Municipal master plan p.61)
4. Emotional: gardens are places where people feel connections to past events, and places that encourage place-attachment (Rapport-Préavis N° 2016/27, p.4; Rapport-préavis N° 2012/11, p.6)
5. Economic: gardens improve the value of real estate, and provide locally grown fruits and vegetables, which for some families can represent the worth of a 13th salary payment (Rapport-Préavis N° 2016/27, p.4; Préavis n° 2011/04 p.5; Rapport-préavis N° 2012/11, p.7).
6. Ecological: gardens are important for biodiversity and for nature in the city generally, as well as reducing grey energy by providing local food (Préavis n° 2011/04 p.1, p.5, p.8; PALM 2016, p.141; Municipalité de Lausanne 2016, p.8).
7. Landscape: gardens are a part of natural heritage, contribute to urban greenness, and play a role in planning (PALM 2016, p.141; Préavis n° 2011/04 p.1; Préavis n° 2011/04 p.5).

The next lines indicate the roles ascribed to practices that could be considered types of “urban agriculture” but are not specifically garden-related. Rapport-Préavis N° 2016/27 also states that “The city plays a key role in the topic of agriculture in the city and maintaining urban-rural links, through its agricultural estates”, showing the city’s view of itself as a key player in urban agriculture (Rapport-Préavis N° 2016/27, p.5). Again, these are listed in no particular order.

1. Food production: a way of providing food that is high-quality and contributes to household self-sufficiency (Rapport-préavis 2017/18, p.1, p.20), produces agricultural products for the local population (Rapport-Préavis N° 155, p.25), CSAs can be an interesting alternative for people who do not have their own garden (Préavis N° 2011/04, p.9)
2. Awareness raising: provoking reflection on food sovereignty, means of production and the role of animals, as well as agriculture generally (Rapport-préavis 2017/18, p.1, p.20; PALM 2016, p.150)
3. Educative: education of children (Rapport-Préavis N° 155, p.25), education about nature and culture (Rapport-Préavis N° 2003/37, p.5), farms help teach children about conditions of food production and consumption (Rapport-préavis N° 2014/36, p.12)
4. Proximity to nature: brings people, including children and adolescents, closer to nature (Rapport-préavis 2017/18, p.1, p.20)
5. Ecological: greens the city, improves biodiversity, conserves endangered trees and animals (Rapport-préavis 2017/18, p.1, p.20), local agriculture can reduce emissions from food transport (PDCom Lausanne 2014, p.62), agriculture contributes to climate change through producing 9% of greenhouse gases (Rapport-préavis N° 2014/36, p.11)
6. Socio-cultural: improves social cohesion and solidarity, develops interesting socio-cultural aspects (Rapport-préavis 2017/18, p.1, p.20; PALM 2016, p.150), part of the collective psychology (Rapport-Préavis N° 155, p.25)
7. Heritage: Rovéréaz is linked to the city's heritage (Rapport-Préavis N° 211, p.33), agricultural areas contribute to cultural and natural landscape (PDCom Lausanne 2014, p.59), agricultural areas contribute to the area's identity (PALM 2016, p.267)
8. Economic: production of food including on farms is part of the economic role of nature in the city (Rapport-Préavis N° 2016/27, p.4), local agriculture allows producers to cover their costs and make a living as well as being affordable for consumers (Rapport-préavis N° 2014/36, p.12), periurban agriculture contributes to agglomeration's economic fabric and have economic benefits for the whole agglomeration (PALM 2016, p.129, p.141)

The strategic documents which were searched for information about the general outlook of the city, as well as for the information about framing and strategic goals presented in sections 4-6, are shown in Table 2 below. Information was also taken for these sections from other documents, but only the major documents are listed in the table.

Table 2. Strategic documents related to urban agriculture in Lausanne

| French title | English title (unofficial) | Reference | Report section | Topic |
|---|---|-----------------------------------|----------------|-------------------------|
| Lausanne programme de législature 2016-2021 | Lausanne legislative programme 2016-2021 | Municipalité de Lausanne 2016 | 3 | General |
| Plan directeur communal Lausanne Cahier I | Lausanne municipal master plan | PDCom Lausanne 2014 | 3 | Spatial planning |
| PALM 2016, Projet d'agglomération Lausanne-Morges, de 3 ^e Génération Révisé, Volume A Rapport de projet | PALM 2016, Volume A : Project report | PALM 2016 | 3, 4 | Spatial planning |
| Mise en place d'un Agenda 21 (Politique de développement durable) en ville de Lausanne | Lausanne Agenda 21 (sustainable development policy) (Made up of 7 parts, published in different years) | (see below) | 4 | Sustainable development |
| <i>Première partie : Généralités, patrimoine, bois et espaces verts, environnement, énergie</i> | <i>First part: General, heritage, woods and green spaces, environment, energy</i> | <i>Rapport-Préavis N° 155</i> | 3, 6 | Sustainable development |
| <i>2^e partie: problèmes sociaux et du logement, participation de la population aux décisions la concernant (politique des quartiers) et suivi du développement du bois</i> | <i>Part 2: social and housing problems, participation of the population in decisions concerning them (neighborhood policy) and monitoring of wood development</i> | <i>Rapport-Préavis N° 211</i> | 3, 4 | Sustainable development |
| <i>3^e partie: Finances</i> | <i>Part 3: Finances</i> | <i>Préavis N° 2003/26</i> | 3 | Sustainable development |
| <i>4^e partie: Education et formation</i> | <i>Part 4: Education and training</i> | <i>Préavis N° 2003/37</i> | 3 | Sustainable development |
| <i>6^e partie : Economie</i> | <i>Part 6: Economy</i> | <i>Rapport-Préavis N° 2005/53</i> | 4 | Sustainable development |

| | | | | |
|--|--|----------------------------|------------|-------------------|
| Rapport-préavis: Intentions municipales en matière de nature en ville, Elaboration d'un concept directeur nature | Municipal intentions on Nature in the City, Development of a Nature Master Plan | Rapport-préavis N° 2012/11 | 3, 4, 5 | Nature |
| Mise en œuvre et renforcement de la politique « Nature en ville » : mise en place des mesures complémentaires en matière de végétalisation des toitures, des murs et des facades, de lutte contre les plantes envahissantes, de soutien à l'agriculture urbaine et d'autres actions « nature » innovantes ; soutien au développement du projet de parc naturel périurbain du Jorat | Implementation and reinforcement of the "Nature in the City" policy | Rapport-Préavis N° 2016/27 | 3, 4 | Nature |
| Politique de la Ville de Lausanne en matière de jardins familiaux et potagers ; Plan directeur des jardins familiaux et potagers | Lausanne policy on family gardens and potagers; Lausanne master plan for family gardens and potagers | Préavis N° 2011/04 | 3, 4, 5, 6 | Gardens |
| Réponse au postulat de M. Pierre-Antoine Hildbrand et consorts « Adieu veau, vache, cochon, couvée...chien, chat ? – Pour une étude de la place des animaux domestiques en Ville ». Réponse au postulat de Mme Isabelle Mayor et consorts « Des poulaillers en ville ». Réponse au postulat de M. Romain Felli « Une ville à croquer – des arbres fruitiers sur le domaine public ». | Response to submission of M. Pierre-Antoine Hildbrand and associates. Response to submission of Mme Isabelle Mayor and associates. Response to submission of M. Romain Felli | Rapport-Préavis N° 2017/18 | 4, 6 | Urban agriculture |
| Plan d'action pour une restauration collective municipale avec une haute qualité nutritionnelle, environnementale et sociale. | Action plan for municipal catering with high nutritional, environmental, and social quality | Rapport-préavis N° 2014/36 | 3, 4 | Food |

The Fund for Sustainable Development is a possible mechanism for funding many of the urban agriculture actions that appear in the documents outlined in Table 2. This is because projects qualify for funding through the Fund for Sustainable Development if they fall under one of the priority action areas designated in the Rules of Use of the Sustainable Development Fund, which include maintenance or development of green spaces, agricultural and vineyard areas belonging to the city, maintaining or restoring natural and built heritage insofar as it contributes to the sustainable development and the development of new green spaces (Rapport-Préavis N° 2016/27, p.24). A more specific funding mechanism is the proposal to designate part of the budget of the Service des parcs et domaines (SPADOM) for the continuation of the plantages project and promoting environmentally respectful methods (Préavis n° 2011/04 p.14).

The strategic documents of the city, in addition to showing how the city frames urban agriculture, also reveal that the city has several broad goals for agriculture. These include:

- defining a municipal agricultural policy, and highlighting the role of agriculture through the city's farms (Municipalité de Lausanne 2016, p.14);
- that all actors in municipal catering should adhere to a charter promoting local, ecologically and socially responsible agriculture (Rapport-préavis N° 2014/36, p.1);
- to offer municipal food services that are high quality in taste and nutrition, in the framework of local agriculture that is environmentally respectful and fair (Rapport-préavis N° 2014/36, p.12);
- to prioritize buying directly from producers through supply contracts, particularly for products like milk or flour, which come from city agricultural land, and support the approach of educating guests and related actions (Rapport-préavis N° 2014/36, p.16);
- to manage a network of green, natural and agricultural spaces at agglomeration level, including harmonious coexistence between leisure spaces with high social value and agricultural activities (PALM 2016, p.164);
- to preserve coherent zones for their agricultural, biological, and identity interest, particularly agglomeration parks; develop local processing and distribution of local agricultural products; promote coexistence between urban and agricultural spaces; prioritize urban and periurban agriculture that is respectful of biodiversity (PALM 2016, p.267);
- to recognize the special features of the city's boundary zones, including agricultural areas, and ensure appropriate spatial planning is used (PDCom Lausanne 2014, p.58);
- to protect and valorize existing urban green spaces, including agricultural land (PDCom Lausanne 2014, O-3);
- to consider the place of urban and local agriculture and its functional relationships with the city (PALM 2016, p.150)



4. Allocating resources for urban agriculture

The Good Laws, Good Food report states that: “To help promote urban agriculture, food policy councils should advocate for a range of policies that bring information and resources to urban farmers” (Harvard Law School Food Law and Policy Clinic 2012, p.47). This section first outlines the city of Lausanne’s framing, strategic goals, and actors relating to allocating resources, in sections 4.1-4.3. Sections 4.4-4.7 then each deal with a topical area, and outline the current state of this issue, and then existing and proposed instruments, and projects, relevant to the topic. The topical areas considered are: land access for UA (4.4), fiscal and other support for UA (4.5), training and education for UA (4.6), and public outreach for UA (4.7). The latter sections (4.4-

4.7) are intended to be an inventory of available information and are therefore written in point-by-point format rather than in paragraphs.

4.1 Framing of allocating resources for UA

The city has more explicit framing on the issue of land as a resource compared to other resource issues (e.g. water or financing). The framing seems to be centered on the disparity between people wanting to garden and the amount of available land. Thus, the municipal policy on allotment gardens emphasizes that plantage gardens are “a solution for the future”, due to their smaller size, which allows more people to have a parcel, and additionally makes them more accessible for beginning gardeners. Moreover, their simple layout (absence of cabins, structures) means that they can be relocated relatively easily, making them more adaptable to the demands of city existence (Préavis n° 2011/04 p.6). Rooftop gardens are mentioned as another potential solution for dealing with the high demand, and subsequent long waiting lists, for existing allotment gardens (Rapport-Préavis N° 2016/27, p.19).

Separately from this, the city acknowledges another type of urban agriculture from gardening in the form of fruit trees and orchards. The city has a strategy to plant fruit trees and revitalize historic orchards, which it wishes to pursue and intensify. The reasons for this are to promote local agriculture, reinforce social links within neighborhoods, develop the city’s role as conservator (by dealing with heritage species), and to sensitize younger generations to the topic of seasonal eating (Rapport-préavis 2017/18, p.20).

4.2 Strategic goals for allocating resources for UA

There are two goals for allotment gardens relating to promoting their area. The first is that a goal for allotment gardens is to increase the total area of available land by 31.2% over 10 years, by increasing the area of family gardens by 27% and the area of plantages by 51%. This strategy is divided into five-year time frames, and in the short- and medium-term some decrease in family garden area is planned. The plan is to relocate gardens that must be moved onto reserved land (Préavis n° 2011/04 p.12-13). A second goal is contained in the Agenda 21, and promotes the idea of creating garden plots on areas of land that are earmarked for building, but temporarily unoccupied, as well as interstitial areas. This publication also proposes encouraging landowners to create allotment gardens on their land (Rapport-Préavis N° 2005/53, p.21).

Another goal is related to creating city-community partnerships around urban orchards: The city wishes to plant more fruit trees and develop community partnerships for involvement with each stage of life of an orchard (choosing the type of orchard and the varieties, the planting, care, fruit harvest, processing and distribution). The city will aim to involve local actors, which could be, for example, neighborhood associations or regional producers (Rapport-préavis 2017/18, p.17).

Finally, there are two goals about planting fruit plants. The first is directly related to the city, which set itself the objective of planting around thirty fruit trees each year for the next ten years. As this objective is already regularly met, the next step would be to make the planting participative, notably with children from neighborhood schools (Rapport-préavis 2017/18, p.19). The second goal is to encourage land users (managers, concierges, private owners) and landscaping companies to plant small fruits around the base of buildings (Rapport-préavis 2017/18, p.19).



4.3 Actors involved in allocating resources for UA

City departments

1. Service des parcs et domaines (SPADOM)
2. Eauservice
3. Service du logement et des gérances – managers of potager gardens
4. Service des écoles primaires et secondaires (SEPS)
5. Service d'accueil de jour de l'enfance (SAJE)

Non-governmental organizations

6. Association des jardins familiaux de Lausanne
7. Patrimoine suisse
8. Association Rovéréaz
9. Equiterre
10. La Maison du Nature
11. Fondation Ecojardinage

Land managers

12. Private landowners
13. Managers of community gardens (university, school, non-profit organizations)

Other

14. Commission consultative d'urbanisme et des transports (CCUT)

Table 3 outlines the active instruments related to allocating resources for urban agriculture. These instruments are elaborated upon and referenced in the following sub-sections. These instruments are listed in the following format: *summary name (type of instrument; actor)* – please see p.4 for a further explanation.

Table 3. Active instruments related to allocating resources for urban agriculture in Lausanne

| | Family gardeners | Plantage gardeners | Domestic gardeners | Other gardeners | Professional agriculture |
|--------------------------|--|---|-----------------------------|---|--------------------------|
| Land access | Family garden leasing scheme Fund for Sustainable Development – for allotment creation Family garden rules | Plantage management Plantage leasing scheme Plantage leasing costs Fund for Sustainable Development – for allotment creation | Bee hosting Land sharing | Land sharing | |
| Fiscal and other support | | Water cost plantages | Water billing system | Pilot project rooftop growing Financing of green roofs Water billing system | Water billing system |
| Training and education | Trainings at Rovéréaz • Pimp your balcony • Maison Nature training • Fondation Ecojardinage permaculture courses | | | | |
| | | Plantage trainings | | | |

Text color: Legal • Economic • Design • Communicative

The instruments regulating land access for allotment gardens are legal and economic, whereas for domestic and other gardens they are communicative, which makes sense because domestic gardeners cannot be forced to share their land. The instruments related to concrete resources are economic, and there seems to be little support for inputs for most gardeners. However, there

is some funding for rooftop growing, indicating the city's interest in supporting this newer type of gardening. The educative instruments are, naturally, communicative and most of them are applicable to all types of gardeners.



4.4 Land access for UA

4.4.1 State of land access for UA

There is a long waiting list for gardens (Rapport-Préavis N° 2016/27, p.19).

In 2002, the family garden regulations were updated to take into account the evolution of laws and federal and cantonal legislation (land planning) and city construction regulations (C.35/1-cl – LSP p.2).

Regulations for rooftop agricultural production are stricter than those for extensive management of green roofs; as a consequence of this, and technical constraints, Lausanne has not yet experimented with rooftop agricultural production (Rapport-Préavis N° 2016/27, p.19).

4.4.2 Instruments and actions related to land access for UA

Active instruments

Family garden leasing scheme (legal; Family Garden Association)

Family gardens are leased to members of the Lausanne Association of Family Gardens (Préavis n° 2011/04 p.3). For family gardens, interested people should contact the president of the Family Garden Association of Lausanne (SPADOM 2016d).

Family garden rules (legal; Family Garden Association)

Family gardeners must follow specific rules and statutes. The committees of each family garden site regularly check the parcels and make necessary oral remarks on the enforcement of the rules. Breaking the rules leads to two oral warnings, stating the problem. If no improvement is made, a first and then second written warning is issued. If the problem continues, the gardener can be excluded, according to article 30 of the statutes (C.35/1-cl – LSP p.2).

Plantage management (legal; SPADOM, Service du logement et des gérances ; eauservice)

Plantage and potager gardens are managed, respectively, by the Service des parcs et promenades (now SPADOM) and the Service du logement et des gérances and eauservice (Préavis n° 2011/04 p.3).

Fund for Sustainable Development – for allotment gardens (economic; Unité développement durable)

Creation of new allotment sites is financed by money available through Agenda 21 and the Fund for Sustainable Development (Préavis n° 2011/04 p.13).

Plantage leasing costs (economic; SPADOM)

For plantage gardens, interested people living within 5 minutes of a parcel should contact SPADOM. They must pay 20Fr as a one-time cost and thereafter, 3Fr/m²/year. (SPADOM 2016f).

Land sharing (communicative; SPADOM)

The Lausanne website recommends that people can also contact neighborhood associations, which may have gardens, and also to ask around as perhaps a neighbor would be willing to share their garden. (SPADOM 2016b).

Bee hosting (communicative; SPADOM)

The city website hosts a call for private owners to contact them if they would be willing to have some beehives on their land (managed by a beekeeper) (SPADOM 2016a).

Proposed instruments

Promoting private allotments (communicative; SPADOM)

A method of promoting plantages is promoting the practice on private land by inviting private landowners and property managers to make the residual land surrounding the buildings available to their tenants (Préavis n° 2011/04 p.6).

Domestic garden charter (communicative; SPADOM)

Drawing up a “charter” with landowners, to prepare for integration of cultivable parcels around buildings (Préavis n° 2011/04 p.14).

Other garden types (internal; SPADOM)

Research on new plantage models, e.g. therapeutic garden, integration garden, contractual agriculture (Préavis n° 2011/04 p.14).

Projects

Creating new plantages (design; SPADOM)

Between 2012 and 2016, 4 new plantage sites were created offering parcels to 138 people (Rapport-Préavis N° 2016/27, p.6).

Creating mini-plantage (design; SPADOM)

In October 2015, SPADOM created a mini-plantage at Prelaz (Municipalité de Lausanne 2015).

Land access for Incroyables Comestibles (design; SPADOM)

The city also participated in a project led by Incroyables Comestibles Suisse, partially by giving this organization access to land or raised beds (Incroyables Comestibles 2017).

Financing new allotment gardens (economic; Unité développement durable)

Fund for Sustainable Development supported allotment gardens, including the rehabilitation of 7000m² of land at Bourdonnette, in the “Living together” frame of Agenda 21 (Rapport-Préavis N° 2012/3, Annex 3 p.4) as well as “new plantages” in the “Environment” frame (Rapport-Préavis N° 2012/3, Annex 3, p.6).

Public land inventory for gardening (internal; SPADOM)

An exhaustive inventory of all the land belonging to the city of Lausanne, still available and situated in the urban area, was carried out in order to identify sites that could host gardens (Préavis n° 2011/04 p.10).

New farmers for Rovéréaz (internal; SPADOM)

New farmers, focused on local, organic vegetable production, were chosen by the city to take over the farming of the Rovéréaz estate (Rapport-Préavis N° 2016/27, p.6).



4.5 Fiscal and other support for UA

4.5.1 State of fiscal and other support for UA

The use of water from the municipal network to water gardens is an environmental burden (Préavis n° 2011/04 p.9).

4.5.2 Instruments and actions related to fiscal and other support for UA

Active instruments

Water billing system (economic; eauservice; SSIGE)

In Lausanne, the water bill is composed of a fixed base and a variable part based on water consumed (set by Lausanne) and national VAT tax (Service de l'eau 2017). Water used for watering nurseries and crops are exempt from the purification tax that must be paid by others for water use (Conseil communal de Lausanne 1991).

Water cost plantages (economic; SPADOM)

In the plantages there is a 3CHF fee to pay per m² of garden per year, which is attributed to covering the costs of water usage (SPADOM 2016f).

Pilot project rooftop growing (economic; SPADOM, Unité développement durable)

Lausanne wants to support a pilot project of rooftop growing, with a sum of 150,000 CHF financed through the Fund for Sustainable Development (Rapport-Préavis N° 2016/27, p.19).

Financing of green roofs (economic; SPADOM, Unité développement durable)

1,000,000 CHF were allocated to roof greening of public and private roofs (Rapport-Préavis N° 2016/27, p.23).

Proposed instruments

Supporting plantages (economic; SPADOM)

A method of promoting plantages is through project support, technical advice, possible initial labor, and creation of a regulation (Préavis n° 2011/04 p.6).

Water saving methods in plantages (design; SPADOM)

Recovering rain water through placing barrels, cisterns, or using roofs close to allotment gardens, should be organized to collect water and economize the use of municipal water supply (Préavis n° 2011/04 p.9).

Projects

Drought support (economic; SPADOM)

SPADOM, in August 2015, supported the farmers of Lausanne due to an exceptionally dry period (Municipalité de Lausanne 2015).

Processing installation (economic; SPADOM)

SPADOM installed a milk packaging plant at Saugealles in 2015 (Municipalité de Lausanne 2015).

Rovéréaz renovation (economic; SPADOM, Unité développement durable)

200,000 CHF were allocated for the renovation of Rovereaz in 2001 (Rapport-Préavis N° 211, p.45).

Guide to agriculture North Lausanne (communicative; PALM)

A guide to urbanization and agriculture in North Lausanne was created to encourage good practices and ensure preservation of agricultural heritage (PALM 2016, p.267).



4.6 Training and education for UA

4.6.1 State of training and education for UA

The effects of the plantage charter had not been measured as of 2013, when the city wrote: “it is still a bit too early to measure changes in the practices encouraged by the charter, but assessment is already positive if one considers the interest manifested by the gardeners, notably through their large presence at courses and workshops (C.35/1-cl – LSP p.2). There does not seem to have been an attempt to measure outcomes since then.

4.6.2 Instruments and actions related to training and education for UA

Active instruments

Trainings at Rovéréaz (communicative; Rovéréaz)

The city-owned farm Rovéréaz offers courses in permaculture and composting (Rovéréaz 2017a; Rovéréaz 2017b).

Pimp your balcony (communicative; Equiterre)

The organization Equiterre offers training courses called “Pimp your balcony” to the public, offering theory and training on balcony gardening with the objective of raising awareness among citizens about balcony gardening (Equiterre 2017).

Maison Nature training (communicative; La Maison Nature)

La Maison du Nature offers courses and trainings on ecological construction and ecological gardening as well as participative workshops (La Maison Nature 2017).

Fondation Ecojardinage permaculture courses (communicative; Fondation Ecojardinage)

The Fondation Ecojardinage offers courses in permaculture (Fondation Ecojardinage 2017).

Plantage training (communicative; SPADOM)

Between 2012 and 2016, ongoing awareness-raising and training of plantage users to organic gardening methods occurred (Rapport-Préavis N° 2016/27, p.7). Regular trainings are offered in the plantages on ecological management, aiming for healthy organic production of fruits and vegetables to be the norm across plantages (SPADOM 2016f).

Proposed instruments

Information dissemination (communicative; SPADOM)

Creation and presentation of thematic information boards (on soil, water, fertilizer), circulated in gardens, neighborhoods, schools and hospitals (Préavis n° 2011/04 p.14).

Local organic gardening education (communicative; SPADOM)

Organization of conferences and organic gardening courses in neighborhoods and schools (Préavis n° 2011/04 p.14).



4.7 Public outreach for UA

4.7.1 State of public outreach for UA

No information found.

4.7.2 Instruments and actions related to public outreach for UA

Active instruments

Educational material on food (communicative; SAJE)

Educational material for educational teams and young children, about local agriculture, seasonality, and diet, is being prepared (Rapport-préavis N° 2014/36, p.17).

Proposed instruments

Fruit planting in green space guide (communicative; SPADOM)

The city intends to integrate recommendations about planting fruit trees small fruits around the base of buildings into the two existing guides that are dedicated to the management of green spaces (Rapport-préavis 2017/18, p.19).

Community orchard management (communicative; SPADOM)

When orchards are mature, community members could be involved in managing them, and courses in pruning could be offered at that time (Rapport-préavis 2017/18, p.19).

Local partnerships around orchards (communicative; SPADOM)

The city wishes to develop partnerships with associations or collectives for collecting and processing fruits, also encouraging meetings between local residents. It will promote

collaboration with farmers for the transformation and distribution of fruits (Rapport-préavis 2017/18, p.20). Certain producers from city estates or close neighbors already own juice pressers for apples (mobile or not). As for distribution, links can be created with CSA organizations that are already delivering to households in Lausanne. The flow of apples can also be inserted into the framework of the sustainable municipal catering plan (Rapport-préavis 2017/18, p.20).

Promoting local products (communicative; SPADOM)

A possible action is to promote the offer of local agricultural products to citizens (Rapport-préavis N° 2012/11, p.27).

Projects

Development of classroom garden (design; SPADOM)

The city helped redevelop the perimeter of Montchoisi school and create a vegetable patch for the classes and APEMS to use, created with the help of the classes (Rapport-Préavis N° 2016/27, p.7).

Nature in the City communication tools (communicative; SPADOM)

100,000 for a Nature in the City citizen competition; 100,000 for developing and placing communication tools relating to awareness and mobilization of Nature in the City, including interactive tools allowing the support of civil society actions, for example connecting people with an available garden with people who are interested in gardening, or exchanging services and methods. Through pilot actions of the citizen competition for Nature in the City, the opportunity was offered to schools and neighborhood associations to manage, and plant on, certain pieces of city-owned land (base of trees, flowerbeds, vegetable gardens) and private managers were encouraged to revisit the management of the land at the base of their buildings (Rapport-Préavis N° 2016/27, p.23; Rapport-Préavis N° 2016/27, p.17; Rapport-Préavis N° 2016/27, p.13).

Schulthess brochure (communicative; Patrimoine Suisse)

In connection with the Schulthess prize that Lausanne was awarded, a brochure documenting and promoting the plantages of Lausanne was created (Patrimoine Suisse 2015).



5. Ecological health and urban agriculture

The Good Laws, Good Food report states that: “Food policy councils should work to remediate former brownfields to both reduce potential health impacts” (Harvard Law School Food Law and Policy Clinic 2012, p.47).

This section first outlines the city of

Lausanne’s framing, strategic goals, and actors relating to allocating resources, in sections 5.1-5.3. Sections 5.4-5.8 then each deal with a topical area, and outline the current state of this issue, and then existing and proposed instruments, and projects, relevant to the topic. In addition to site clean-up, this report investigates a selection of other topics pertaining not only to setting up an urban agriculture project but to the way in which it is managed. The topical areas considered are: site clean-up (5.4), compost and waste (5.5), pesticides and fertilizers (5.6), species regulations (5.7), and sustainable practices (5.8). The latter sections (5.4-5.8) are intended to be an inventory of available information and are therefore written in point-by-point format rather than in paragraphs.

5.1 Framing of ecological health and UA

Gardens are variously framed as opportunities to promote beneficial ecological practices, and as sites where problematic (i.e. environmentally harmful) practices can occur.

In terms of positive opportunities, the city recommends organic gardening as being beneficial for soil, human health, and the health of the planet (SPADOM 2016b). In the Nature in the City 2012 report, the city states that certain management practices (promoting indigenous plants, diversified hedges) are beneficial for biodiversity, and cites a US study showing that gardens with native species had significantly higher butterfly and bird diversity than gardens with exotic species (Rapport-Préavis N° 2012/11, p.11). Préavis n° 2011/04 (p.8) also states that, through provision of local fruits and vegetables, gardens can reduce consumption of grey energy.

On the other hand, these same documents (Rapport-Préavis N° 2012/11; Préavis n° 2011/04), also state that some gardening practices, such as using plant protection products, are not environmentally friendly (Préavis n° 2011/04 p.8); gardens can shelter exotic invasive species (Rapport-Préavis N° 2012/11, p.5); and intensively-managed gardens are not beneficial for biodiversity (Rapport-Préavis N° 2012/11, p.11).

5.2 Strategic goals for ecological health and UA

The rates of waste reuse and waste sorting (green waste, plastics, rocks) should be improved in the allotment gardens, based on the results of several inspections (Préavis n° 2011/04 p.9).

Environmental regulations concerning soil and water protection and use of toxic products must be followed as a rule (Préavis n° 2011/04 p.9).

The FOEN (Federal Office for the Environment) created a document in 2006 recommending preparation of a national strategy against invasive species, including regulating trade in plant species on the Black List, developing economic tools based on the 'polluter pays' principle, and raising awareness to prevent and manage invasive alien species – both among the general public and scientists and decision-makers (FOEN 2006).

Lausanne aims to raise awareness among land owners or managers of green spaces to limit new planting of invasive species and decrease the population of already-present invasive species (FIPAV 2015).

A goal for allotment gardens is to improve the biodiversity, soil quality, water management, and reuse of green waste (Préavis n° 2011/04 p.14).

Promoting sustainable management of the land surrounding buildings would encourage these areas to have more biodiversity and contribute to the ecologic network (Rapport-Préavis N° 2012/11, p.17).



5.3 Actors involved in ecological health and UA

City departments

1. SPADOM

Cantonal departments

2. Direction générale de l'environnement (DGE), Vaud (includes the former SESA)
3. Service de l'agriculture et de la viticulture (SAVI) (includes former SAgr and OCV)

Federal departments

4. Office fédéral de l'environnement OFEV
5. Département fédéral de l'économie, de la formation et de la recherche (DEFR)
6. Office fédéral de l'agriculture OFAG
7. Département fédéral de l'environnement, des transports, de l'énergie et de la communication (DETEC)

Non-governmental organizations

8. Family Garden Association
9. JardinSuisse (professional garden business organization)

Businesses

10. Vendors of phytosanitary products

Other

11. Energie-environnement.ch (inter-cantonal service)
12. Centre intercommunal de gestion des déchets - Propreté urbaine (inter-city waste management service)
13. Arbeitsgruppe invasive Neobiota AGIN (governmental working group)

Table 4 outlines the active instruments related to ecological health and urban agriculture. These instruments are elaborated upon and referenced in the following sub-sections. These instruments are listed in the following format: *summary name (type of instrument; actor)* – please see p.4 for a further explanation.

Table 4. Active instruments related to ecological health and urban agriculture in Lausanne

| | Family gardeners | Plantage gardeners | Domestic gardeners | Other gardeners | Professional agriculture |
|----------------------------|---|------------------------|--------------------|-----------------------------------|--------------------------|
| Site cleanup | Contaminated site remediation requirement • Financing of contaminated site cleanup | | | | |
| Compost and waste | Lausanne waste regulations | | | | |
| | | Plantage compost bin | | | |
| Pesticides and fertilizers | Fertilizer labeling and packaging • Regulation on sale of phytosanitary products • Restriction on urban use of phytosanitary products • Restriction on spatial use of phytosanitary products | | | | |
| | Family garden product usage | Plantage product usage | | Products for hives on public land | |
| Species regulations | Awareness among garden professionals about invasives • Recommendations on species – Lausanne • Informational outreach (strategy against invasives) • AGIN list of unsafe plants • AGIN recommendation on labelling • Banned species – DEFR Ordinance • Restricted species – OPP • Prohibition on invasive species in public-land beekeeping • Self-monitoring when issuing species • Duty of information at point of sale (plants) • Banned species – Release Ordinance | | | | |
| Sustainable practices | Family garden information | Plantage charter | | | |

Text color: Legal • Economic • Design • Communicative

Many of these instruments are not site-specific but apply to all types of gardeners and producers. This may be because the instruments were not designed with gardeners or gardening as a specific target audience. However, there are also site-specific ecological instruments which promote a range of “additional” beneficial practices. For example, the plantage charter

promotes different environmentally-friendly practices. The majority of these instruments are legal, but there are also some communicative instruments, which aim to promote beneficial practices that are not legally required but are perceived as beneficial to the environment.



5.4 Site clean-up for potential UA sites

5.4.1 State of site clean-up

FOEN indicator “State of clean-up of contaminated sites”: state ‘medium’, trend ‘positive’. Among 38,000 polluted sites in Switzerland, around 4,000 are contaminated (represent a danger to people and the environment). Investigations must be finished by 2025 and all the sites cleaned up by 2040 (FOEN 2017g).

FOEN indicator “Polluted sites”, state ‘good’, trend ‘positive’. There are 38,000 polluted sites in Switzerland and over 7000 have already been evaluated. For just over half of these, no further action is needed (FOEN 2016d).

5.4.2 Instruments and actions related to site clean-up

Active instruments

Contaminated site remediation requirement (legal; Direction générale de l’environnement (DGE), Vaud)

The federal law states that remediation actions can be considered necessary on the basis of protection of groundwater or surface water, or prevention of air pollution or soil pollution. Polluted sites can be in need of monitoring, remediation, or neither. If they are in need of remediation they are considered "contaminated sites". If monitoring is needed, the authorities will require a monitoring plan and suitable detection measures, applied until no longer needed. For contaminated sites, authorities require a detailed investigation within a reasonable period and the site to be monitored until completion of remediation. Investigation, monitoring and remediation are to be carried out by holder of polluted site or by third parties if caused by them, with approval of the holder. The ordinance is to be enforced by cantons which submit yearly information to the FOEN, which evaluates information and informs public regularly on remediation progress. Alternative courses of action (deviations from normal procedures) can be taken in specific situations (see Art. 24) (RS 814.680).

Financing of contaminated site cleanup (legal; Office fédéral de l’environnement OFEV)

At cantonal level, a special mortgage is earmarked for debts resulting from the contaminated site remediation process. An investment credit ensures cleanup of old communal landfills, "orphaned" polluted sites, and sites polluted by the State. To remediate old polluted municipal landfills, the department responsible for contaminated site remediation issues a grant to communes or groups of communes. The canton ensures and finances the remediation of sites contaminated by industrial or artisanal activities, or accidents, when the responsible parties cannot be identified or are insolvent. The same applies to the clean-up of old private landfills (RSV 814.68).



5.5 Compost and waste from UA

5.5.1 State of compost and waste from UA

FOEN indicator "urban waste", state 'bad', trend 'unsatisfying'. Constant demographic growth and increase in the standard of living has led to an increase in waste that must be incinerated or recycled. Between 1990 and 2014, the quantity of urban waste has increased by 120kg to 729kg per person per year (FOEN 2017c).

FOEN indicator "composition of household waste", state unevaluable, trend unevaluable. Organic waste represents over 30% of household waste (FOEN 2016b).

5.5.2 Instruments and actions related to compost and waste from UA

Active instruments

Lausanne waste regulations (legal; Centre intercommunal de gestion des déchets - Propreté urbaine)

The municipal waste regulations of Lausanne state that organic waste is considered "dechets valorisables". Pesticides, fertilizers etc. are considered "dechets speciaux". Earth, rocks, mud, animal waste, cadavers etc. are considered "dechets particuliers". Separate collection of "dechets valorisables" are organized; decentralized composting of organic waste is encouraged. Households compost organic waste such as branches, lawn, leaves, food waste. If they aren't able to do so, they should deliver them according to municipal directives. The holder of waste pays the cost of their disposal, comprising a base tax, proportional tax (by quantity) and special taxes when applicable (Commune de Lausanne 2013).

Plantage compost bin (design; SPADOM)

At plantages, the users have a right to build a compost bin, collective if possible (FIPAV 2017a).

Proposed instruments

Provision of compost and other bins in allotments (design; SPADOM)

Community compost bin is desirable to promote waste sorting, as well as adapted bins being installed in the allotment gardens (Préavis n° 2011/04 p.9).



5.6 Pesticides and fertilizers: use in UA

5.6.1 State of pesticide and fertilizer use in UA

The recommendations to use plant protection products sparingly in allotment gardens is often not rigorously followed (Préavis n° 2011/04 p.8).

Certain pollutants, such as heavy metals and pesticides from fertilizer and phytosanitary products, can become problematic in the plantages (Préavis n° 2011/04 p.8).

The legal regulations for the storage and use of toxic products are rarely respected (Préavis n° 2011/04 p.9).

Coop and Migros made a voluntary decision to no longer sell products containing glyphosate as of May 2015 (ESH Médias 2015), but other stores (e.g. Jumbo, Hornbach) still sell them (Caldelari 2016).

A study from 2010 showed that most domestic garden owners are unaware of the general restriction on herbicides that took effect in 2001 (Rapport-Préavis N° 2012/11, p.5).

FOEN indicator “Nitrates in groundwater”, state ‘bad’, trend unevaluable. In 2014, between 10-15% of the monitoring stations detected levels above that required by the ordinance on water protection (25mg/l). This is much higher in agricultural areas (40% of the stations in agricultural areas detected excessive levels) (FOEN 2017d).

FOEN indicator “Phytosanitary products in groundwater”, state ‘bad’, trend unevaluable. Phytosanitary products are principally used in agriculture, but also in stadiums, green spaces, and private gardens and along transportation routes, from which they reach groundwater. Around 20% of monitoring stations detected residues from phytosanitary products (active substances and degradation products) at levels higher than 0.1 mg/L – this was higher (70%) in cultivated zones (FOEN 2017e).

FOEN indicator “Sale of phytosanitary products”, state unevaluable, trend unevaluable. In 2014, over 2000 tons of phytosanitary products were sold, including 717.3 tons of herbicide, 1015.7 tons of fungicide, and 365 tons of insecticide (FOEN 2016a).

5.6.2 Instruments and actions related to pesticide and fertilizer use in UA

Active instruments

Fertilizer labelling and packaging (legal; Département fédéral de l'économie, de la formation et de la recherche (DEFR); Office fédéral de l'agriculture OFAG)

It is forbidden to give false or incomplete information on the label and packaging of fertilizers or to omit facts about properties, composition, or usage possibilities of fertilizer that could mislead the buyer or user. There are also rules about what information must be contained on the packaging, labelling, or enclosed documents of fertilizers (RS 916.171). There are further rules on labeling fertilizers for sale in section 3 of the DEFR Ordinance on Fertilizer.

Regulation on sale of phytosanitary products (legal; Direction générale de l'environnement (DGE), Vaud)

It regulates packaging, sale of foreign-made products, labeling, and advertising of phytosanitary products. It specifies that the vendor of these products is obliged to take back the product from the user if they don't wish to use it any longer, and to eliminate it within the rules. For phytosanitary products sold in retail stores, they must be taken back for free. All advertisements must be accompanied with the message "Use phytosanitary products with caution. Before each use, read the label and information concerning the product." The cantons are responsible for monitoring the sale of phytosanitary products and ensuring that they are used according to directions. OFAG only executes these tasks as an alternative (RS 916.161).

Restriction on urban use of phytosanitary products (legal; Direction générale de l'environnement (DGE), Vaud)

Using phytosanitary products as denoted in "l'annexe 5, ch. 1.1 ou ch. 1.2, let. a ou b, ou ch. 2.1 ou ch. 2.2, let. a ou b, OChim101" is forbidden in urbanized zones on surfaces like parks, gardens, sporting and leisure grounds, recreation and play areas as well as in the immediate proximity of health-related buildings. These products can nevertheless be used on areas of agricultural production within urbanized zones (RS 916.161).

Restriction on spatial use of phytosanitary products (legal; SESA, SAgr, OCV)

According to ORRChim (RS 814.81), Annex 2.5, it is prohibited to use plant protection products:

- in areas designated as nature reserves under federal or cantonal legislation, in the absence of provisions to the contrary in the relevant regulations;
- in reed beds and mires;
- in hedges and groves and in a 3 m wide strip alongside hedges and groves;
- in forests and in a 3 m wide strip alongside the stand of trees;

- in surface waters and in a 3 m wide strip alongside surface waters, whereby the strip alongside watercourses for which a space for waters has been specified in accordance with Article 41a WPO² or for which a space for waters has been expressly dispensed with under 41a paragraph 5 WPO is measured from the shore line, and in the case of other watercourses and standing waters from the top edge of the bank in accordance with the buffer strip information sheet «Measuring and managing buffers strips correctly», KIP/PIOCH 2009³;
- in groundwater protection zone S1;
- on or alongside railway track installations in groundwater protection zones S2 and S_h.

It is also prohibited to use herbicides or plant growth control agents:

- on roofs and terraces;
- on storage sites;
- on or alongside roads, paths and squares;
- on embankments and verges alongside roads and railways.

Products for hives on public land (legal; SPADOM)

For hives on public land, users must agree not to use synthetic phytosanitary products (FIPAV 2017b).

Plantage product usage (legal; SPADOM)

The plantage regulations clearly stipulate that plant protection products must be used parsimoniously (Préavis n° 2011/04 p.8).

Family garden product usage (communicative; Family Garden Association)

The Family Garden Association is attempting to raise awareness among members about the problem of environmentally-unfriendly plant protection product usage (Préavis n° 2011/04 p.8).

Proposed instruments

Pollutant awareness raising (communicative; SPADOM)

Information sessions about the dangers of pollutants and explanatory signage should be organized to raise gardeners' awareness. Creating a model garden in each allotment will support this (Préavis n° 2011/04 p.8).

Soil analysis (internal; SPADOM)

Soil analysis of nutrients for information and to amend the soil to allow good plant development should be encouraged and supported (Préavis n° 2011/04 p.9).

Projects

Mon Repos model garden (communicative; SPADOM)

Creation of a model allotment garden, without chemical products, cared for by the relevant service – was done in Mon Repos park in 2009 (Préavis n° 2011/04 p.14).



5.7 Species regulations affecting UA

5.7.1 State of species regulations affecting UA

Out of 3,000 plant species which make up the Swiss flora, 40 of these are considered invasive. However, only 14 of these are forbidden to sell or to plant. This means that, despite the efforts of public authorities, the remaining 26 species are still regularly planted in gardens and green spaces (Rapport-Préavis N° 2016/27, p.17).

AGIN released a Black List (species with high spread potential; damages are high and confirmed) and Watch List (species with medium to high spread potential; damages are medium to high) in September 2014 (Buholzer et al. 2014).

Some invasive species are planted in gardens, as shrubs or ornamental plants (Rapport-Préavis N° 2012/11, p.12).

AGIN recommends that vendors should not sell certain plants that cannot be considered not harmful, and representatives of the branch and JardinSuisse agreed to stop selling these plants (AGIN 2015, p.2).

FOEN indicator “exotic invasive species”, state ‘bad’, trend ‘negative’. In Switzerland, 825 established exotic species are known, 107 of which are considered invasive. The number has continued to increase in the last decades for studied cases (currently only plants) (FOEN 2017a).

5.7.2 Instruments and actions related to species regulations affecting UA

Active instruments

Banned species – DEFR Ordinance (legal; Département fédéral de l'économie, de la formation et de la recherche (DEFR))

DEFR Ordinance on Banned Plants (RS 916.205.1) lists 2 banned species (for which production and issuing is forbidden): *Cotoneaster Ehrh.* and *Stranvaesia Lindl.*

Restricted species – Ordinance on Plant Protection (legal; Office fédéral de l'agriculture OFAG)

Annex 1, section e lists parasitic plants: (particularly dangerous harmful organism, unknown in Switzerland, relevant for all of Switzerland) - *Arceuthobium* spp.; Annex 3 lists goods whose import is forbidden; Annex 6 lists particularly dangerous weeds: *Ambrosia artemisiifolia* L (RS 916.20).

Prohibition on invasive species in public-land beekeeping (legal; SPADOM)

It is prohibited to plant invasive species as part of beekeeping on public land in Lausanne (FIPAV 2017b).

Self-monitoring when issuing species (legal; OFEV)

Vendors (or anyone issuing plants) are responsible for self-monitoring to ensure that plants which are dangerous to humans, animals, or the environment are not sold (RS 814.911, Art. 4).

Duty of information at point of sale (plants) (legal; OFEV, DGE Vaud)

Vendors (or anyone issuing plants) must inform the buyers of the plant's name, how it affects the environment, rules of use or how to use it so it doesn't cause damage, and protection measures in case of involuntary dissemination (RS 814.01, Art. 29e; RS 814.911, Art. 5). This is controlled by cantons (RS 814.911, Art. 48)

Banned species – Release Ordinance (legal; OFEV, DGE Vaud)

Certain exotic invasive species cannot be used in the environment (RS 814.911, Art. 15 al.2; RS 814.911 Annex 2 lists the species). This is controlled by cantons (RS 814.911, Art. 49).

Awareness among garden professionals about invasives (communicative; SPADOM)

The city met with professional horticulturalists and nurseries to present the city's strategy against invasive species and request them to improve the information available to their clients (Rapport-Préavis N° 2016/27, p.17).

Recommendations on species – Lausanne (communicative; SPADOM)

The city of Lausanne website has recommendations on where to buy indigenous plants and seeds of local origin (Ville de Lausanne 2017) and a list of recommended native species for green roofs (Ville de Lausanne 2015).

AGIN list of unsafe plants (communicative; AGIN)

AGIN has published a list of plants for which it is difficult to conclude that they are safe, and recommends that their sale is renounced (AGIN recommendation on restriction of sale, p.1).

AGIN recommendation on labelling (communicative; AGIN)

AGIN published a list of plants from the Black List or Watch List that they recommend should be labelled for sale, and a recommended label for this purpose (AGIN 2015, p.2-3).

Informational outreach (strategy against invasives) (communicative; SPADOM)

Lausanne promotes indigenous species and ecotypes. This is done through various measures: informational material, awareness raising courses, invitation to action days on the ground, exhibitions, information stands. When a problematic situation is detected on private land, the proprietor or manager is informed by mail or direct contact, and invited to intervene. Following delivery of construction permits, an informational flyer on the problem of invasive species is sent to proprietors of projects related to green spaces (construction, demolition/reconstruction, extensions) (FIPAV 2015).

Proposed instruments

Restriction on planting Black List species on municipal land (legal; SPADOM)

Measures aiming to outlaw planting species on the Black List on municipal land will be proposed during the next revision of the rules of general land-use plan (RPGA). Until then an internal directive forbids planting Black List species on public land (FIPAV 2015).

Restrictions on planting on public land (legal; SPADOM)

Leases of gardens or green spaces will have a specific term added, forbidding planting of species on the Swiss Black List. Existing lessees will receive an addendum and an informational flyer (Rapport-Préavis N° 2016/27, p. 18).

Awareness among managers about invasives (communicative; SPADOM)

Information, courses, and action days related to invasive species and targeted at land-owners, managers, or garden and green space users are part of the city's strategy against invasive species (Rapport-Préavis N° 2016/27, p.18).

Awareness among sellers about invasives (communicative; SPADOM)

Garden centers and nurseries in the region will be informed about the city's approach to invasive species, and asked to inform their clientele about invasive species and ask them to consider native and wild species by using the packaging from the garden charter, proposed by Energie-Environnement.ch of the French-speaking cantons (Rapport-Préavis N° 2016/27, p.19). Sustainable practices in UA



5.8 State of sustainable practices in UA

A lot of the land surrounding buildings is managed intensively (frequent hedge trimming, pruning, chemical weeding), which reduces the potential for high biodiversity. Despite the

existence of alternative methods, the use of pesticides and herbicides in these spaces is still high (Rapport-Préavis N° 2012/11, p.17).

5.8.1 Instruments and actions related to sustainable practices in UA

Active instruments

Plantage charter (communicative; SPADOM)

The plantage charter has above all a motivational nature, and relies on trust. It was sent to all gardeners in 2012, inviting them to sign and return it to signal their engagement. Out of 300 gardeners, only 26 didn't sign it; a second reminder will be sent to them. It would be very difficult and probably counterproductive to carry out strict and regular controls. If somebody flagrantly and repeatedly broke the principles of the charter, their right to use the parcel could be withdrawn (C.35/1-cl – LSP p.3).

Family garden information (communicative; Family Garden Association)

Family gardeners attend an information session explaining the need to respect the rules, as well as recommendations relating to use of fertilizers and phytosanitary products. Since 2012, the Family Garden Association of Lausanne has regularly spread awareness among its members to sustainable management (negative effects of excessive synthetic pesticide and fertilizer use) and recommended using compost for soil amendment, and if necessary, natural treatments (C.35/1-cl – LSP p.2-3).

Proposed instruments

Financial incentives for wetlands (economic; SPADOM)

Financial incentives could be a way to encourage private owners to create wetlands in their gardens, as there's no current legal base (Rapport-préavis N° 2017/28, p.14).

Garden charter and quality label (communicative; SPADOM)

Creation of a garden charter and quality label, encouraging gardeners to use environmentally-respectful methods (Préavis n° 2011/04 p.14).

Projects

Insect hotel installations (design; SPADOM)

The city installed 40 large insect hotels in the plantages and in some of the school gardens (Rapport-Préavis N° 2016/27, p.6).



6. Zoning for urban agriculture

The Good Laws, Good Food report states that: “Food policy councils should work to remove zoning barriers to urban farming and animal husbandry” (Harvard Law School Food Law and Policy Clinic 2012, p.46). This section first outlines the city of Lausanne’s framing, strategic goals, and actors relating to allocating resources, in sections 6.1-6.3. Sections 6.4 and 6.5 then each deal with a topical area, and outline the current state of this issue, and then existing and proposed instruments, and projects, relevant to the topic. The topical areas considered are: land use planning for UA (6.4) and animal husbandry as part of UA (6.5). The latter sections (6.4-6.5) are intended to be an inventory of available information and are therefore written in point-by-point format rather than in paragraphs.

6.1 Framing of zoning for UA

Explicit framing related to zoning issues in terms of urban agriculture were not evident. The only specific information that was found is in relation to the proposition of creating more opportunities for citizens to raise chickens in the city. The city’s position on urban henhouses is that they allow citizens to get closer to the realities of agricultural (and/or industrial) production, to ask themselves about farm conditions and to explain nature to children. Hen farming can also inspire reflections on the place of animals and food sovereignty in a society that’s mostly fed by industrial production of meat or eggs. Setting up a small henhouse at home or in the neighborhood allows the population to reflect on issues linked to our food system and to rediscover the link between humans and animals. Community henhouses present the advantage of uniting neighborhood residents around a communal project, and reinforcing social links through planning, building, and/or taking care of the project. There is also an environmental benefit: chickens can consume the amount of food waste produced by one person/day, which means they can recycle household waste and consequently reduce the quantity of organic waste that needs treatment. Chickens also eat insects and weeds and produce a high-quality natural fertilizer (Rapport-préavis 2017/18, p.12). The city additionally considers that hen farming allows: enrichment of discussions on the ethics of farming and feeds reflections on food sovereignty; realization of concrete, fun projects in neighborhoods and animation of urban spaces; provision of local, sustainably produced, eggs and hens (Rapport-préavis 2017/18, p.14).

6.2 Strategic goals for zoning for UA

The city aims to improve social and landscape integration of new garden projects (Préavis n° 2011/04 p.14).

The city states that new family garden sites should be better planned so that they integrate better into the landscape and are more open towards the exterior, but also adapted to new urban constraints, particularly the increasing scarcity of available land. Certain design principles should be respected to fulfill this concept (Préavis n° 2011/04 p.7).

As part of its policy linked to urban agriculture, the city supports the creation of public community henhouses (i.e., installed on public land) and will involve itself as long as the request is made by an association and corresponds to wishes expressed by neighborhood residents (Rapport-préavis 2017/18, p.14).

6.3 Actors involved in zoning for UA

City departments

1. SPADOM
2. Service d'urbanisme
3. Enfance, Jeunesse et Quartiers, Secrétariat general
4. Autorités et Sécurité
5. Bureau des permis de construire de la Ville
6. *Direction des sports et de la cohésion sociale*

Cantonal departments

7. Service de l'environnement et de l'énergie (SEVEN)

Federal departments

8. Office fédéral de la sécurité alimentaire et des affaires vétérinaires OSAV



Table 5 outlines the active instruments related to allocating resources for urban agriculture. These instruments are elaborated upon and referenced in the following sub-sections. These instruments are listed in the following format: *summary name (type of instrument; actor)* – please see p.4 for a further explanation.

Table 5. Active instruments related to zoning for urban agriculture in Lausanne

| | Family gardeners | Plantage gardeners | Domestic gardeners | Other gardeners | Professional agriculture |
|-------------------|--|---|--------------------|--------------------------------------|---|
| Land use planning | Garden zoning • Building in garden zone • Garden shed building | | | | |
| | Gaining access to sites for new allotments | Gaining access to sites for new allotments Building in plantages | | Cost of placing hives on public land | Peripheral zoning for agriculture Building in peripheral agricultural zone Cost for new non-housing buildings permits Tax for new economic activities Roveréaz zoning |
| Animal husbandry | Permission to build henhouse • Building requirements for henhouse • Permission to raise animals • Keeping animals – respecting the peace | | | | |
| | | No animals in plantages | | Keeping bees on public land | |

Text color: Legal • Economic • Design • Communicative

There are zoning instruments that relate both to all types of land use. These, as with the ecological instruments, are part of broader policies that were not formulated specifically with gardens or gardeners in mind but are also applicable to them (e.g. gardening is one type of land use within the city master land use plan). There are also site-specific instruments which regulate what is allowed at each type of garden.



6.4 Land use planning for UA

6.4.1 State of land use planning for UA

The allotment garden sites are situated in the building zone, which means there are trade-offs between keeping the gardens and constructing new buildings, especially due to the fact that densification of urban land is a planning objective at all political levels (Préavis n° 2011/04 p.10).

On the cantonal mapping tool, searching for community gardens or other types of gardens showed that the Community garden of JUL (Jardinage Urbain Lausannois) was zoned as parks and leisure spaces. The Vaud map shows this land is owned by the city of Lausanne.

FOEN indicator “Built surface”, state unevaluable, trend ‘negative’. Between 1979/1985 and 2004/2009, the built surface increased by 585km² (24%). Built surface per capita has increased by 5.1% during the 25 year interval, reaching 407m² currently (FOEN 2015a).

FOEN indicator “Perception of landscape quality in the residential environment”, state ‘good’, tendency unevaluable. Landscape must not only be beautiful and relaxing, but also permit social contact as well as practicing sports or other past-times. 51% of the participants perceive the quality of landscape in their environment to be rather satisfying (7-9 out of 10), and 31% very satisfying (10/10). 13% are neutral (4-6) and 5% not satisfied at all (0 to 3). Further details (subcategories) were also measured (FOEN 2015b).

FOEN indicator “Sprawl”, state ‘bad’, tendency ‘negative’. In 2010, the amount of sprawl in Swiss territory was 22.48 DSE/km² (DSE: settlement units). It has approximately doubled in the 50 years between 1960 and 2010 (FOEN 2016c).

FOEN indicator “Agricultural surface”, state ‘bad’, trend ‘negative’. Because of urbanization and land abandonment due to economic reasons, agricultural land in Switzerland has decreased by 11,821 hectares between 2003 and 2013 (4.2%). This trend can only be considered as negative: on one hand, food production must be conducted intensively on smaller surfaces, on the other hand, urbanisation is definitively reducing productive land (FOEN 2017f).

FOEN indicator “Degree of self-sufficiency in food”, state unevaluable, trend unevaluable. The level was slightly under 60% in 2013 (FOEN 2017b).

FOEN indicator “Land use”, state unevaluable, trend unevaluable. Between 1979/85, 1992/97, and 2004/09, living and infrastructure areas have increased, agricultural surface has decreased, wooded area has slightly increased, and unproductive areas have very slightly decreased (FOEN 2015c).

6.4.2 Instruments and actions related to land use planning for UA

Active instruments

Gaining access to sites for new allotments (legal; SPADOM)

Certain actions are required to gain access to these sites, including new partial land-use plans, breaking leases, purchasing the land, removal of the right-of-way (Préavis n° 2011/04 p.11-12). The municipal garden policy states that it will be followed by several partial zoning plans, guaranteeing the long-term activity of gardens in neighborhoods (Préavis n° 2011/04 p.1).

Garden shed building (legal; Bureau de permis de construire)

Garden sheds with a maximum area of 8m² can be built without planning permission, but certain documents must still be submitted to the city to ensure no other interests are affected (RSV 700.11.1, Art. 68a).

Cost of placing hives on public land (economic; SPADOM)

The cost of planning and eventual removal of hives and installations related to them, as well as restoring the land to perfect condition, are the responsibility of the beneficiary. The cost of installing the hives will not be charged to the beneficiary (FIPAV 2017b).

Cost for new non-housing buildings permits (economic; Service d'urbanisme)

The cost for a building/renovation permit for non-housing buildings is 2.6% of the CFC 2 cost, with a minimum of 300 CHF. The preliminary application for a construction permit is 30% of the tax identified above with a maximum of 900 CHF (Municipalité de Lausanne 2010).

Tax for new economic activities (economic; Direction des sports et de la cohésion sociale)

Necessary to pay a tax for new economic activities in order to finance public transport, according to determined floor area (37 CHF/m² for newly legalized activities) (Commune de Lausanne 2015).

Garden zoning (design; Service d'urbanisme)

The main Lausanne land-use plan has 11 zones. The parks and relaxation spaces zone is assigned to green spaces, playgrounds, family gardens, plantages, and cemeteries. Certain areas are regulated by special zoning plans (partial land-use plans, neighborhood plans, partial extension plans, cantonal land-use plan, etc.) (Ville de Lausanne 2006).

Building in plantages (design; SPADOM)

In plantages, gardeners should not build anything except installing a toolbox and compost site, to be shared if possible, and should not have any fixed elements like a covered shelter, tables, fences, paving stones, or barbecue (FIPAV 2017a).

Building in garden zone (design; Service d'urbanisme)

The parks and leisure spaces zone designated in the main land-use planning document of Lausanne can include building small constructions like aedicule, small pavilions, kiosks, refreshment stalls, and technical premises. Annex 5 gives an overview of what buildings are allowed in different zones in Lausanne (Ville de Lausanne 2006).

Peripheral zoning for agriculture (design; Service d'urbanisme)

In the land use plan for peripheral city zones (Plans d'Extension concernant les régions périphériques et foraines de Lausanne), there is a designated agricultural zone which is reserved for agricultural use and directly related activities (Commune de Lausanne 1980). There are other examples of Plan Partiel d'Affectation which include agricultural zones (e.g., n° 652).

Building in peripheral agricultural zone (design; Service d'urbanisme)

In the agricultural zone in the peripheral regions zoning plan, the constructions and facilities authorized in this zone are the following: buildings, facilities and constructions related with a farm; dwelling for the farmer, family and staff; constructions and facilities of public interest or indispensable for public service, as long as they are small and integrated into the site. Other constructions can be authorized by the city (see Art. 41 for details) (Commune de Lausanne 1980, Art. 39-41).

Roveréaz zoning (design; Service d'urbanisme)

The city decided to zone Roveréaz as a green zone with possible agricultural usage, to prevent the urbanization of the area (Rapport-Préavis N° 155, p.28).

Proposed instruments

Greening rooftops (design; SPADOM, Service d'urbanisme)

New PPAs and PQs (Plans partiels d'affectation et plans quartiers) will require private and publically-owned flat roofs to be greened, with the exception of special cases including rooftop gardening (Rapport-Préavis N° 2016/27, p.10).

Systematic integration of plantages in planning (design; SPADOM)

A method of promoting plantages is systematic integration of plantages as an element of the specifications while planning new residential neighborhoods (Préavis n° 2011/04 p.6).

Integrating family gardens into urban fabric (design; SPADOM)

Improving the landscape integration of family gardens into the urban fabric by structured planting, and reducing the number of cabins, to be replaced by a shared shelter (Préavis n° 2011/04 p.14).

Integrating allotment gardens into routes (design; SPADOM)

Integration of allotment gardens into routes and walks (Préavis n° 2011/04 p.14).

Meeting spaces in allotments (design; SPADOM)

Promoting togetherness between gardeners and walkers in cultivated spaces through creating meeting spaces (Préavis n° 2011/04 p.14).



6.5 Animal husbandry as part of UA

6.5.1 State of animal husbandry as part of UA

There are slightly under 1000 livestock animals in the city (421 cows, 188 equines, 204 sheep, 17 goats, 33 pigs, 55 poultry, 38 others). Approximately 100 of these belong to the city (4 cows, 5 goats, 12 pigs, 80 sheep). The city also raises a rare breed of hens at Sauvabelin animal park, and has 12 beehives located in different parts of the city. The city spends approximately 170,000 CHF on personnel and 8,000 CHF on food and various other costs for the livestock at Sauvabelin (Rapport-préavis 2017/18, p.3-4).

The city is considering having ProSpecieRara farm animals in one of the two aviaries of Mon Repos, which would allow the city to participate in conserving local threatened species, while concentrating future renovation works on only one aviary, reserved for exotic birds (Rapport-préavis 2017/18, p.13).

Two community henhouse projects, initiated by neighborhood associations, are currently under study. As part of the transformation of the future community center in Desert, the participative approach brought to light the desire of the residents, and of the Boisy sociocultural center, to renovate the old henhouse and to use it for its original function. The management would be entrusted to the association or to the organization which will be responsible for the community center. The other project is that, as part of the plantage project in Vallon, residents expressed a desire to install a community henhouse, managed by the neighborhood association. These two projects have the common feature of engaging neighborhood associations, a key, precious commitment for the city (Rapport-préavis 2017/18, p.13).

6.5.2 Instruments and actions related to animal husbandry as part of UA

Active instruments

Installing a henhouse (legal; SEVEN)

Installing a henhouse requires the permission of a building authorization, subject to public inquiry (RSV 814.01).

Permission to build henhouse (legal; Bureau des permis de construire de la Ville)

Anybody (person or association) who wishes to install a henhouse must file an application for a permit at the Office of Building Permits (Bureau des permis de construire de la Ville) (Rapport-préavis 2017/18, p.13).

Building requirements for henhouse (legal; Cantonal Service for Energy and Environment)

Henhouses must be built a minimal distance of 20m away from housing, according to cantonal service for energy and environment (Rapport-préavis 2017/18, p.13).

No animals in plantages (legal; SPADOM)

The plantage regulations state domestic animals should be kept out of plantages (FIPAV 2017a).

Keeping bees on public land (legal; SPADOM)

A permit can be obtained from the city of Lausanne to use a section of public land to keep 3 hives. The beneficiary of the permit must follow certain conditions (informing SAL and hive inspector of the number of hives; indicating 'honey produced on the Commune of Lausanne' on the packaging; working with environmentally-friendly practices and not using synthetic chemical products - among other conditions) (FIPAV 2017b).

To have a hive on public land in Lausanne you must: (FIPAV 2017c)

- live in the city of Lausanne, be experienced and a member of the Apiculture Society of Lausanne
- accept the conditions of use for public land
- contact SPADOM to look into possibilities of an available space
- sign a permit for usage of public land
- set up on the site chosen in coordination with SPADOM

The permit is of indefinite length, to be renounced in writing at any time

Permission to raise animals (legal; OSAV)

If raising more than 150 laying hens, 200 chicks, or 500 broiler hens per year (but less than 10 UGB), the responsible person must have an attestation of competence. Art. 66-67 specify required area, equipment and lighting conditions to keep poultry (summarized in Table 9). There must either be 5m² of pasture or 10m² of garden per animal (RS 455.1).

The federal law (RS 455.1) states that anyone responsible for managing more than 10 UGB (unités de gros bétail) must take an agricultural training defined in Art. 194. (agricultural training recognized by a federal attestation on professional training or federal certificate of

competence; farmer training recognized by a specific diploma; agronomy training recognized by the diploma of a specialized college; any equivalent training in a profession specialized in agriculture. (There are also equivalents e.g. 3 year minimum on-farm activity). With smallholdings of less than 10 UGB the responsible person must hold an attestation of competence conforming to Art. 198, to be able to have:

- more than 3 pigs or more than 10 sheep or 10 goats; young unweaned animals don't count towards the number
- more than 5 horses; unweaned foals don't count towards the number
- cattle as well as alpacas or llamas
- rabbits, if more than 500 are born per year
- domestic poultry, if raising more than 150 laying hens or producing more than 200 chicks or 500 broiler hens per year

Keeping animals – respecting the peace (legal; Autorités et Sécurité, Lausanne)

Article 47 of the Municipal Police Regulation requires animal keepers to respect the calm of the neighborhood, including keeping animals enclosed between 19h-7h and ensuring roosters aren't crowing at dawn (Municipalité de Lausanne 2001).

Proposed instruments

Henhouse information dissemination (communicative; SPADOM)

The city has decided to create a new website, presenting information for residents, associations, and individuals who would like to create community, semi-private, or private henhouses. Additionally, the city will appoint a resource person (being, for example, part of an association for aviculture) who will be able to advise and help residents, associations, and individuals who wish to conduct an urban henhouse project. The city plans to communicate additional information to citizens interested in urban hen raising, on the topic of health and how to prevent issues (Rapport-préavis 2017/18, p.13-14).

Projects

Grand-Vennes Educational Landscape project (design; Enfance, Jeunesse et Quartiers, Secrétariat général, Lausanne)

A 4-year project (2015-18) "Educational Landscape" is planned in the neighborhood Grand-Vennes, to include raising sheep and goats (Jacobs Foundation et al. 2017).



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