HORTICULTURAL ACTIVITIES WITH LASTING IMPACT ON URBAN COMMUNITIES, IN THE CONTEXT OF COVID 19 LOCKDOWN

ACTIVITĂȚI HORTICOLE CU IMPACT DURABIL ASUPRA COMUNITĂȚILOR URBANE, ÎN CONTEXTUL IZOLĂRII COVID 19

ZLATI Cristina¹, PAȘCU Roxana^{1*}, BERNARDIS R.¹

*Corresponding author e-mail: ing.dr.roxana@gmail.com

Abstract. Horticultural activities in urban areas and suburbs describe economically viable ways of production (North and Patterson, 2018), and are a continuous growing segment of production in developing countries as well as in Romania countries and are expected to have positive impacts on nutrition quality first and implicit on people's health. This comes as a necessity as the population is continuously growing as the land has a limited use.

In a wide sense, urban horticulture includes everything from small home and community gardens to city park management, rooftop greening, as well as complex vertical way of production.

This sector assures increased availability of fresh products (vegetables and fruits) in big cities, healthier diets, improved food safety, low transportation costs, efficient resource use, and the mitigation of environmental impacts of horticultural production such as the emission of greenhouse gases.

Key words: fruit growing, urban horticulture, community, lasting impact, Covid 19

Rezumat. Activitățile horticole din mediul urban și suburbii descriu modalități de producție viabile din punct de vedere economic (North și Patterson, 2018) și reprezintă un segment în continuă creștere în țările în curs de dezvoltare, precum și în România și au un impact pozitiv asupra alimentației și sănătății oamenilor. Acest lucru vine ca o necesitate, deoarece populația este în continuă creștere, deoarece terenul are o utilizare limitată. Într-un sens larg, horticultura urbană include totul, de la grădini mici pentru casă și comunitate până la gestionarea parcului orașului, ecologizarea acoperișului, precum și un mod complex de producție verticală. Acest sector asigură o disponibilitate sporită a produselor proaspete (legume și fructe) în orașele mari, o alimentație mai sănătoasă, o siguranță alimentară îmbunătățită, costuri reduse de transport, o utilizare eficientă a resurselor și atenuarea impactului producției horticole asupra mediului, cum ar fi emisiile de gaze cu efect de seră.

Cuvinte cheie: pomicultură, horticultură urbană, comunitate, durabil, Covid 19

INTRODUCTION

Urban horticulture concept is widely congruent with the terms urban agriculture or urban farming. Urban horticulture is both a site characterization and a production strategy (Eigenbrod and Gruda, 2015) and in the actual pandemic

¹Iași University of Life Sciences, Romania

context it could be a good strategy for population to cope with the stress (Goodyear, 2015; Jarrott and Gigliotti, 2010) and other problems related to the lockdown.

Urban horticulture brings together what used to be widely separated: food production and urban space. In other sense, urban horticulture encompasses everything from small home and community gardens to city park management, rooftop and wall greening, as well as complex vertical farms. In a narrower sense, noncommercial uses are excluded, and the term refers to economically viable horticultural activities that are conducted in a city or suburb (Ohyama *et al.*, 2008).

MATERIAL AND METHOD

It is already accepted that vegetation and hand work (horticultural work included) bring meaning in people's life, in the sense of creating significance or identity for individuals or even groups.

Further, we can describe horticultural activities as horticultural therapy or "social and therapeutic horticulture" (Goodyear et al., 2012; Huxmann, 2015), activities that induce healing processes, while providing space for relaxation as well as exercise, more than ever before.

First, these type of therapies were directed to particular groups of people, often voulnerable, as eldery, desabled, people with different adiction, prisoners (Gasperi *et al.*, 2015). Therapeutic and social role are both related.

For the present research there was practiced observation and presence during performing different horticultural activities, as described in figure 1. The presence was practiced in order to observe the feelings that emerge from working with plants and soil.

Plants influence on people works on different ways of perception as they come in different size, shape, color, fragrance, taste and texture.

A wide range of feelings could be identified: relaxation, tranquility, gratitude, wellness, peacefulness, reflection but also motivation, satisfaction, joy, encouragement, empathy, serenity, hope, self-confidence.

The positive effect of green spaces is already known but the link between occupational therapy in fresh air and healing is not fully understood there for, further research is needed.

RESULTS AND DISCUSSIONS

Horticultural activities are expected to have positive impacts on nutrition quality first and implicit on health. The global nutrition transition describes large changes in dietary and physical activity patterns of rural dwellers in developing nations migrating to urban areas (Van den Berg and Van den Berg, 2015).

Previous research has shown that an understanding of the horticultural plants and horticulture based activities can lead to improving the ways of sustaining people's health, well-being and quality of life (Aldous, 2015).

Figure 1 describes the main characteristics of horticultural plants and activities and their potential impact on human psychic. All are interrelated and generate a wide range of positive emotions.

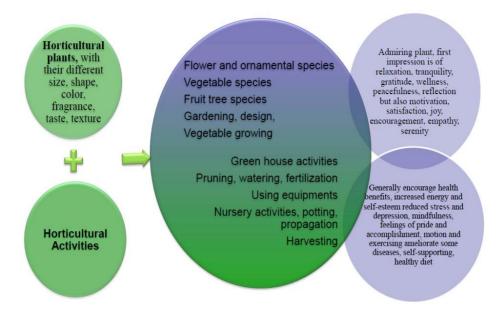


Fig. 1 Horticultural activities characteristics and the potential impact on human psychic



Fig. 2 Green houses activities



Fig. 3 Environmental and child friendly activities

Figure 2 illustrate some of the horticultural activities that could be easily performed, while figure 3 shows the positive effect on children of the outdoor activities and in the same time bring them knowledge about nature, raising awareness and connection with nature.

Further studies can explore how the concept can be applied to deepen understanding the need of a therapeutic intervention.

CONCLUSIONS

Keep population and implicit comunity, involved in activities that have a positive efect on their health.

Developing a plant production system that needs fewer pesticides and fertilizers also contributes to a healthier diet.

Production has higher availability for local consumption (shorten the transport distances), meaning more fresh and healthy food for population. Environmental friendly as reduced CO_2 emissions in the product transport process.

Use natural resources effectively increase awareness and connection with nature. Provides information for the consumers.

REFERENCES

- Aldous D.E., 2015 Reviewing the attributes of quality plants and therapeutic landscapes associated with special populations. Acta Hortic. 1093, 153-160 https://doi.org/10.17660/ActaHortic.2015.1093.17.
- 2. Eigenbrod C., Gruda N., 2015 Urban vegetable for food security in cities. A review Agron. Sustain. Dev. 35:483–498 DOI 10.1007/s13593-014-0273-y.
- Gasperi D., Giorgio Bazzocchi G., Bertocchi I., Ramazzotti S., Gianquinto G., 2015

 The multifunctional role of urban gardens in the twentieth century. The Bologna case study. Acta Hortic. 1093, 91-98, https://doi.org/10.17660/ActaHortic.2015.1093.9.
- 4. Goodyear S.N., 2015 Teaching environmental press for deepening understanding and application of horticultural therapy to senior populations. Acta Hortic. 1093, 37-46 DOI: 10.17660/ Acta Hortic.2015.1093.3.
- 5. Goodyear S.N., MacLeod K., Relf D., Jarrett S., 2012 An activity layout template as a tool for designing and implementing horticultural therapy activities. Acta Hortic. 954:133-137. http://www.actahort.org/books/954/954_15.htm.
- Huxmann N.J., 2015 When green became healthy. Acta Hortic. 1093, 161-168 https://doi.org/10.17660/ActaHortic.2015. 1093.18.
- Jarrott S., Gigliotti C., 2010 Comparing responses to horticultural-based and traditional activities in dementia care programs. Am. J. Alzheimer's Disease & Other Dementias 25(8):657-665.
- 8. North M.G., Patterson E. Sara, 2018 Lasting impacts in a rural community through horticultural activities, J. Hortic., 5:2 DOI: 10.4172/2376-0354.1000231.
- 9. Ohyama K., Takagaki M., Kurasaka H., 2008 Urban horticulture: Its significance to environmental conservation. Sustain. Sci., 3:241–247 DOI 10.1007/s11625-008-0054-0.
- **10. Van den Berg A.E., Van den Berg M.M.H.E., 2015 -** Health benefits of plants and green space: establishing the evidence base. Acta Hortic. 1093, 19-30 DOI: 10.17660/ActaHortic.2015.1093.1.