

THE MATHEMATICAL IMPACT OF GREENING ON HUMAN HEALTH

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Abstract: The article, using mathematical calculations, substantiates the positive impact of greening the territories of urban settlements and villages in our republic, including selective planting and maintenance of gardens and flower beds, on human life, health, and recreation.

Keywords: Mathematics , design, health, well-being, recovery, leisure, recreation, garden, beauty, aesthetics, coefficient, factors.

Today, one of the main problems in urban planning is the scientific organization of landscaping work . Greening residential areas—cities, suburbs, villages, and towns—is one of the main objectives of improving these places. The scale of greening is an indicator of the population's culture. Statistical studies show that people settle in green areas, and migration from these areas is rare. Uzbekistan is a country with few forests, so green plants define the natural landscape here. Residential areas, roads, irrigation structures, and reservoirs are being greened on a large scale in our country. Rural and mountain reclamation forestry are of great importance, as the role of forests in protecting water, air, and soil is incomparable. Resolutions of the President of the Republic of Uzbekistan and the government place special emphasis on the improvement of residential areas. Several scientific organizations and nurseries currently operate in the field of greening. Expanding the range of ornamental trees and shrubs used in landscaping, finding varieties and forms that can adapt to the conditions of our country, and introducing scientifically based care technologies are among the pressing issues of our time. The range of landscaping materials in Uzbekistan is limited , and it is important to expand and improve it. It is impractical to plant and propagate exotic plants imported from other countries in nurseries . Of the long-lived and perennial, valuable ornamental trees suitable for planting in cities, special attention should be paid to the planting of linden, chestnut, oak, plane tree, sycamore, Norway maple, tulip tree, catalpa, rowan, hornbeam, linden. • Of the fast-growing tree species, poplars, white birch, willows, especially willow, deserve attention, and for the southern regions - sophora, honey locust, white acacia, bunduk, ailanthus, green maple, plane tree, etc. In the decorative design of cities and residential areas, in monumental landscaping, many decorative forms are of great importance: pyramidal, spherical, with drooping branches (willow-like), columnar, deciduous, etc. Also in the decorative design of cities, towns, residential In areas, neighborhoods, and rural settlements, the role of brightly flowering shrubs in giving them a beautiful and cozy appearance is incomparable: spirea, clematis, jasmine, lilac (siren), dahlia, dogwood, tamarisk, forsythia, privet, yellow acacia, golden currant, etc. The invaluable quality of these and many shrubs is that they are not only fast-growing and adapt well to the specific environmental conditions of the city, but also highly decorative. When addressing the challenges facing landscaping , it is important to

utilize the rich dendrological plant resources currently available, primarily to increase the diversity of plant species and improve the quality of nursery products (plants and seedlings). A modern city or other populated area is a complex of diverse buildings, numerous engineering structures, roads, squares, open spaces, ponds, and green areas. According to urban planning regulations, at least 50% of the territory of populated areas must be allocated for landscaping. Extensive urban planning experience shows that one of the main goals is to achieve a certain balance and harmonious harmony between the natural and artificial environments, interconnecting all landscaping features and integrating them into a unified system. An important aspect of the art of creating garden parks is the unification and coordination of natural zones, green trees, and examples of artistic creativity within their organization. Green building is a lengthy, technologically complex, creative process that involves addressing and implementing a number of operational issues. Green building practices include: creating gardens and parks; landscaping residential areas; selecting plants suitable for various soil and climatic conditions; placing and grouping plants in accordance with architectural structures, ponds, roads, squares, and sculptures; and planting and care. To effectively address landscaping challenges, specialists must possess in-depth knowledge of biology, ecology, the scenic qualities of green plants, basic methods of creating compositions in green building, landscaping systems for residential areas, designing green spaces, and the basic work required to maintain them. This article will help you learn about the types of plants used in landscaping, the picturesque, biological and ecological properties of trees and shrubs, become familiar with the basic methods of creating compositions in green construction, the system of landscaping residential areas, its design, as well as the main composition of work carried out in areas where landscaping is required in the specific conditions of Uzbekistan.

Human life and health are inexhaustible in creativity. We explained how to create a green garden using mathematics and design.

Math + Design => Health (S), Well-being (K), Regeneration (Hordic) (X).

Humanity, through its physical and mental labor, receives much from nature and actively participates in its life. It adds beauty to beauty, beauty to beauty, grace to grace. Thus, humanity creates a comfortable and healthy environment for itself. How can this be achieved? By, of course, increasing the number of trees, planting a variety of tree species along stream banks and roads that are both ornamental and fruitful, providing good shade and a pleasant aroma.

It makes sense to create parks not as fruit orchards, but as places where you can relax in the shade, walk or sit, and enjoy the aesthetic pleasure of the view.

If we simply walk along the edge and forget about our own proven treasures, we will lose much.

1. Walking among junipers and sitting in the shade of willows cure tuberculosis.
2. In particular, it heals nerves and increases cheerfulness.
3. In our community, when someone comes into the circle and laughs, they say, "Ha-ha! What,

are you from the ghetto ?" They say.

4. The rustle of white poplar in a light breeze calms the nerves.

5. In addition to producing fruit suitable for bread, mulberries (thanks to their roots, which extend for 300 meters) draw moisture and toxins from the soil. This protects buildings from damage by salt and toxins.

6. Rose. It has a wonderful fragrance and color. It is a perennial plant, and many varieties have been developed. It is best planted individually or in groups.

7. Lily of the valley (bellflower) . This perennial flower blooms every year in early spring in the same place. It has a wonderful , pleasant, subtle aroma. The French make perfume from it.

8. Raykhon (also called nozva). There's no other scent quite like it. In our country, this flower is planted in every yard.

9. Gulkhair. A beautiful addition to any flowerbed. The plant grows up to 1 meter tall and produces red, yellow, and bluish-green flowers. The leaves are evergreen and bloom all summer.

All these are pure and beautiful trees and flowers that have a profound impact on human life. Let's get to the point. Many good things are being done to ensure a prosperous life. One of them is improving the air quality, appearance, and cleanliness of our cities and our entire country. This, in turn, restores our health, improves our mood, and restores our strength and productivity in exchange for a summer vacation.

The influence of the above-mentioned ornamental and fruit trees, various flowers and greenery on the human factor can be expressed in the form of the following system of equations.

$$\begin{cases} \alpha_1 A_1 + \alpha_2 T_1 + \alpha_3 T_2 + \alpha_4 J + \alpha_5 G_1 + \alpha_6 G_2 + \dots = S \\ \beta_1 A_2 + \beta_2 G_1 + \beta_3 G_3 + \beta_4 T_1 + \beta_5 J_2 \dots = K \\ \mu_1 T_1 + \mu_2 T_2 + \mu_3 G_1 + \mu_4 G_2 + \mu_5 G_3 + \mu_6 G_4 + \dots = H \end{cases}$$

In these notations, α (alpha) is the efficiency coefficient of each factor (A – spruce; T = willow, poplar; F = fir; $G_1, G_2, \dots$ – flowers) on our body. For example, $\alpha_1 - A$ is the magnitude of the healing effect of spruce. Many such coefficients have already been determined. In particular, if the area occupied by spruce branches is considered as a circle with a diameter of d^{-4} , then when studying the atmosphere of this area, not a single tuberculosis bacillus was detected in a circle with a diameter of $d^{-4}+5$ m, even if it grew in such a hospital courtyard. The coefficient of the beneficial effect of β -factors on our mood. μ - factors (cool shade, quiet sound) indicate their contribution to our relaxation.

A person understands what they've created with their thinking and expresses their attitude. If the flowers and flowerbeds are tastefully designed, as soon as you see them, you immediately say, "Blessed! I admire your taste." "People who love and cherish life live here," you say. There's no uniformity in such places. Designers know this well.

Diversity awakens aesthetic pleasure at every step, brings joy to nature, takes away sadness and makes one think and reflect.

Each place is unique in its own way. The colors and shapes are so graceful and artistic that they take our breath away, revealing just how creative nature can be.

According to this thought and the experience of our ancestors, it is advisable to transform courtyards, roads, sidewalks, squares, and parks into green spaces and groves. This has a positive effect on a person's mood, health, and relaxation.

Conclusion How in other words city And in our villages landscaping, flower beds, rest gardens organization do and broadcast Kind decorative And fruit trees landing Human to life positive influence do mathematician road With physical And mental cocktail for Very big to importance has What And this With People myself For comfortable And useful environment create shown.

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