ferent tissues vary. Growth of chorionic tissue was observed in every case and contractions of the heart region were observed in a few instances. However, distortion of the brain vesicles and eye cups was observed in every case after deep-freezing. It seems, then, that tissue of mesodermal origin may withstand deep-freezing better than that of ectodermal origin.

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Lack of Protective Effect of Allyl Thiourea Against X-Irradiation[1]

Robert N. Feinstein and Gladys J. Cotter

USAF Radiation Laboratory and
Department of Biochemistry,
University of Chicago, Chicago, Illinois

Alexander and Fox (*1*) recently found a correlation between the ability of various agents to protect animals against x-rays and the ability of these agents to protect polymethacrylic acid from radiation-induced loss of viscosity. The most effective agent they tested in their polymer system was allyl thiourea, and they pointed out that this chemical had never been tested biologically.

We have found that allyl thiourea does not protect mice from the lethal effects of whole body x-irradiation, and it therefore appears that the interesting polymer system of Alexander and Fox may not be used as an *in vitro* test of *in vivo* protective action.

TABLE 1

EFFECT OF ALLYL THIOUREA ON LETHALITY OF WHOLE BODY X-RADIATION TO MICE*

Expt.	Allyl thiourea (mg/kg)	X-rays (r)	Lethality	Av length of survival (days)
1	0	800	16/16	11.9
	250	0	0/16	—
	250	800	16/16	8.9
2	0	750	16/16	10.3
	35	750	16/16	7.0
	100	750	16/16	9.6
	250	750	16/16	10.7
	250	0	0/16	—

* Mice were Carworth Farm males, age approximately 60 days. Allyl thiourea freshly prepared for each use and injected within 15 min before beginning x-radiation. X-Ray factors: 250 KVP, 15 ma, ¼ mm Cu + 1 mm Al, 60 cm target distance. Rate: 60 r/min in expt. 1; 53 r/min in expt. 2. Lethality is expressed as the number of deaths over the total number tested.

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Allyl thiourea is relatively nontoxic and soluble and may be given intraperitoneally to mice at a dose rate of 250 mg/kg without effect. In the experiments reported here we administered 750 or 800 roentgens of whole body x-radiation to our mice; these doses are 100% fatal, but appreciable percentages of mice may be saved from these doses by sodium azide, cysteine, or other agents shown by Alexander and Fox to be less effective than allyl thiourea in their polymer test system.

The results of two experiments are given in Table 1, which indicate no protective effect whatsoever of allyl thiourea. In fact, in some cases the drug, though without toxicity itself, seems to hasten the lethal result of the x-radiations.

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Photoperiodic Behavior of Medium-Early Varieties of Rice

Gadadhar Misra[1]

Department of Botany,
Ravenshaw College, Cuttack-3, India

The effect of short days of 10 hr (8:00 A.M.–6:00 P.M.) on the flowering behavior of medium-early rice (*1*) has been studied. Three varieties, T.3 (a selection from Basamati of Dehradun), T.12 (a selection from Hanshraj of Unnab district), and T.21 (a selection from Chawal of Rampur State), grown in Uttar Pradesh, were used in pot-culture experiments. Pure seeds of these varieties, obtained from Nagina Rice Research Station, U.P., after a preliminary selection for uniformity by eye, were sterilized in 0.2% formalin, thoroughly washed in distilled water, and sown on June 18, 1949. Germination was complete in 5–6 days. Short-day treatment[2] was started in the seed bed with 7-day-old seedlings. Short days were given for periods of 3, 4, 5, and 6 wk to separate seed beds. The treatments

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[2] Short-day treatment consisted of a daily 10-hr exposure to natural daylight in the open field, from 8:00 A.M. to 6:00 P.M. For the remainder of the 24-hr cycle, i.e., from 6:00 P.M. to 8:00 A.M. of the next day, the pots were removed to a well-ventilated dark room.

Long-day treatment consisted of a 24-hr continuous illumination obtained by supplementing the natural daylight with artificial illumination from a 1000-w gas-filled Osram bulb. The bulb was hung at a height of 5 ft, and the intensity of light falling on the surface of the soil, as measured by a Weston phototronic foot-candle meter, was 30–40 ft-candles. The pots were arranged in concentric circles on the ground and their respective positions were interchanged every day so that each pot received almost the same intensity of light.