



Fig. 2. A seedling apple tree of Grove x (Winesap x Rome Beauty) parentage showing typical spur type growth habit at Blacksburg, Va.

Five seedlings that bore no fruit in 1963 were described as possibly having the spur type growth habit. Several others had characteristics suggesting spur type growth, but this can best be verified after the trees bear a crop of fruit.

As mentioned previously, Grove, as it grows at Blacksburg, has spur type growth. The unnamed V. P. I. seedling selection used as the pollen parent for the cross has been discarded, and the seedling records of the tree make no mention of its tree characters.

Table 1 lists other crosses growing in the same seedling orchard and presents data on the occurrence of spur type seedlings observed in 1963 in this orchard and in two other seedling orchards.

The data in Table 1 suggest that the spur type growth habit may have a genetic basis. The data are too limited

to permit genetic analysis, but it does appear that breeding for new varieties having the spur type habit of growth may be possible.

#### Literature Cited

1. Blodgett, E. C. and M. D. Aichele. 1960. Some notes on apple varieties. Washington State Department of Agriculture Bulletin No. 3, Olympia, Washington.
2. Stark, Paul, Jr. 1963. The spur-type tree . . . Will it replace the dwarf tree? American Fruit Grower. 83, No. 3-15, 44 and 45.

#### Apples in Israel

Your editor was fortunate to have been able to spend five weeks in Israel this Spring. At this time, I visited probably the largest apple orchard in the country of about 400 acres at Naot Mordechay, a kibbutz (collective farm) in northern Israel. Here I saw six-year old apple trees on East Malling and Chashabi (native) dwarfing rootstocks, planted 7 x 16 feet, producing about 1000 bu. per acre.

The variety Orleans, a Delicious type, performs well there. It is very productive, and colors better than the red sports of Delicious. Medina also does well for them.

Because of mild winters, the Israeli apple grower sprays his trees with oil during the dormant season in order to break their rest period. The spray also controls many insects.

Apple trees in Israel often suffer from iron induced chlorosis due to high soil pH, according to Bezalel Avni, manager of the orchard at Naot Mordechay. He finds that neutral zinc applied with the dormant oil sprays, or one pound of Sequestrone 138 applied to the soil in April reduce the chlorosis effectively.

They are also trying some light hedging and topping with mechanical pruners to reduce labor.