## January 1966

TECHNICAL NOTES

next fly and the injection repeated until the meniscus has reached the last visible calibration mark. Then the tubing can be drawn through the wire holder until the meniscus is repositioned at the first calibration mark and the next fly injected. Thirty flies can be fastened to the tape and injected in about 10 minutes. After injection the flies can be brushed from the tape with only minor damage to their wings. If the micropipette eventually becomes exhausted of liquid to be injected, more liquid can be sucked in without delay.

The volume of liquid delivered can be closely estimated by assuming the bore of the tubing to be uniform, sucking up a known volume of water, and measuring the length of tubing filled. An apparatus was checked by injecting dye into aliquots of buffer and found to deliver 0.164 microliters per millimeter injection (S.E. 0.014) over six millimeters. If millimeter injections were all made between the same two calibration marks the S.E. was lowered to about 0.01.

If quantitation is unimportant the apparatus can, of course, be used without the wire holder. Mortality is less than 5% if the flies are not overetherized. While the above description has been devoted to imago injection, the apparatus can be used to inject larvae or pupae or to deliver transplants if the micropipette is fashioned properly.

This investigation was supported by Public Health Service Grant AI-05038-03.

Marques, E. K., <sup>1</sup> Marly Napp<sup>1</sup>, Helga Winge<sup>2</sup> and A. R. Cordeiro<sup>2</sup>. Universidade do Rio Grande do Sul<sup>1</sup>, Universidade de Brasília<sup>2</sup>, Brazil. A corn meal, soybean flour, wheat germ medium for Drosophila.

This medium is inexpensive, its components are easily stocked and less variable than the one with bananas. The wheat germ and the small amount of soybean makes it very rich and productive. It can be autoclaved at higher temperatures than the banana agar food.

Composition:

Water		• •	•	•	•	14	liters
Wheat germ			•	•	•	500	g
Wheat flour	• • •		•	•	•	250	g
Corn meal	• • •		•	•	, 1	. <b>9</b> 50	g
Soybean flour	• • •	• •	•	•	•	100	gʻ
Sugar	• • •	•••	•	•	• 1	.550	g
Moldex (Nipagin or	Tegose	ept 1	M)	•	•	45	g
Salt (NaCl)	• • •	• •	•	•	•	15	g 3
Hydrochloric acid	0,3 N.	• •	•	•	•	115	cm

These proportions of wheat germ, wheat flour and soybean flour were adopted as a result of a factorial experiment using several species of Drosophila.

It is advisable to mix well the weighted dry flours with the moldex, packing them in the desired amounts. These packages can be sterilized to destroy any parasites (mites, fungi, etc.). This mixture is poured in tap water in which sugar and salt were added and they are boiled about ten minutes. The hydrochloric acid solution is then added. After about ten more minutes the mixture can be poured in the vials.

Mossige, Jeanne Coyne. Norsk Hydro's Institute for Cancer Research, Oslo, Norway. Fermented yeast for egg collection. When large numbers of eggs are to be collected over a short period of time, the addition of acetic acid and alcohol to the yeast have been reported to stimulate oviposition. These procedures have im-

proved egg laying, but none has been found to be consistently reliable, as is the following. Mix about 1/4 teaspoon of granulated sugar with 50 g of bakers yeast along with just enough water so that the mixture can be stirred with a spoon. This is covered and left in a thermostat at 25° for an hour or more, by which time it will be a foamy, spongy mass. When stirred with a spoon the CO, is released and the volume decreases. This yeast can then be spread or dropped on an appropriate surface for collecting eggs. It is readily manipulated as long as it is not too moist, and it consistently stimulates the females to lay large numbers of eggs.