

Specialized LEDs are commonly used to grow crops in greenhouses and are increasingly seen in ‘vertical farms’ in cities. However, scientists believe there may also be potential for using LEDs in more traditional and rural activities.

The solar-powered LEDs augment the light plants normally receive during the day. Roosegaarde’s project is also investigating whether brief exposure to some wavelengths of UV light could reduce the need for pesticides. Pesticides are widely used in agriculture that to nature-negative effects such as in violation of natural microbiocenoses of soil and water.

«A specific ultraviolet light activates the defence system of plants» Roosegaarde told Dezeen. «And what is interesting is that it works on all crops. So we can reduce the use of pesticides». Roosegaarde’s eventual goal is to take the artwork on tour to 40 different countries, with each featuring a local or national crop and tailored light recipe.

Sustainable food and agriculture is the key to meeting all four pillars of food security – availability, access, utilization and stability, according to the Food and Agricultural Organization of the United Nations (FAO).

The FAO has highlighted 20 actions countries and stakeholders need to take immediately to combat global food insecurity, including connecting smallholders to markets, protecting water supplies, empowering people and fighting inequality [1].

In the end, we are to say, what «GROW Project» Dutch artist and innovator Daan Roosegaard is an example of technology and agriculture diffusion. Using «GROW Project» let receive a huge amount crop yield’s agricultural products almost without using pesticides. Netherland’s experience of sustainable nature-positive agriculture and food production results in the decrease of non-renewable resourses, reduces pesticide impact on microbiocenoses of soil and water and corresponds with the global goal of sustainable development.

REFERENCES:

1. This illuminated field isn't just pretty – it’s helping to grow crops [Electronic resource]. – Mode of access: <https://www.weforum.org/agenda/2021/01/light-led-crops-pesticides-sustainable-agriculture>. – Date of access: 24.01.2021.
2. Daan Roosegaarde [Electronic resource]. – Mode of access: https://en.wikipedia.org/wiki/Daan_Roosegaarde. – Date of access: 24.01.2021.

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THE FUTURE WITH ONLINE SHOPPING

In 2021 no modern person can imagine a day without a gadget that has Internet access. The online industry is developing at a tremendous speed, having a great impact on all areas of our lives, from paying for utilities to making purchases on various web

platforms. Online trading has appeared in the world recently enough as a new direction. The concept of electronic commerce includes such functions as:

- the transfer of information, products or services through online resources;
- the provision of services electronically;
- organization of online methods of conventional trading [1].

In a short span of time online shopping has become so popular that it can easily compete with traditional shopping. With each passing day, shopping centers and local stores are finding it increasingly difficult to contend for customers. Moreover, the situation was quite strongly affected by the coronavirus.

A third of those who were committed to online shopping before the coronavirus pandemic began to buy even more actively on self-isolation.

As far as we are interested in the role of online shopping in the modern world, we decided to hold a poll among residents of the capital and regions of Belarus. In our study we investigated the situation on the Belarusian market and found out what Belarusians buy most of all. The analysis is based on the data obtained from the poll among population and data provided by the Belarusian State Statistical Committee.

The research shows that people are becoming much more active in online stores. Moreover, every year the consumer basket of the online shopaholic expands. Based on the results of the survey, it was concluded that with the onset of the coronavirus pandemic, most of the respondents began to use the Internet more often as a place to buy the desired product or service. Before the global lockdown, people tried to make most of their purchases offline, but now the respondents consider it acceptable to buy even food on the Internet. Nowadays people are increasingly choosing to buy products online. 44.9% of respondents indicated that they started shopping online about a year ago. It can be explained by a plethora of reasons that the respondents indicated in their questionnaires: a wide range of goods, more favorable offers, ease of delivery, time saving, the ability to make purchases without leaving home (which is especially important during the coronavirus pandemic).

The most popular commodities are: clothing, cosmetics, household goods and books. Of course, there is a fear that the product may come damaged or not come at all, but in our study, only 21% of respondents consider it as a disadvantage of shopping online. Goods that people are less likely to buy online include: food, medicines, shoes, and jewelry.

These studies help to predict the situation in trade and to review the trends in the development of online turnover in Belarus. After analyzing the results of the study, we concluded that online trading is one of the most promising areas in the business industry. It is more resistant to various kinds of crises and unforeseen circumstances and will not give up its position in a long run.

REFERENCES:

1. Онлайн-шоппинг меняет прописку [Электронный ресурс] : Коронавирус нагнал страху на онлайн-шопоголиков. – Режим доступа: <https://expert.ru>. – Дата доступа: 02.03.2021.