

ROTARY YOUNG ENVIRONMENTALIST COMPETITION
SENIOR DIVISION

WASTE MINIMISATION TURNING GRASSY AREAS INTO FLOWER BEDS

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INTRODUCTION

My waste minimisation idea is to transform areas of grass into flower beds. There are so many areas in which this could be done; the unused corners of sports fields, verges, lawns and areas of common ground. If perennials were used, the flowers would not need replacing every year, meaning that it would not be too expensive, but would have many benefits. There are many positives, not only do flowers look nicer than expanses of grass, but a combination of flowers and bushes would remove more carbon dioxide from the atmosphere than grass does. If the flowers were chosen for their nectar producing properties, and the bushes for their berries, they would provide a much needed food source and habitat for insects and birds, helping to improve biodiversity. There is also strong evidence of nature benefitting our mental health. Ecotherapy is now a treatment for mental health issues, in which patients are encouraged to participate in outdoor activities and reconnect with nature. It is, therefore, important to provide spaces in our urban areas where people can escape the day-to-day stresses and relax surrounded by nature.

AIMS

1. Reduce water waste.
2. Reduce energy waste.
3. Put space to better use.
4. Provide habitats and food for nature, hence increasing biodiversity.
5. Make areas of grass prettier and more relaxing.

BENEFITS TO THE COMMUNITY

1. Prettier towns and cities.
2. More nature in urban areas.
3. Cleaner air.
4. Areas where children could be educated about nature and the environment (eg. forest schools could be set up.)
5. Improved mental health.
6. More appealing communal areas to sit.

EXAMPLE

Parker's piece is a flat and roughly square common area in the centre of Cambridge. This is exactly the sort of area that I would plant flowers and bushes on. Parker's Piece is 100,000 metres square (25 acres) and is bordered by roads on all four sides. In this case, to ensure that the common area, used for sports, fairs and picnics is preserved, I would propose a border of plants. Around the whole perimeter, or on just one side (depending on budget), I would plant a hedgerow, this would provide nesting sites and berries for birds. It would also make the area more secure, reducing the risk of dogs running into the road, and it would shelter the grass where people sit from the road noise, making it quieter and more peaceful. I would then suggest that within the hedges a line of flowers were planted, this would smell and look lovely as well as providing nectar for insects. Gaps could be left where the paths are and where the railings are removed to allow vehicle access, reducing inconvenience. This would have an upfront cost, but the bushes and plants wouldn't need replacing for many years. This would make Parker's Piece a more private, sheltered and peaceful area, potentially encouraging even more people to congregate there, further improving the sense of community.

SUITABLE PLANTS

Succulents eg. sedum and sempervivum.

Herbs eg. lavender, thyme and rosemary.

Wildflowers eg. poppies, cornflowers, yellow rattle and Ajuga.

NOTE: I have suggested these flowers based on their drought-resistance and their nectar producing qualities.

Bushes eg. hawthorn, rowan, cotoneaster and guelder rose.

NOTE : I have suggested these bushes based on their berry producing qualities.

WASTE MINIMISATION

1. **Water** - During the summer, grass requires regular watering, if not, it quickly looks brown, withered and messy. If drought-resistant plants were used, they would require less water, and remain looking better kept for longer. This is important as reducing water consumption is a huge way that we can help our planet, not only does pumping water contribute to emissions, but only 3% of water on earth is freshwater, and an even smaller 0.5% is available to drink as the remaining 2.5% is locked up in ice, meaning that it is important not to waste it.
2. **Energy** - In order to maintain neat grass, it needs to be mown regularly, this requires fuel or electricity depending on the type of mower used. Having more flower beds means that there is less grass in need of mowing, hence less energy is used. About 90% of all lawn mowers in the US have petrol engines, due to their power and speed, petrol engines are the preferred option, which means that, as well as using ever rarer fossil fuels, they also contribute to the greenhouse effect. By reducing the amount of grass, the amount of fuel needed will in turn be reduced.
3. **Space** - Grass contributes very little, it only removes a small amount of carbon dioxide and when kept short it provides no food or habitat for wildlife. When being critical, one could argue that it's a bit of a waste of space when kept in the way that most common grounds, verges, sports fields and lawns are. Flowers, however, would minimise this waste of space by transforming a patch of grass into a beautiful, biodiverse and relaxing haven in the middle of a city. The flowers and bushes would provide a food source and create a habitat for wildlife, for which there is a great need, which grass does not fulfil to the same extent, hence making better use of the space.

POTENTIAL PROBLEMS

Increased number of flowers would lead to more insects, which could potentially lead to people getting stung.

Bees are docile animals, and will only sting when threatened, stings are therefore fairly avoidable. People who have a severe reaction to stings could easily position themselves further away from the planting to reduce the risk.

CONCLUSION

In conclusion, flowers and bushes would have an upfront cost, but many benefits. They would improve biodiversity, mental health, air quality, community sense as well as reducing the waste of water, energy and space.

Sources

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