NYSFG New York State Flower Growers
INCORPORATED

BULLETIN 211 Secretary, Charles Wilton, Prattsburg, Steuben Co., N. Y. JUNE, 1963

Cornell Peat-Lite Mixes Find Ready Acceptance At Nassau County Parks

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In the Spring of 1962, Associate Agent, Norm Smith of Nassau County, set up a series of demonstrations using the Cornell Peat-Lite mixes with various fertilizer combinations at the Nassau County Park Greenhouses. These trials were run with the cooperation of Mr. Spencer Prentiss, County Horticulturist, and Mr. Harvey Reese, the Greenhouse Superintendent. At this time, mixtures were made up using Peat and Vermiculite (50% of each) plus limestone at 10 pounds per cubic yard and superphosphate at 2½ pounds per cubic yard along with 12 pounds of 5-10-5 fertilizer. Variations of this included the W. R. Grace "Magamp," 8-40-0 fertilizer at varying rates. These mixtures were placed in transplanting flats and seedlings of petunia, salvia, basil, marigold and snapdragon were transplanted into the flats. One row of each type was planted in each of the five different mixtures used. These were watched closely during the spring growing season and observed at the County Park by the Extension staff and also by the Greenhouse staff at the Park. Later in the season, these same plants were transplanted into trial plots, also located at the County Park for further observation.

As a result of the satisfactory results of this trial plus some additional trialing done during 1962, Mr. Prentiss and Mr. Reese decided to switch over to the peat-lite mixtures for the 1963 production season. When supplies were ordered in the late fall, materials were included to enable them to formulate the peat-lite mixes for the coming spring.

Over 60,000 annuals are grown in 3-inch peat pots for planting into beds in the park and throughout the County at highway intersections and other public use areas. In addition, thousands of geraniums, pansies, chrysanthemums, and spring flowering bulbs are planted to give a maximum amount of bloom throughout the year. The annual seedlings grown include petunias, salvia, begonia, marigold, zinnias, celosia, ageratums, amaranthus, coleus, alyssum, and basil.

Mr. Harvey Reese, Greenhouse Superintendent, Nassau County Parks, checks over seedlings germinated in Peat-lite Mix A. All of their seedlings were germinated in the mix with excellent results.

Mr. Reese indicated that the annual seedling production would be 100% in the peat-lite mixtures this year. They are committing their total production of bedding plants to the peat-moss–vermiculite mixtures and at this date are more than happy with the results. Most of the seedlings were germinated in Mix A with 5-10-5 added. They were then transplanted into flats with Mix A and later were transplanted into 3-inch peat pots in a mixture of ½ peat-moss and ½ vermiculite, plus 10 pounds of 8-40-0, plus 5 pounds of 5-10-5, plus 10 pounds of lime per cubic yard. From trials run last year, it is anticipated that the modified Mix A with the 8-40-0 would contain enough fertilizer to carry the plants through to planting time and in addition give them a reserve supply of fertilizer to keep them growing during the season.

Mr. Reese had some very interesting comments regard-

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Peat-lite mixes

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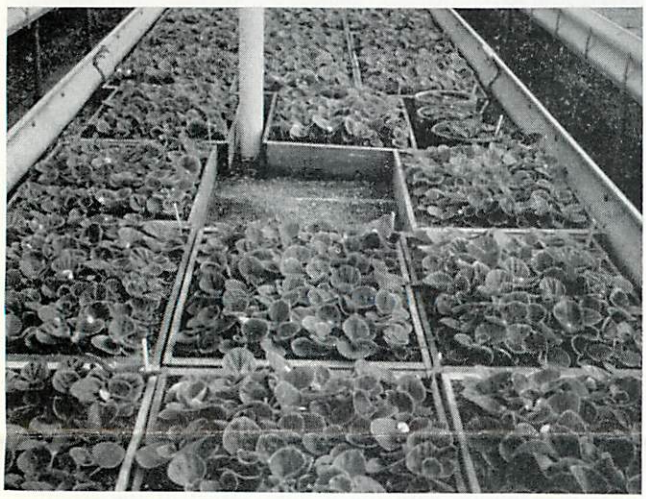
ing the use of the mixes and his experiences thus far with them. He indicates that their bedding plant crop is *ahead of last year by 4 to 5 weeks.* They are planning to start their schedule 4 to 5 weeks later next year for seed sowing. He anticipates no problem in being able to handle the same amount of material in a shorter span of time with the same planting crew. This is because the personnel necessary to water, ventilate, fertilize and transport the crops started early in the year under the present system, would be available to take care of the transplanting and handling if the season is shortened by 4 to 5 weeks. He feels the shorter season is a definite advantage, removing the possibility of over-watering or chilling or over-heating during the additional 4 weeks necessary to grow plants using other types of soil mixtures.

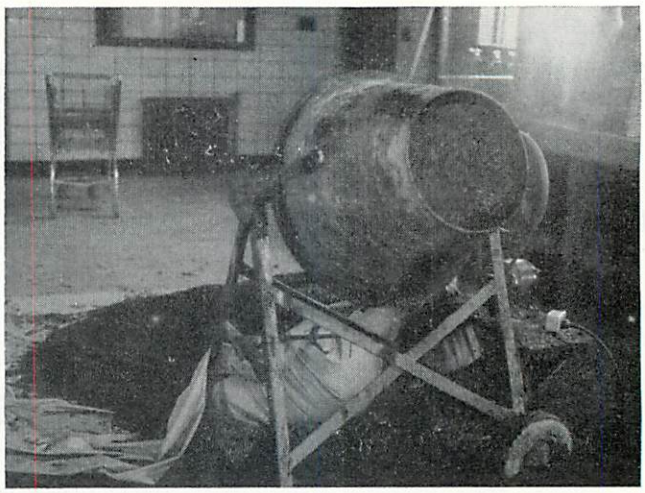
He indicates that the workmen are quite pleased with the handling qualities of the mixes. They are cleaner materials to work with and, of course, much lighter weight. There is no doubt at all that they would prefer to work with the peat-lite mixtures than with soil.

As far as costs are concerned, it is difficult to state definitely, but considering the cost of sterilizing soil mixtures and the increased labor involved in handling the heavier



These begonias were seeded January 10 and transplanted to Mix A on March 12. The picture was taken April 15. Excellent uniform growth was very evident.

soil mixtures, it apparently is not much more expensive to grow in the peat-lite mixture than it is under the field soil mixture set up. Actually Mr. Prentiss figures that labor efficiency is up about 30% over soil mixes. When 4 to 5 weeks of growing time can be cut from the annual crop, plus the possibility of growing additional cut flowers in the greenhouse space that is available, and the reduction of losses that can be anticipated, the peat-lite mixtures come out way ahead as far as cost is concerned. Mr. Reese estimates that they will be using about 640 bushels of the



This electric cement mixer turns out 1 bushel of mix at a time. Notice the plastic tarp on the floor where the finished mix is dumped. Every effort is made to keep it clean. After it has mixed for 1 - 2 minutes about ½ gallon of water per bushel is added to the mix. This wetting helps keep down the dust and ensures even mixing.

mixture this year to grow their annuals. They use baled sphagnum peat-moss and have not had to shred this material prior to mixing. They open the bales and loosen the peat-moss and use it directly as loosened.

They do their mixing in a one-bushel, electric cement mixer. They hope to be able to obtain a larger capacity machine for next year but even with the small machine, the mixing of the material is rapid enough to keep the planting crews busy. Mr. Reese mentioned that they add about ½ gallon of water per bushel after the materials have started to become mixed in the mixer. This cuts down on the dust problems and also helps in keeping the ingredients bound together. The material is watered again immediately before planting, and after planting it is thoroughly soaked to wash the material around the roots of the plants.

Mr. Otto Grumbach, who has charge of the actual planting of the beds throughout the County, said that this is the most promising thing to come along in plant growing in a long time. He sees no problem in handling the bedding plants in the peat-lite mixtures as opposed to soil. In fact, he said that the lighter weight of the mixes would reduce some of the drudgery involved in the planting of the beds because of the ease of handling. He also said that from his observations of the trials last year in the park with the mixtures, that they held up as well or better than those plants that were planted in the soil.

Mr. Reese emphasized that they are still learning to use the mixes but he feels that with a development such as this, if a grower works conscientiously with it, and adapts it to his situation, then it can certainly be made to do a better job than growing in soil with fewer losses and consistently top quality plants.