

Food stamps

The 1973 act extends the Food Stamp Program through June 30, 1977. All states are required to implement the food stamp program in every political subdivision by June 30, 1974. Coupon allotments will be adjusted semi-annually to allow for food price changes. Food coupons may now be used to purchase imported foods, including meats, as well as seeds and plants for home gardens. The bill offers extended benefits to elderly, blind and disabled persons, as well as to drug addicts and alcoholics under certified treatment or rehabilitation programs. Food stamps must be available for issuance to qualified persons twice monthly, and they may be deducted from public assistance checks if the participating household so elects.

Other provisions

The 1973 act establishes a long-term program for sharing the cost of conservation practices on private lands. This provision will be implemented in lieu of the controversial Rural Environmental Assistance Program (REAP) and Water Bank programs, which the Nixon administration refused to fund in fiscal year 1973. The new act supports permanent conservation practices under contractual agreements with farmers for up to 25 years.

A forestry incentive program established by the act is intended to encourage increased production of timber on small tracts of private land. Financial and technical assistance will be offered landowners under a government/owner contract. The new act eliminates the requirements for state approval of loans and grants under the Rural Development Act.

Conclusion

The 1973 Farm Act (S. 1888) represents a significant change in U. S. farm price and income policy. Its target prices are designed to encourage increased production of basic food and fiber crops: no government farm program since World War II has explicitly pursued this objective. The act is a compromise between the administration's desire to move the government out of agriculture, and congressional pressures to support farm prices and incomes at relatively high levels. Producers of those agricultural commodities covered or affected by the act should carefully assess the probable impact of the program on their operations during its four-year duration.

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Control of

STRAWBERRY FRUIT

caused by *Botrytis*

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STRAWBERRY FRUIT ROT caused by *Botrytis cinerea* is a serious disease in central coastal areas. The disease can be found on all varieties during most of the fruiting season. Plants are particularly susceptible during periods of persistent rains in the spring, or low fog during the summer—both conditions leaving plants moist all night and part of the day.

Infected fruit first show one or more light tan soft spots on the surface. The spots enlarge rapidly until the entire fruit is affected. In conditions of high humidity, surface mycelium develop, producing an abundance of spores giving the characteristic appearance of "gray mold" (*Botrytis*). Although the fungus usually attacks through senescent petals, stamens or other delicate plant tissue, it is also able to penetrate the unbroken skin of the berry.

Newer systemics

Studies were initiated in 1971 to determine if some of the newer systemic fungicides (Benlate, Topsin M, Mertect) help control this disease. Four tests were conducted, two in 1972 and two in 1973. Two were in commercial fields and two on experimental plots near Watsonville. In each test the foliar sprays were applied when the first flowers began to open in the spring. The treatments were repeated every 14 days, except during rain. On those occasions the treatment interval was reduced to seven days. Sprays were applied with a hand sprayer operated at a constant 35 psi. All applications were

made at a rate of 300 gpa. A spreader sticker, Triton B1956, was added at a rate of 6 ounces per 100 gallons of water. Polyethylene bed mulch was used on all plots.

1972 tests

Winter-planted Tioga, summer-planted Tufts and second year Shasta varieties were used in the 1972 tests. The Tioga plots consisted of four replications and 18 plants per plot planted 6 inches apart (34,862 plants per acre). Total yield in weight, number of berries and number of rotten berries per plot is shown in table 1. Sample harvests were taken on the Tufts and Shasta plots during the 1972 picking season. A single application was used for each fungicide with four replications of 12 plants per plot. As shown in table 2, all three fungicides significantly reduced the percentage of fruit infection. Mertect treatments at the 16 oz rate showed significantly more rot on several picking dates than the other treatments. There was no significant difference between

TABLE 1
TREATMENT, YIELDS AND BOTRYTIS INFECTION LEVELS
FOR WINTER PLANTED TIOGA, 1972 HARVEST

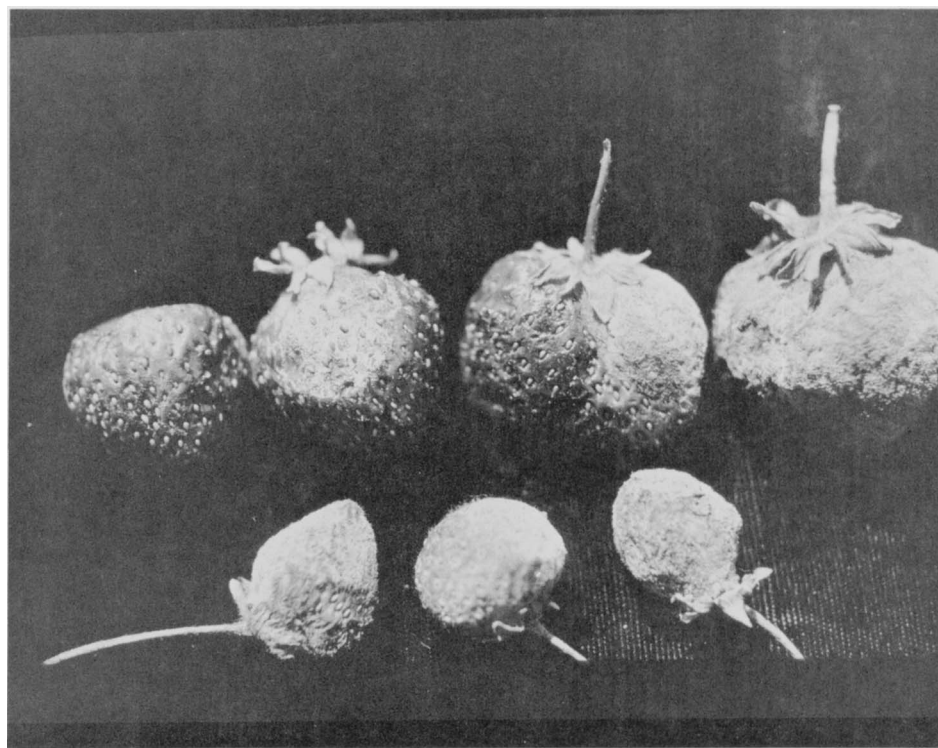
Treatment	Rate/ 100 gal	Grams of fruit/ plant	No. fruit infected/ plant
Check	—	354a*	58a*
Topsin M (70W)	6 oz	388b	4b
Topsin M (70W)	12 oz	431c	2b
Benlate (50W)	8 oz	379b	4b
Mertect (42%F)	16 fl oz	398b	9b
Mertect (42%F)	32 fl oz	384b	8b

* Numbers not connected by a common letter sign, differ at 1% level.

ROT

cinerea

ROYCE BRINGHURST



Topsin M and Benlate at either dosage rate, or Mertect at the 32 oz rate.

The Tioga variety planted in early August was used for the 1973 tests. Five replications were made, using 12 plants per plot. Table 2 summarizes the results from four different harvests. Again all three fungicides significantly reduced fruit infection.

During the 1973 picking season, berries from the Tioga plots were harvested immediately after spraying and three days later. They were held in cold storage (42°F) from four to six days and at room

Gray mold on strawberries, above, is characteristic of strawberry fruit rot infection caused by *Botrytis cinerea*.

temperature for 48 hours. Three pint baskets per plot were used in each of these storage tests. Storage experiments for both the zero and three-day wait after treatment were repeated twice. The results of these storage tests are reported in table 3.

All three fungicides significantly reduce the incidence of rot in stored fruit. With two exceptions, there were no significant differences between fungicides or

dosage rates. High temperature prior to the May 21 picking date resulted in high rot counts.

There were no significant differences in performance of the three chemicals, except for the 16 oz rate of Mertect in the four tests conducted over a two year period. Some protection after harvest can be expected if berries are picked within four days of treatment. Possibly this protection could extend longer than the period tested.

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TABLE 2
BOTRYTIS INFECTION LEVELS
AFTER VARIOUS FUNGICIDE TREATMENTS ON THREE STRAWBERRY VARIETIES

TUFTS—SUMMER PLANTED, 1972		Percent fruit infected			
Treatment		May 4	May 18	June 1	June 7
Material	Rate/100 gal				
Check	0	18a*	31a	22a	10a
Mertect (42%F)	16 fl oz	6b	11b	7b	2b
Benlate (50W)	8 oz	3b	6c	4c	2b
Topsin M (70W)	6 oz	4b	5c	3c	2b
SHASTA—SECOND YEAR, 1972					
Check	0	—	12.5a	14.2a	11.8a
Mertect (42%F)	16 fl oz	—	2.4b	3.6b	2.5b
Benlate (50W)	8 oz	—	1.1c	2.1b	1.4c
Topsin M (70W)	6 oz	—	1.0c	1.9b	1.6c
TIOGA—SUMMER PLANTED, 1973		Percent fruit infected			
		May 21	May 25	May 30	June 4
Check	0	36.6a	6.0a	5.6a	21.1a
Benlate (50W)	8 oz	.8b	1.3b	1.8b	1.2c
Topsin M (70W)	6 oz	1.1b	1.4b	.7b	1.8c
Topsin M (70W)	12 oz	.6b	2.5b	.8b	2.1c
Mertect (42%F)	16 fl oz	.9b	1.8b	.2b	12.0b
Mertect (42%F)	32 fl oz	1.3b	1.0b	.9b	5.6c

* Numbers not sharing common letter within a column, within an experiment differ at the 1% level of significance.

TABLE 3
BOTRYTIS INFECTION LEVELS AFTER STORAGE
FOLLOWING TREATMENT ON THE TIOGA VARIETY DURING 1973

		Percent fruit infected			
Treatment		Treated May 21		Treated June 8	
Material	Rate/ 100 gal	May 21 Harvest	May 25 Harvest	June 8 Harvest	June 12 Harvest
Check	0	63.5a*	17.0a	38.0a	48.9a
Benlate (50W)	8 oz	32.5b	6.3c	8.5c	27.3b
Topsin M (70W)	6 oz	33.3b	14.6b	9.4c	18.5b
Topsin M (70W)	12 oz	38.4b	14.8b	8.9c	26.9b
Mertect (42%F)	8 fl oz	39.6b	9.8c	19.4b	17.7b
Mertect (42%F)	16 fl oz	45.9b	10.7bc	8.7c	16.5b

* Numbers within a column not sharing common letter differ at 1% level of significance.