

ABSTRACTS

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SUSCEPTIBILITY OF AVOCADOS TO THE MEXICAN FRUIT FLY

A study was made of the infestations of avocados by **Anastrepha ludens** Loew, under both field and laboratory conditions. Field studies were made in fifteen states of Mexico. The average annual rainfall and average number of days with frost are shown.

From time to time avocados infested with the Mexican fruit fly have been intercepted at the United States - Mexican border. They had also been found in the market and collected in the field prior to this study. However when 4,774 avocados were dissected in the field in May and June 1955, no larvae were found.

In 1956 avocados were brought to the laboratory and held over moist sand to permit larvae to mature, leave the fruit and pupate. By this method 165 *Anastrepha* flies were recovered from 3839 fruits. In some localities other species of flies were recovered.

In most collections of avocados a small fly, **Carpolonchaea pendula** Bezzi, has been recovered in large numbers. This fly is reported to be a scavenger, but in several collections it emerged from sound fruit. Having a wide host range it has been reared from twenty-two species of fruits.

Three collections were made in Jungapeo, State of Michoacan, from trees inter-planted with mangoes. In the first collection in March, before the mangoes had matured, 34 **Anastrepha ludens** were recovered from 445 avocados. In late April a second collection of 1600 Avocados produced only 5 flies, and in early June, at the peak of the mango season, no flies were recovered from 900 avocados. All collections were made in the same area and included many varieties.

These findings indicate that avocados are not a preferred host. In areas where primary hosts are abundant and develop heavy local fly populations, avocados may become infested when more suitable fruits are not plentiful. Avocados have a certain amount of resistance to Mexican fruit fly. **Guy L. Bush, Jr. Journ. Rio Grande Valley Hort. Soc. 1957, Vol. 11, p. 75.**

COLD HARDINESS AND SALT TOLERANCE OF AVOCADO TREES

The cold hardiness and salt tolerance of two-year-old avocado trees were tested under controlled conditions at the Texas Experiment Station in the Rio Grande Valley. Six varieties were tested for salt tolerance and four for cold hardiness.

The Lula variety (West Indian X Guatemalan hybrid) showed high salt tolerance and low cold hardiness. In general the varieties of Mexican race showed low salt tolerance and

high cold hardiness. Among the most hardy of the Mexicans were Castro and Pancho, while three seedling strains selected from the Arsola plantation at Llera, state of Tamulipas, Mexico, Nos. 1-18, 5-6, and 29-9 were almost as hardy. A Mexican-West Indian hybrid Arsola 1-18 showed the best combined salt tolerance and cold hardiness. **Wm. C. Cooper, Norman Maxwell, and Geo. Otey. Journ. Rio Grande Valley Hort. Soc. 1957, Vol. 11, p. 67**

AVOCADO VARIETIES IN TEXAS

Beginning in 1950 sixty-two varieties and strains of avocados are being tested at the Weslaco experiment station. Selections from northern and central Mexico predominate with a few from California, Florida and a few Texas seedlings.

In 1956 a good fruit yield was obtained on the older trees including Atlixco Nos. 14382 and 14369. The heaviest yield was from a Booth 8 tree from Florida.

The following kinds showed most promise for Rio Grande Valley conditions: Diaz, R No. 1, Lula and Booth 8. The two Atlixco strains mentioned above bore for the first time, the fruit being outstanding in flavor and texture of flesh. Arsola 29-9 fruited for the first time and was of excellent quality. **Norman P. Maxwell, Journ. Rio Grande Valley Hort. Soc. 1957, Vol. 11, p. 79.**