

Hypothesis: male european starlings add fresh green plants to their dry nest material to attract a female starling.

When building their nests male starlings collecting parts of green plants, fresh leaves of trees and bushes, moss, lichens, blossoms of herbs and trees, large feathers of pheasants, crows, chickens, ducks, as well as human artifacts such as pieces paper, plastic foil, cord, ribbon, and put them into the nest-boxes at different stages of nest construction.

But males carefully approach the choice of plants. They can bring about 70 different species of scented plants to the nest, and a significant number of these preferred plants rich in volatile substances, some of which are considered insecticidal. In addition to attracting females, these plants also help protect the nest from parasites. For example male starlings choose leaves and blossoms of milfoil (*Achillea millefolium*) and willows (*Salix alba*).

Females also carried small pieces of green leaves into their nests but only rarely and secretly. Males, on the contrary, showed these items off by holding them in the beak while singing or approaching a female, sometimes dropping them in front of her and eventually putting them into the nest.

Females do not supply the nest with scented plants, but their greater sensitivity to olfactory stimuli during the breeding season can help them determine if a potential mate's nest is well prepared with scented plants.

Conclusions: by showing green plants and other objects and placing them in their nests, males can attract the attention of a female just like this do songs or courtship poses. Also, the plants that the males choose have insecticidal properties, which help to protect the nest from parasites.

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MODERN TRENDS OF LANDSCAPE DESIGN AND THEIR APPLICATION IN THE CREATION OF MY PROJECTS

Landscape design is a complex of special events and solutions intended to change the appearance of the territory through the active use of natural components. Landscape design is able to provide comfort. Within one site, all zones will be distributed competently, taking into account the need and relevance. It is also very important to use modern landscape design trends to make the site look fresh. The purpose of the work is to trace the application of landscape design trends in practice.

The latest trends in landscape design are:

1. Minimalism. This is the simplicity of forms, clarity of lines, a lot

of free space in which there is nothing superfluous.

2. Selection of a small number of plant species (ideally no more than 5 even in a large area). In such a garden, local hardy and unpretentious crops are grown. This approach not only facilitates the care of the garden, but also allows you to take care of the environment.

3. Zoning. This means dividing the territory of the site into zones bearing different functional loads e. g. an active and passive recreation area, a meal area, a residential area, and so on. This is the basis in planning, which architects are now paying great attention to.

3. Patio – partially fenced recreation area.

4. Tiering. The basic idea is that objects and plants are placed in the garden on several levels.

5. Environmental friendliness. Implies the use of eco-friendly materials (such as wood and stone) as well as the use of renewable energy sources (for example, solar-powered lamps)

6. Vertical gardening. It allows you to grow more plants on a small plot. For this purpose, climbing plants are used, boxes are hung on the walls and vertical flower beds are created.

7. Hedges. Elevation of living plants with a dense decorative crown. They replace the fence well, look beautiful on both sides, purify the air, protect from dust, wind, and others.

Working with cool shades and geometric shapes allows the site to look more expensive.

Wave. The high-tech Wave project is designed for an area of 1500 m². The high-tech style includes the use of glass and stone. In recent years, this style has gained popularity. The territory is zoned. On the high tier there is a residential building, there is a terrace and a fountain. Going down the stairs, we get into the eating area. It is located under a canopy. After walking along the garden path, we get into the zone of tropical plants. It is fenced off by arches on both sides. This is a good place to switch to another wave and relieve stress. There is a recreation area that can be used for photo shoots, phytowalls are located here. Here you can grow moss of different types. These walls are also illuminated by floodlights at night. A fountain is built into one of the walls, which will help to settle down on a hot summer day. A pool behind the house and a pond are combined here. The pond was created using the “landscaping pool” technology. There are also a parking area and benches.

Green Study. This project is a patio on the territory of the Svetlogorsk Ecological and biological center. This project is timed to the development of the direction of “green schools” in Belarus.

As a basis a recent trend in landscape design-“basket” was taken.

They may look different. The “basket-cabinet” technique, this is a small area, bounded completely, or a typically dense hedge. There is a basket with a raised flowerbed for indoor plants that are planted for the summer period of the year, where students can study flower science. The project includes a playground for walking animals that live in the office “animal world” and green classes for students of the scientific society interest groups, as well as a stage for events and classes of the Ecotheater group. On the sides of the entrance part there are “health trails” with various filling. The patio also includes a basket with a tree-shrub group of plants and raised flower beds.

Own space. This is a minigarden with a space theme on an area of 50 m². The idea of this garden is low-maintenance. This is a place of solitude, relaxation. The garden is fenced with a hedge. Flower beds are designed in the form of orbits and are located on different levels. This applies to vertical gardening. In the middle there is an art object made of metal and glass in the form of spaceships. It houses solar panels that supply electricity to flood lights and automatic watering for plants. There are benches on the territory, repeating the basic shape of the site. This project is a good example of how you can create a secluded place in a small area, hence the name “Own Space”.

Conclusion. New things in landscape design appear infrequently, but this means that a plot created in accordance with modern trends will not lose relevance for a long time. All trends are united by one thing – the desire for nature.

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PROMISING CONSTRUCTION WAYS OF ACCESS ROADS TO FOREST HIGHWAYS ON GROUNDS WITH LOW SOILS BEARING CAPACITY

The subject of this work is access roads to forest highways which play an important role in forestry. They come in the form of roads, trails, paths and provide access to forested areas, help to implement various forest operations, such as cutting trees, timber transportation, and forest plantations management. However, it is necessary to take into account the area ground conditions to ensure their reliability and durability while planning and constructing access roads.

The purpose of this work is to study promising ways to arrange accesses to forest roads on the grounds with low bearing capacity of soils and