from the root areas. In addition, compaction can interfere with water penetration and drainage.

Q: Can you recommend a machine or system to fertilize a large number of trees in an industrial park?

A: Applying soluble or suspension fertilizers with a soil injector is the most efficient and economical system for fertilizing large numbers of trees in a lawn situation. If a suspension fertilizer is used, mechanical (paddle) agitation in the tank is recommended to prevent settling. We have found that a foot plate on the soil injector prevents much of the arm and shoulder strain normally experienced with liquid injection.

Q: Textbooks say that red fescues are excellent for shaded areas, but now I find that research has developed Kentucky bluegrasses which are better. Can you comment on this?

A: All turfgrasses will grow better in sun than in shade but some are more tolerant of shade than others. The red fescues are the most shade-tolerant of the common lawn grass species. A few of the newer Kentucky bluegrasses such as 'Glade' and 'BenSun' will tolerate 60°-65° shade and have performed very well in our shade test plots. However, they did not outperform the red fescues.

Q: I have an American elm that is 80'-90' in height and 3'-4' in diameter. I don't want to lose this tree, but I would like to put young tulip and basswood trees in this wood lot. Is there a possibility that Dutch elm disease could be brought in on the young transplanted trees?

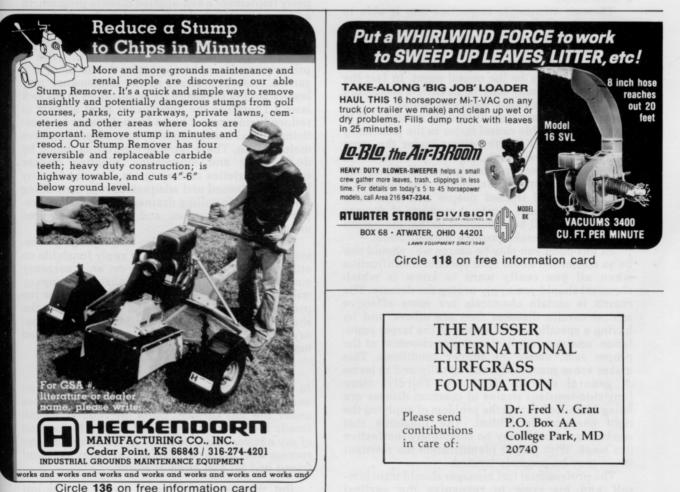
A: Tulip trees and basewood are not susceptible to nor are they carriers of Dutch elm disease. However, if your proposed woodlot planting would in any way weaken your American elm (for example, planting injury or increased competition) you may want to reconsider. Tests have demonstrated that some bark beetles are attracted to weakened trees and Dutch elm disease is spread by a bark beetle.

Q: What would cause the lower outer bark to split on newly transplanted trees? These trees are approximately 12'-14' tall and have a diameter of four inches. How would I eliminate this problem?

A: Winter injury and certain herbicides have been reported to cause bark splitting near the base of trunks of certain species. Both of these factors could cause injury of a general nature (as was apparently the case with your trees) or affect . specific trees. Without knowing the species or situation, diagnosis is pure guess work.

Herbicides should be used sparingly and with caution or not at all.

For prevention of winter injury, the young trees might be wrapped with burlap or other tree wrap in late fall. **WTT**



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