

Project:



Market study
Ukrainian floriculture and ornamental sector
SHORT REPORT

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INTRODUCTION

The market study has been initiated by Embassy of the Kingdom of the Netherlands in Ukraine in the framework of Private Sector Development program (PSD). The **main objective** of the study is to obtain information and insight on the floricultural and ornamental sector of Ukraine, its development, business opportunities and challenges. An **additional study objective** is to get information in order to start a dialogue with Ukrainian authorities on improving climate for business development in the sector and removing trade barriers. The study:

- describes current situation on the market of flowers and ornamental plants in Ukraine;
- defines key players in each product group ;
- analyzes current legislation including land market, registration of varieties, protection of the breeders' rights, etc.;
- analyzes available statistic data on international trade of Ukraine in flowers, ornamental plants and planting material;
- distinguished possibilities for market development in Ukraine;
- defines opportunities and challenges for Dutch-Ukrainian cooperation;

The **product groups analyzed** in the study:

- cut flowers;
- planting material (seed, bulbs, seedlings);
- potted plants (indoor);
- ornamental plants (shrubs, trees and other plants for landscape design).

Problem description: currently, there is no systematic and open information on the Ukrainian market of flowers and ornamental plants. At the same time the market operators observe significant improvements in the sector since political and economic crisis in Ukraine of 2014. Over the last two years the market of flowers and ornamental plants has begun to grow and shows a gradual development in local production, trade and consumer demand. These positive changes have contributed to the growing interest to Ukrainian market from the Dutch and international suppliers of floricultural and ornamental sector. The Netherlands is the main supplier to Ukraine of flowers and ornamental plants, the country takes the leading position in the supply of the technologies and equipment for local production.

The Netherlands, as well as Poland and Belarus is also an important import partner of Ukraine, where to the locally produced flowers and ornamental plants are supplied.

But along with positive changes, market development is influenced by a number of factors:

- Closure of the Russian market and trade cessation, which is the reason why exporters of Ukrainian products are considering other markets for cooperation, among which are countries of the European Union.
- Problem with registration of plant varieties and protecting the breeders' rights, due to a lack of compliance with EU standards.
- Big number of small and non-professional local producers (household) in the sector causes lack of

transparency, low quality of domestic products and irregular supplies. Insufficient role of local sector organizations in sector lobby and development, poor interactions and communication of market players.

- Trade barriers caused by bureaucracy, inefficient customs procedures, corruption.

Despite of visible challenges the Ukrainian market is very promising for the Dutch. This market study will help all interested companies from the Netherlands to understand the peculiarities of Ukrainian market and to use the existing opportunities for developing cooperation and partnership with Ukrainian companies.

Study methodology and tools:

- ✓ Desk research:
 - analysis of open sources of information: trade statistics for 2015-2017 (statistics for 2018 will be available from April 2019);
 - analysis of legislation;
 - analysis of information from the official sites, catalogues, promo materials of the key market players;
- ✓ Expert interviews with the representatives of the sector;
- ✓ Attending specialized events, trade shows and conferences, analysis of expert reports and opinions:
 - Green Conference 2017, International conference on ornamental plants (December 2017);
 - Flower Expo 2018 (April 2018);
 - Bus tour across Ukrainian nurseries (July 2018);
 - Garden Festival (August 2018).

While visiting the events and trade shows the observation maps aimed on the analysis of the product range available on the market have been filled in. In total 26 experts have been interviewed and 7 observation maps have been completed.

The interviews experts are the representatives of the key companies from every product category of the sector, they have long-time experience in local and international flower business and their opinions and views reflect the current state of affairs in Ukrainian floricultural and ornamental sector. Some respondents expressed their expert opinion in several categories of products.

It took 6 months to agree on interviews and to carry them out: the first interview was done in mid-April 2018, and last in October of 2018.

Executors of the Market Study:

- Kateryna Melashchenko, Project Leader, Kleffmann Group Ukraine;
- Yevheniia Slozka, Project Manager and moderator of expert interviews, Kleffmann Group Ukraine;
- Nadia Ghazali, Statistical Data Analyst, Kleffmann Group Ukraine;
- Iryna Belobrova, President of Ukrainian Florist's Society;
- Roman Hrab, Legal Consultant, Ukrainian Agribusiness Club.

The biggest challenge for the executors of the study was establishing of personal contacts with the potential

respondents and persuading them to take part in the interviews. The market of flowers and ornamental plants, like some other sectors of Ukrainian economy, is not transparent, which affected the openness of respondents, many of whom refused to cooperate and disclose information related to their business. This is the reason why the market volume is mostly estimated based on the data from open sources combined with the experts opinion and analysis of Kleffmann Group data specialists.

The provided information was approved by all the experts who participated in the study.

ANALYSIS OF UKRAINIAN EXPORT-IMPORT TRADE BALANCE IN FLOWERS, PLANTING MATERIALS AND ORNAMENTAL PLANTS

- Ukrainian market of flowers and ornamental plants is import dependent: most of the cut flowers, significant share of potted plants and planting materials (bulbs, flower seeds) are imported; flower seedlings are partially imported and partially grown in Ukraine from imported planting material. Taking into consideration the specifics of the production of the ornamental plants, the share of import in this segment is small as the imported products require further nursing.
- It is worth mentioning that the data of State Statistics Service of Ukraine does not reflect the overall market situation due to illegally imported plants, so below mentioned numbers do not include full value of imported plants. According to the interview experts, official trade statistics from 10% to 90% (depending on product category) differs from the real trade figures, though experts expect decrease in illegal product import.
- Based on the data of the [State Statistics Service](#), Ukraine has imported floricultural and ornamental products for 18,7 mln. USD in 2017, which is +23% compared with 2016. The Dutch share in total Ukrainian import of floricultural and ornamental products is 64% (11,9 mln. USD).
- 75% of imported goods in 2017 were flowers and 25% were ornamental plants. A half (49%) of imported flowers were cut flowers, 29% – potted plants / indoor plants and 19% – bulbs.
- Import of the ornamental plants also increased by 53% in 2017 vs. 2016 (when there was a significant drop in the import) and reached 4,7 mln. USD.
- Most of the locally produced flowers and ornamental plants are distributed on the territory of Ukraine. the export volume is insignificant.
- According to national statistics, roses are the main flowers: 70,1 mln pcs. Of cut fresh roses were produced in 2017, 99% of these roses were produced by the professional enterprises. Tulips are following not far behind after roses, 1,2 mln. of tulips were produced in 2017, and 66% of them were produced by the professional growers. In the niche categories of cut flowers household (by non-professional growers) production prevails: chrysanthemum, carnation, gladioluses, asters, peonies etc.
- Ukraine ranks approximately N75 in the list of world exporters of ornamental plants and flowers and has a share of 0.02% in the world exports in the segment which was 1 mln. USD in 2017. Ukrainian export is not stable while total volume and value tripled in 2016 vs. 2015, the next year it decreased by almost ¼.
- Ukraine exports its floriculture and ornamental plants to 8 countries. 63% of the Ukrainian export (by value) was to European Union in 2017, 36% was to CIS countries. In 2017 59% of plants have been exported to Poland and 30% to Belarus.

- The overall increase of world demand for floricultural products indicates the prospects for Ukrainian export: such key importers as Netherlands, USA and EU countries increase their import.. Ukraine has prospects for the increase of its export but only in case of stable production, quality and compliance with all requirements of importing countries.
- As of 2017, the Ukrainian export consisted mainly of flowers (87% of value and 74% of volume). The share of ornamental plants was only 13% of the export value. 98% of all cut flowers were roses. The total value of Ukrainian export of fresh cut roses amounted 860 ths. USD in 2017. Export of the ornamental plants consists of the ornamental roses 70% in export value, other 30% include various trees, shrubs and bushes. Ukraine continues to improve export of ornamental roses: each year export value increases threefold. Ascania-Flora and Camellia are the biggest exporters of cut flowers. In the sector of ornamental plants, the biggest companies are Kornelis, Nova Hvylya and Dekoplant.

LEGAL FRAMEWORK OF DOING BUSINESS IN UKRAINE

- In order to receive land plots for growing flowers and ornamental plants it is necessary to use land plots of the category "land for agricultural use"; the land should also be used in accordance with its category, type and specification. Violators of this norm are subject to administrative liability. All information on the **category, type of use, specification** and other parameters of the land plots are listed in the registration documents and on the public cadastral map.
- Foreigners and foreign legal entities are banned to acquire agricultural land in their ownership.
- The majority of land plots which are currently used by agricultural enterprises is leased. The term of agricultural land lease may not be less than 7 years and longer than 50 years. More detailed information at the link: http://www.ucab.ua/en/doing_agribusiness/umovi_vedennya_agrobiznesu/zemelni_pitannya
- There are two the most common ways of acquiring a land plot: purchasing of agricultural land plots free from moratorium(1) and leasing (2).
- 1) Currently, in Ukraine there are around **2 million** hectares of agricultural land available for sale. . These land plots are specified ' for individual farming. It can be difficult to find and purchase the land plots located near each other. The purchase of land plots by foreign businesses is possible in case they have Ukrainian representative or create a Ukrainian company with foreign investments.
- 2)The procedure of leasing land plots of private and state property is different. The term for land lease may not be less than 7 years and more than 50 years.
- Among other ways of acquiring a land plot are the following: purchase of an enterprise that owns or uses land, purchase of emphyteusis agreement and conclusion of a sublease agreement.
- According to the Law of Ukraine "On the Protection of Rights on Plant Varieties", the following types of rights may be acquired on plant varieties: personal non-proprietary intellectual property rights for plant varieties,

intellectual property rights on plant varieties, intellectual property right for the plant variety distribution. Since 2006, Ukraine has acceded to the *International Convention for the Protection of New Varieties of Plants*¹, and the national legislation complies with the requirements of this Convention in relation to the registration and protection of the rights to varieties.

- Imports of goods to the territory of Ukraine and customs formalities shall comply with the [Customs Code of Ukraine](#).
- In order to protect the domestic market of Ukraine from low-quality goods or unfair competition, imported or exported goods may temporarily apply special types of duties: **antidumping duty, compensation duty and special duty**. These types of duties are applied as a results of the investigation by the appropriate commission of the Customs Authority.
- Foreign-economic activity related to import is carried out in compliance with the **Ukrainian Classification of Goods for Foreign Economic Activity** (ukr. УКТЗЕД), which is created on the basis of the **Harmonized Commodity Description and Coding System** (the international nomenclature of goods developed by the World Customs Organization). Ornamental plants according to Ukrainian Classification are included into **group 06** "Live trees and other plants; bulbs, roots and other similar parts of plants; cut flowers and ornamental foliage".
- In addition to paying customs duty, goods imported to Ukraine are subject to 20% . The basis for taxation is the contract value of the goods, but not lower than the customs value of the imported goods, taking into account customs duties and excised taxes, which are included in the value of the goods.
- There is also a single fee that is set for commercial vehicles crossing the border of Ukraine and charged for the determined by law proper control of goods and vehicles. Single fee rates are set by the law in euros and cannot be changed during the fiscal year.
- The general list of documents for customs clearance includes: customs declaration, contract; commercial documents (invoice); documents confirming the country of origin of the goods (certificate of origin, declaration of the sender, etc.); documents used to determine the customs value of the goods (bank payment documents, relevant accounting documents, catalogs, specifications, price lists, etc.) and documents on the vehicle.
- In the case of imports of seeds, flowers, plants, horticultural material and other categories of plant products its necessary to provide seed certificates (ISTA, OECD), as well as phytosanitary/quarantine documents issued by the authorities of origin country. Preliminary documentary control is carried out by the customs authorities. Standard phytosanitary border control is carried out by state phytosanitary inspectors.
- [State Service of Ukraine on Food Safety and Consumer Protection](#) designates a specific percentage of consignments that are subject to compulsory extended phytosanitary control. This percentage is based on data

¹ <http://www.upov.int/upovlex/en/conventions/1991/content.html>

on the detection of quarantine organisms in consignments and on the basis of other factors that can affect life and health of plants, taking into account the results of risk analysis.

- There are three main types of taxes and fees in Ukraine: corporate income tax , unified tax , unified social tax for social insurance . Tax rates differ based on type of company registration. In addition, there is an indirect value added tax in Ukraine. More detailed information at the link: http://www.ucab.ua/en/doing_agribusiness/umovi_vedennya_agrobiznesu/opodatkuvannya
- In order to register foreign investments in Ukraine, a foreign investor must register a legal entity on behalf of which it will carry out investment activities. Limited liability legal entity is common among investors and convenient considering the simplicity and speed of its registration (2-3 days). The authorized capital can be from 1 UAH and more. Alternatives are also joint-stock companies, but their registration lasts from 3 to 4 months, and their authorized capital shall be at least 1250 minimum wages ²).
- Enterprises with foreign investment pay taxes in accordance with the legislation of Ukraine (corporate income tax, personal income tax, value added tax, excise tax, environmental tax, rent, customs duty).

CUT FLOWERS

- Currently there are no statistical data or any other open quantitative information on the market of cut flowers in Ukraine. According to experts, more than half of all cut flowers sold in Ukraine are imported. The domestic production is represented by specialized enterprises (mostly roses), and a number of small private farms and households supplying small kiosks and street markets.
- **The market value of fresh cut flowers in Ukraine based on actual imports and total domestic production (excluding households), in end-consumer prices was 193 mln. USD in 2017.** It is estimated that 30% of the sales is in B2B segment and the rest 70% in retail. ; Based on this statistics the average expenditures of **one Ukrainian household on cut flowers is 9 USD per year** (which, at an average exchange rate of the dollar to the hryvnia in 2017, is 240 UAH). According to most experts, market continued to show **positive dynamics in 2018**, so we can assume that import grew by at least 7% and domestic production by 5%, hence the estimated value of the **market in consumer price is 205 mln. USD in 2018**. This means that Ukrainian households have increased their expenditures on flowers up to 10 USD a year.
- Product range. Roses has the largest share of sales in cut flowers segment (up to 70%) throughout the year. The roses are the most typical flower to be presented at any occasion, and they are widely used in floristics. The most popular is a red rose (about half of all roses), the second place takes a white rose (25%), roses of other colors take not more than 25% of the range. The availability of other flowers depends on the season.

² Minimum wage in Ukraine in 2018 comprised 3723 UAH.

Tulips are the most popular flowers from New Year until May; they are the most popular gift on March the 8th (International Women's Day, celebrated in the post-Soviet states) and February the 14th (St. Valentine's Day). Peonies are popular in May-June. The most popular flowers in summer are eustomas. Autumn is the period of chrysanthemums; these flowers are often presented on popular autumn events like Knowledge Day (September 1st) and Teacher's Day (early October). The Ukrainian retail market is rather conservative, so the product range consists mainly of classical categories, new varieties appear very rarely.

- The Ukrainian market is different from European market in regards to taste of consumers and some other criteria : the flowers of medium and low-price categories are in demand, while the share of premium and deluxe price category is relatively small. Flowers of premium category can only be found in specialized shops and floristic studios in big cities like Kyiv, Lviv, Odesa, Dnipro and Kharkiv. For a long time, roses with a large bud and a long stem have been in greater demand but the fashion for such flowers is changing toward roses with a stem 50-70 cm long. The most popular is the single rose, although lately the popularity of bush roses is increasing, especially for wedding decorations. As a gift, one rose may be used, but more often the bouquet consists of 3-9 roses. Currently the specialized shops and floristic studios offer trendy bouquets that consist of 101 roses.
- Usually Ukrainians buy flowers as a gift, and it is not typical to buy flowers for themselves. The flowers are usually presented on following occasions: birthdays and common holidays like March the 8th (International Women's Day), February the 14th (Valentine's Day), September the 1st (Knowledge Day), late May (Last school day of the year) , early October (Teachers' day). For these holidays, the demand for cut flowers significantly increases (by 5 times) and, respectively, import is also significantly increasing during this period.
- Experts pointed out the assortment of the flowers on the Ukrainian market is very limited. Although there is over-production of roses of low and middle price categories there is a shortage of high-quality roses and their diversity is not sufficient.
- Due to the absence of approved standards for the quality of cut flowers in Ukraine, the quality of flowers is determined by the external features: freshness, size of stem and bud, vase life and absence of visible signs of disease. Based on these quality criteria imported and Ukrainian flowers differ drastically: according to most experts, imported flowers are of much higher quality. The climate conditions of Ukraine do not allow to produce high-quality roses even in the well-equipped modern greenhouses. Moreover, due to a high production cost, namely the cost of gas, Ukrainian producers are trying to optimize cultivation technologies, for example, they may reduce the use of fertilizers and crop protection agents. Other flowers grown in Ukraine (not roses) are usually of poor quality because they are grown by smaller private entrepreneurs and households, in unprofessional or semi-professional conditions.
- Cut flowers are transported in special trucks with controlled temperature, approximately +5°C. Roses are mostly transported in boxes, some importers transport them in the water. Then flowers are stored in the equipped

warehouses until they are shipped to wholesale companies. Small retail shops and small kiosks are not always equipped with special cooling equipment, so in such places the quality of storage is poor.

- All experts state that the share of imported cut flowers on Ukrainian market is much higher compared to flowers of domestic production. According to some experts, this ratio is 70% to 30%. In order to satisfy demand during the holidays and events mentioned above the share of imported flowers increases significantly, in particularly from October till the end of March, when the market share of domestic flowers decreases.
- Some experts mentioned about decrease in import of flowers in 2018 due to several factors: local currency devaluation and drop in the purchasing power of Ukrainians, high risks during customs procedures (perishable product) and dumping policy by local flower producers.
- Key importers of cut flowers are: Ukraflora, Kyiv, Ukraine (<https://ukraflora.com.ua/>); Megaflora, Kyiv, Ukraine (<http://megaflora.com.ua/>); Exotic Flora, Kyiv, Ukraine; Luxflora (<http://luxflora.com.ua/>); Primaflora (<http://primaflora.com.ua/>); Holland To You (<https://htu.com.ua/>), Camellia (<https://camellia.ua/ua>) that mostly supply flowers to North region of Ukraine.
- Key exporters from the Netherlands to Ukraine are: De Gooijer International, Aalsmeer, the Netherlands; OZ Export, Aalsmeer, the Netherlands (<https://www.ozexport.nl/about/>); IBH Export, HQ in Aalsmeer, the Netherlands (<https://www.ibh-export.nl/>); Kurt Schrama Blumenexport, De Kwakel, the Netherlands (<https://www.schrama.nl/en>); Astra Fund, the Netherlands (<http://astraflowers.com/>); Zeester Bloemen en Planten BV, Honselersdijk, Netherlands; M&M Flor (<http://www.mmflor.com/index.html>); Limflor, Honselersdijk, the Netherlands (<http://www.limflorbv.nl/>); Export Unie Flora, offices in the Netherlands and Russia (<http://www.euflora.eu/en/index.aspx>); Flower force, Honselersdijk, the Netherlands (<https://www.flowerforce.nl/>).
- According to various experts interviewed large share (10% to 80%) of cut flowers is imported illegally,
- In most cases flowers from the Netherlands are bought at the Royal Flora Holland auction and other auctions in the Netherlands. The purchase is also possible via intermediary/ broker (factoring) companies.
- The top countries from which flowers are imported to Ukraine are the Netherlands, Colombia, Ecuador, Kenya, Ethiopia, Malaysia. Flowers are also imported from Israel, Italy, Poland; some exotic flowers are imported from New Zealand, Australia and Mexico.
- The supply chain of the flowers to is as follows: producer – auction (for imported flowers) – logistics companies delivering from auction to Ukraine and providing customs clearance – large wholesale companies – small wholesale companies – retail.
- There are four big logistics companies in Ukraine. Ukraflora, Exotic Flora, Luxflora and Megaflora are the largest wholesale companies.

- The vast majority of flowers in Ukraine is sold in flower kiosks (up to 80% according to expert estimates). There are a few retail chains selling flowers in Ukraine, and several luxury boutiques providing floral design, their shops are mostly located in large cities. F.e. Camellia shops in Kyiv, The sale of cut flowers also develops through the chain of supermarkets Epicentr (home and building goods), chains of other supermarkets, for example, Ecomarket, Silpo. Periodically, stands with cut flowers appear in such supermarkets like Auchan and Velyka Kyshehnia. It should be noted that in supermarkets flowers are usually sold with short stems and small buds of low quality, the flower counters are not equipped with refrigerators, so shelf life of these flowers is also short.
- According to the market players, cut flowers can be bought in sufficient range and of good quality only in Kyiv, in other cities delivery of flowers to wholesale warehouses takes place only once a week. In regional centers flower sales are not organized, there are only small stands in the supermarkets and street markets.
- Development of the retail market for cut flowers has been retarded by the lack of properly equipped retail shops. Production of cut flowers in Ukraine. Only cut roses are produced in Ukraine on an industrial scale. Major manufacturers are:
 - Ascania-Flora (<https://ascania-flora.ua/>),
 - Camellia (<https://camellia.ua/ua/catalog/cat/nashi-cvety/indoor/>),
 - Fresia (<https://ca.ligazakon.net/document/21937125/dossier/>),
 - Tandem (<https://tandem.agrobiz.net/>).
- Camellia and Fresia produce also tulips, which is the next top category of flowers grown in Ukraine. Tulips as well as other flowers are produced by small private enterprises and non-professional farms. The largest number of farms engaged in the production of tulips are concentrated in Lvivska, Dnipropetrovska, Kharkivska and Kyivska regions (near large cities Service Flora Company in Zaporizka region is one of the industrial producers of eustomas. Small unprofessional production is located in Kyivska, Mykolaivska, Odeska and other regions. Other cut flowers are grown in very small volumes, unprofessionally in small and private farms.
- Ukrainian producers (both large and small) have a classic range of flowers– these are usually flowers of constant demand. Producers have different strategies: some grow many varieties, others are limited to few varieties, but grow large volumes of the same variety. Producers are trying to avoid repeating the product range of each other.
- Professional rose producers operate in high-tech greenhouses, with climate control, automatic irrigation system and other professional (often Dutch) equipment. Large companies hire professional agronomists and use consultancy support from foreign experts. Producers of roses mentioned the following difficulties in their work: low consumers purchasing power, high price for gas and energy costs. . Thus, the production costs grow, but the price of cut flowers cannot be raised, and it leads to a reduction of production profitability. Currency

fluctuations are also a certain risk for manufacturers, there are also problems with lack of support from local scientific and research institutions and shortage of qualified specialists in the industry in Ukraine.

- Producers of other flowers in many cases not able to afford modern production technologies. They also experience planning problems: it is hard to predict demand and sales of the products. Small producers have difficulties in purchasing crop protection agents and fertilizers (small volumes result in high price); but it is also difficult for them to find an agronomist for small production. Planting material is expensive, especially if purchased in small volumes and it is difficult for the small producers to arrange import from the Netherlands.

POTTED PLANTS: IMPORT, POPULAR TYPES AND FASHION TRENDS

- Currently there is no statistical data in open source of information on estimation of market of potted plants in Ukraine. According to experts, practically all potted plants on Ukrainian market are imported.
- Evaluating the market we have taken into consideration a **real import estimation and insignificant domestic production**, excluding plant growing for personal needs in households, thus the ***total value of potted plants in prices for end-consumer comprised 130 million USD in 2017.*** Assuming that the share of the total output of B2B segment is 15% and the remaining 85% is sold in retail, the expenditures of one household per potted plant in average is 7 USD per year (197 UAH with the exchange rate of 2017). According to most experts, the market showed positive dynamics in 2018, so we can assume that import grew at least by 9% while domestic production – by 10%, hence the estimated market value for the final consumer is ***142 mln. USD*** in 2018. Under the same ratio between the consumer and the business markets this means that a household has increased its expenditures on potted plants up to 8 USD per year.
- Plants in pots can be divided into two categories: indoor plants and potted plants for outdoor gardening. The most popular in both categories are flowering plants.
- Orchid (phalaenopsis) is the most popular among indoor flowers. Other popular plants are those which are easy to take care: cactus, succulents, spathiphyllum, dieffenbachia, dracaena, chlorophytum, echeveria. Popular outdoor: marigolds, petunias, surfinia, coleuses, begonias, verbenas and forget-me-nots. Product range of potted flowers is usually stable, the same varieties of plants are sold from year to year, but each year appears around 5% of new plants. The biggest share of product range on the market belongs to middle price segment.
- Indoor flowers in pots are mostly imported; the share of indoor flowers of Ukrainian production is not more than 10%, the outdoor segments is mostly grown in Ukraine (from imported planting material).

- The following categories of plants in pots are imported (according to statistics): indoor flowers in pots and seedlings of the plants for nursing. Main importers of potted plants are companies dealing usually with import of both potted and cut flowers like Ukraflora, Megaflora, Camellia, Exotic Flora, Floremix; there are also companies that import seedlings and potted plants like Plantpol (<http://www.plantpol.com.ua>). Business Buket supplies flowers to supermarket Epicentr. Most often flowers from the Netherlands are bought at the Royal FloraHolland auction.
- Sales of potted plants are influenced by seasonal demand. Experts stated that in recent years there is a tendency to present potted plants on holidays (flowering plants) instead of cut flowers. Potted flowers are mostly presented on March the 8th (International Women's Day), February the 14th (St. Valentine's Day), Last School Day (end of May), the Teacher's Day (early October) The most popular are: potted roses, narcissus, hyacinth, kalanchoe.
- Experts check the quality of indoor plants, primarily by external criteria: stem thickness, number of buds, plant height, health of the root system. The quality of indoor flowers can be checked by importers directly in the greenhouse where the flower is grown, they can buy products from one supplier and build relationships of trust, in this case there will not be any inspections in the greenhouses.
- The quality of potted plants depends on the country of origin. of the quality of Ukrainian plants is lower due to the lack of professional growers, investments in the production technologies and automatization of production. The representatives of importing companies state that the top quality plants are supplied from Denmark, but they are also the most expensive ones. Polish plants have higher quality compared to, for example, Dutch, but they are also more expensive.
- During transporting the potted plants usually stored at +15°C, transported at +5°C, while being loaded, they remain on open air, where the temperature vary, depending on the season.
- Experts emphasize the problem of improper storage of the plants especially when plants get to the retail shops which do not have necessary equipment and cannot ensure the proper conditions.

Production of potted plants in Ukraine.

- Among the biggest producers of pot plants in Ukraine are Camellia (<https://camellia.ua/ua/catalog/cat/nashi-cvety/indoor>), Hollandski Troiandy (Gardi) (<https://www.gardi.biz/greenhouse/>), Plantpol (<http://www.plantpol.com.ua/>), Kivity Zakarpattia (<https://pfister.com.ua/>). Potted roses are grown by Tandem, while potted seedlings are grown by Ukrainian municipal greeneries (Zelenbud).

- According to experts, a big share of potted plants in Ukraine is grown by private individuals in not professional greenhouses. For example, there are associations (clubs) of amateur florists who grow saintpaulias.
- Growers of potted plants for outdoor gardening choose product range of plants that are well adapted to the Ukrainian climate conditions: petunias, surfinia, coleuses, begonias. Quite often both product range and quality of plants do not meet the consumers' demand.
- Top producers of potted plants grow their plants in automated greenhouses, with light, climate control and automatic irrigation. These companies usually grow a fairly wide range of flowers in one greenhouse, so one of the problems they encounter is the difficulty of creating separate, individual conditions for each type of plant.
- Both indoor and outdoor potted plants produced in Ukraine are usually nursed from the Dutch seedlings. Other materials like substrate, soil, pots, fertilizers, crop protection agents are also imported.

Distribution of potted plants

- The distribution of potted plants in Ukraine is still under development. There are no special chain stores that would sell this category of plants. Most plants are sold in garden centers of large supermarkets, individual shops and kiosks. Potted plants in shops are usually added to diversify the range and are not the focus product.
- A very large share (60-70%) of all indoor plants and potted plants and flowers for outdoor gardening is sold in the supermarket chain Epicentr (according to the director of Epicentr garden centers). Another sales channel is garden centers, for example, in Western Ukraine such garden centers can compete with the Epicentr.
- The main problem for producers and importers of potted plants is that retailers do not take responsibility on proper storage of the plants and their shops do not have necessary equipment to ensure the good care of the products.. Most of the retail chain pay to the suppliers upon actual sales of their products, with poor storage conditions the quality of products deteriorates rapidly and the sales go down,

PLANTING MATERIAL

- Planting material analyzed in this study: flower bulbs, seeds of flowers and ornamental plants, seedlings (for further use as cut flowers) and young plants of flowers and plants (that can be grown in greenhouses and in open field).
- Currently there is no statistical data or other open information on estimation of market of planting material in Ukraine. According to experts, 100% of all seeds and planting material, 90% of flower bulbs are imported. Most of young ornamental plants and flowers is grown in Ukraine (80%) and only 20% is imported; these are usually new exclusive varieties and most perennial plants.
- We estimate ***total value of planting materials in prices for end-consumer in 26 million USD in 2017*** based on assessing a real import and domestic production of some categories of plants, excluding plant growing for personal needs in households. Distribution between B2B and B2C segments is 70% to 30%. According to most experts, market continued to grow in 2018, so we can assume that import grew at least by 8% mainly in bulbs and seeds. Domestic production grew not more than 5%, hence the estimated market value for the end user in 2018 – ***28 mln. USD.***
- Flower bulbs have the largest share of the Ukrainian market of planting materials, 70-80% of all bulbs are tulips. Bulbs of lilies, gladioluses, narcissuses, crocuses, hyacinths and callas are present on the market though in a much smaller amount. Purchase price on tulip bulbs ranges from 0,12 to 0,40 EUR per bulb. The price depends on variety and size of the bulb.
- Product range of seeds of flowers and ornamental plants is very diverse and includes hundreds of varieties. The most popular types of flowers are marigolds, petunia, surfinia, begonia and coleus. Seeds are used for both sowing directly outdoor or for production of young plants for further sales..
- Assortments of the most popular young plants is almost the same as seeds Seedlings of flowers are also represented on the Ukrainian market. The most popular are marigolds, petunia, surfinia, begonia, coleus.
- B2B segment is comprised of companies which specialize in growing seedlings for nursing, mostly seedlings of roses. The second in size is growing tulips from bulbs in greenhouses.
- As mentioned above, almost all bulbs and flower seeds on the market are imported. Seedlings are partly produced in Ukraine, partly imported. However, experts indicate that recently import of seedlings increased..
- Almost all flower bulbs are imported from the Netherlands. Seeds and seedlings are mostly bought in the Netherlands. Some seeds come from Germany, Denmark, the United Kingdom and Japan.
- Companies-leaders in production of bulbs are Haakman Flowerbulbs (<http://www.haakman.com/ru/>) and Amsonia (<https://amsonia.nl/>).
- Major suppliers of bulbs for retail are Yaskrava (<https://yaskrava.com.ua/>) and Ukraflora; main suppliers of bulbs for wholesale buyers are Yaskrava and Florium (<https://florium.ua/>).

- Main importers of the planting material are: Ukraflora, Camellia, Exotic Flora, Agro-Market, Florium, Lili-Line, Interflora, Yaskrava. Interflora and Dablpopil are also active. Seedlings of perennial plants are imported only by Florium and Sotka, some nurseries also import this category for own use.
- Planting material has a significant seasonality of demand. Seeds and seedlings of ornamental plants are planted in the spring; bulbs are planted partly in autumn, partly in spring. The order is usually made 3-4 months prior to purchase.
- There are no quality standards for planting materials in Ukraine. The quality of bulbs is determined by the following criteria: size, absence of pests, diseases and mechanical damages so purchase is usually made from trusted partners.
- Quality of seeds is determined by such factors as germination ability and genetic purity of seeds. A bulb of high quality has a high germination index, 90%. These criteria are usually monitored after sowing and seeing the result. Trading companies rely on client feedbacks when they decide whether they should continue to work with supplier..
- Quality of planting material is monitored several ways: some distributors visit the farm and check how it works, some rely on company reputation and do not conduct any assessments. Experts identified the availability of poor-quality bulbs which is caused by a desire to buy cheaper bulbs while neglecting quality control.
- Quality of seedlings is determined visually: they should be green, without visible damage to the leaves and roots. The height of seedlings should correspond to the age and variety. Root system should be well developed. In practice, the quality of seedlings is checked mostly visually, phytosanitary certificates are usually made when a large batch is transported.
- Experts recognize that seedlings of the Dutch production are of higher quality, compared to that of Ukrainian production.
- Planting material is usually transported in special trucks equipped with refrigerators. According to logistics companies, all necessary requirements for transportation of planting material are kept but experts stated that transportation conditions are quite often violated. Some distributors have their own warehouses for product storage but there is a problem that conditions in the warehouses for bulbs are usually created for tulips, and not for the bulbs of other flowers. For other types of planting materials special conditions are not created. There are also no special storage conditions in retail outlets, where bulbs are sold in retail. Only specialized online stores may have such conditions.
- Some seedlings of flowers and ornamental plants are also produced in Ukraine. Top producers of seedlings in Ukraine are Camellia, Plantpol (<http://www.plantpol.com.ua>), Zelemin (Lviv) (<http://zelemin.com.ua>), Gardi (<https://www.gardi.biz/greenhouse/garden-plants/>).

- Seedlings are usually sold in the chain of hardware stores Epicentr, sometimes in agrocenters, high popularity gain sales via the Internet as well and catalogs by mail. Market players stated that there are several producers of tulip bulbs in Ukraine but they produce only 2% of all bulbs present on the market.
 - In Ukraine bulbs are mostly grown in small volumes at private farms, that cannot provide appropriate production technologies and do not have all the necessary machinery.

ORNAMENTAL PLANTS: RATIO OF IMPORT AND DOMESTIC PRODUCTION, DISTRIBUTION

- Currently there is no reliable statistical data or other open quantitative information to estimate the market of ornamental plants in Ukraine. According to experts, ratio between import and domestic production is 40% to 60%, in favor of domestic production. Share of imported and domestically grown plants can vary depending on category of ornamental plants. Domestically produced are mostly coniferous plants, shrubs and perennial grasses. Broad-leaved trees are mostly imported.
- When assessing the market we took into consideration real import estimation and domestic production, excluding plant growing for personal needs in households, all in all it made ***total value of ornamental plants in prices for end-consumer 118 mln. USD in 2017***. This evaluation coincides with the results of research conducted by experts who estimated the market volume by 100 mln. EUR (around ***110 mln. USD***). With assumption that share of B2B segment is 40%, and 60% is sold in retail, the expenditures of one household per ornamental plant in average is 4,7 USD per year (125 UAH). According to most experts, the market volume continued to grow in 2018, while share of domestic production decreased. We can assume that import grew at least by 20%, while domestic production – by 12%, hence the estimated market value for the final consumer is ***137 mln. USD*** in 2018. With the same ratio of the consumer and the business markets, this means that a household has increased its expenditures on production of ornamental plants up to 5,5 USD per year.
- Import of ornamental plants consists of: nursery plants of trees, shrubs and perennial grasses for nursing. Imported are also new varieties of trees, shrubs, grasses, and large-sized trees. There are three categories of importers: garden centers, nurseries and companies that specialize in landscape architecture.
- Most experts focus on practical manifestations of the plant's quality, namely well-developed root system and the number of branches on the shrub or a tree. The quality standards for ornamental plants in Ukraine are being developed. Plants Industry Association (<http://auri.org.ua/ru/project/standarty-posadochnogo-materiala-assotsiatsii-ukrainskaya-rastitelnaya-industriya/>) is involved in consolidation of standards and developing the local norms. And in the meantime, sector representatives rely on the European and sometimes Canadian or Russian standards.
- The distribution of ornamental plants in Ukraine is underdeveloped. According to experts, there is insufficient number of garden centers and no special chain stores that sell plants in Ukraine, and nurseries have to search for sales

channels. Nurseries have several client categories, among them are landscape designers, garden centers, chains of construction stores that have garden centers and municipal institutions responsible for urban greening.

Domestic production of ornamental plants

- Production of domestic plants in Ukraine is at the development stage at the moment. There are 15 nurseries with total sales revenue over 1 mln. UAH a year. Most nurseries in Ukraine do not have a clear specialization and grow a wide range of ornamental plants: coniferous and deciduous shrubs, ornamental trees. Main criteria for adding new plants to the range are: popularity, adaptability to local climate, correspondence of labor costs on plant growing to nursery's capabilities.
- Ukrainian nurseries are mostly dealing with nursing of planting materials. The cultivation technology includes all standard operations: crown formation, transplantation, treatment, irrigation and application of fertilizers. Nurseries are equipped with an automatic irrigation system, equipment for digging and packing plants, but this machinery is usually not enough. Almost all production materials like nursing plants, peat, pesticides and fertilizers are imported.
- Key problems in the work of nurseries: lack of personnel, problems with product realization, lack of well-developed infrastructure, renovation of machinery, dependence on import dependence and unregulated land market.

Export of ornamental plants

- Volume of Ukrainian export of this category is small. Dekoplant, Kornelis, Gardi, Natalis and Agro-Flora are the nurseries exporting ornamental plants.
- Some volume of trees and shrubs is exported to Georgia (Gardi and Natalis nurseries), coniferous plants are exported to Uzbekistan (Agro-Flora nursery).
- Some plants are exported to Europe. These are mostly grafts for garden roses and nursery plants of shrubs by Kornelis. Dekoplant nursery exports up to 20% of the total amount of garden roses they grow.
- According to experts, there are two key barriers for the export of Ukrainian products: the inability of the Ukrainian nurseries to provide a constant supply and quality which is mostly lower than that of planting material from the European nurseries. Market of ornamental plants is already saturated with plants of European production where contacts between manufacturers and suppliers are already well established. A large share of imported products in production of ornamental plants (nursing plants, fertilizers, soil, pesticides) makes growing process rather expensive as production costs increase, therefore it is difficult for the Ukrainian producers to compete with foreign nurseries in price. The other obstacle is complicated logistics: plants are to be transported over long distances, complicated document processing and poor road quality.
- Belarus and countries of the Caucasus and Central Asia are considered to be most promising markets. Some experts mentioned Scandinavian countries.
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COMMON PROBLEMS OF IMPORTERS OF FLOWERS AND ORNAMENTAL PLANTS

- Importers face delays and corruption at the customs, delays are especially critical during plant export, when quality may deteriorate rapidly with improper storage.
- Reduction of purchasing power of the population..
- Lack of personnel and increased competition on the market in some industries (for example, import of bulbs).

DEVELOPMENT OPPORTUNITIES

General trends in the development of market of flowers and ornamental plants:

- The market shows a general increase in demand for products after a general drop of the market due to the economic crisis and military conflict.
- Around 10% of companies have not survived the crisis and closed the business while the companies that survived started working in the new regions to increase sales volume.
- Dynamics of sales volumes depends on the category: sales volume of planting material increases as production in all categories increases, except for production of cut roses. Sales of indoor flowers have increased compared to 2014, but have not yet reached the volume of 2013 yet.
- In the face of declining purchasing power and high competition, shops and distributors are forced to reduce their own margin.
- The mechanism of import of ornamental plants is changing. Stores and even florist companies refuse using services of intermediary importers and switch to direct purchases, they order flowers at auctions in the Netherlands, pay for products themselves and order delivery service from logistics company. In this way they can get needed amount of flowers and shorten the time of purchase (flowers are not stored by the importer).
- Domestic production of ornamental plants and pot flowers (mainly for outdoor gardening) is growing.
- There are visible changes in the preferences and purchase behavior of buyers of ornamental plants: increased demand for cheaper products while demand for products of a higher price category is decreasing.
- Increased share of delayed payments in the nursery.
- Ukrainians travel more, so the tastes for ornamental plants are getting similar to the European buyers.
- There is a new category (about 10%) of buyers that buy indoor plants as an element of decoration, earlier indoor plants were considered only as emotional purchase.
- Changes in the product range:
 - Increased number of plants in containers.
 - Share of broad-leaved trees in nurseries is increasing, but most of the products are coniferous trees.

- More heat-loving plants are being grown in the nurseries, also the ones that are new to this market , but due to global warming can now accommodate to the Ukrainian climate.
- Among pot plants there is a larger share of ornamental green plants, though flowering group is still popular. The popularity of orchids (phalaenopsis) is decreasing, but it is still the most popular plant.
- More attention is being paid to the product promotion: new interesting packaging, creative pots for indoor plants.
- There are visible changes in distribution: sales at the pop-up market is reduced, while the share of plants sold in specialized stores is increasing. The sale of plants through Internet is growing rapidly.

FORECAST FOR THE FUTURE

- Market of plants is a promising and profitable sector of the Ukrainian economy with high growth prospects.
- Most experts predict growth and development of the market in all categories (ornamental plants for landscaping, pot flowers, cut flowers, planting material).
- Experts expect increase in landscaping of large and smaller cities, more thoughtful greening of urban spaces and private plots. This is expected to develop with increasing autonomy of cities.
- Experts believe that the number of growers and importers of planting material will increase.
- As for imported products: experts expect increase in the number of direct purchases from auctions in the Netherlands and further reduction of the number of intermediaries.
- Changes in the distribution structure are expected: emergence of chain stores for selling planting material, pot and cut flowers, and, respectively, reduction in the number of kiosks and pop-up markets.
- The share of plants sold via the Internet will increase.
- The following changes in the product range are expected:
 - Increase of the number of indoor flowers that require minimal care;
 - Increased popularity of so-called green walls.
- Experts expect increased production of ornamental plants and cut flowers, especially those categories which are not yet sufficiently produced in Ukraine: all cut flowers, except for roses. Accordingly, the ratio of domestic and imported products will change in favor of domestic production.

WHAT CAN STIMULATE THE MARKET. POSSIBLE STATE ASSISTANCE.

In general, the market can be stimulated by support to producers and creation of fair terms of competition. This would mean:

- Reduction of customs duties for imported products and reduction in the number of documents required for import of products;

- Reduction of corruption on the market, which will make ornamental plants cheaper and more affordable for consumer, reducing import duty should go together with increasing control at the customs;
- Creation of preferential terms for producers of flowers and ornamental plants in Ukraine, such as soft loans for the purchase of equipment, subsidies to purchase fuel and materials needed for production, tax reduction.

The government is expected to launch the following legislative initiatives:

- Opening of land market or extending the moratorium for a fairly long period, for example up to 10 years (currently, the moratorium was extended until 2020);
- Adoption of norms for obligatory greening of adjoining areas;
- Review of outdated building codes;
- Consolidation and adoption of quality standards for flowers and ornamental plants. This will help develop transparent pricing policy and simplify submission of tender applications (e.g., for landscaping of urban areas).

COOPERATION WITH THE KINGDOM OF THE NETHERLANDS

Nowadays there are two major channels for cooperation with the Kingdom of the Netherlands:

- All products that are ready to be sold in Ukraine and planting material are purchased in the Netherlands;
- Dutch experts provide consultations to the Ukrainian producers, most often consultations are provided at the expense of sellers of planting material and provided to buyers of this category in Ukraine.

Mechanisms for broadening cooperation are as follows:

- Introduction at exhibitions and further visits to the Netherlands to see production process;
- Establishing direct contact through auctions.

POSSIBILITIES OF COOPERATION WITH PARTNERS IN THE NETHERLANDS

The most **promising areas** of cooperation with the Netherlands are the following:

- Establishing new partnerships with suppliers of planting material, cut flowers, pot plants and ornamental plants. New partners are expected to provide products of good quality at a more attractive price. These might be less known nurseries, cooperatives and other suppliers that produce good quality material at attractive prices.
- Conducting research at the Ukrainian nurseries and greenhouses in order to adapt Dutch technologies to the Ukrainian conditions.

Main barriers for import of planting material from the Netherlands are:

- High prices for Dutch products, high customs duties and transport costs, which, combined with the low purchasing power of Ukrainians, reduces the demand;

- Low level of knowledge of English by the Ukrainian businessmen;
- Unfavorable investment climate in Ukraine.

GOVERNMENTAL SUPPORT

The key players of the market and experts expressed that they look for governmental support in the following areas:

- Granting concessional loans to purchase machinery and planting material.
- Technological support of loans to those who start a business in the field of ornamental plant production, for example, by organizing internship;
- Work on conclusion of intergovernmental agreements that would provide mutual recognition of certification between Ukraine and EU countries;
- Development of a step-by-step guide to organizing the import of plants from nurseries in the Netherlands;
- Creation of an open list of all companies producing ornamental plants (all categories) so that Ukrainian importers have more information about import possibilities;
- Creating conditions for acquaintance and further cooperation between less known and well-known producers, which will favor purchase of cheaper but at the same time high-quality products;
- Assistance during selection of planting material that would be suitable for cultivation in Ukrainian nurseries. Assistance is also needed in assessment of profitability of cultivating one or the other type of plants;
- Participation in the events promoting landscaping and nurseries;
- To issue a grant for promotion of planting material standards;
- Assistance in organization of further vocational trainings for specialists that are currently lacking at the market: gardeners and agronomists.