

**EFFECT OF BITTER MELON (*Momordica charantia* L.) FRUIT EXTRACT ON  
REPRODUCTION ASPECT OF FEMALE SWISS WEBSTER MOUSE  
(*Mus musculus* L.)**

**Hernawati<sup>1</sup>, Didik Priyandoko<sup>1</sup>, Astie Desiyanti<sup>2</sup>**

<sup>1</sup>Hernawati,<sup>1</sup>Didik Priyandoko  
Jurusan Pendidikan Biologi  
FPMIPA Universitas Pendidikan Indonesia  
Jl. Dr. Setiabudi No.229 Bandung 40154  
Telp./Fax. 022-2001937  
Email : [hernawati\\_hidayat@yahoo.com](mailto:hernawati_hidayat@yahoo.com)

<sup>2</sup>Alumni Mahasiswa Biologi FPMIPA UPI

**ABSTRACT**

Research on effect of Bitter melon (*Momordica charantia* L.) fruit extract on the reproduction aspect of Swiss Webster female mouse (*Mus musculus* L.) has been performed. This research purpose is to determine the effect of Bitter melon fruit extract on the hormone estradiol concentration, amount of child, child weight, and mains weight. Indonesia represents very rich tropical state crop type of drugs, especially as a means of natural contraception. Was known there are 52 crop types which there in Indonesia measure up to anti-fertility (Chubert and Wong, 1986). One of them is fruit of Bitter melon. Counted 60 tail of female mouse which have adult grouped to become two group, that is group 1 (hormone test) and group 2 (marry test) in a simple Complete Random Device. Dose of fruit extract of Bitter melon to be passed to attempt animals that is 0, 100, 250, 500, 750, and 1000 mg/kg weight, five time repetition. Bitter melon fruit extract given by oral using needle of gavage every two day during 10 times. The result of research and statistically analysis showed that fruit extract of Bitter melon have given influence to degradation concentration of estradiol in blood serum  $F_{hit} = 10,382$ ;  $F_{tab} = 2,620$  (  $dk=24$ ,  $P=0,05$ ). Dose of Bitter melon fruit extract having an effect on significant to degradation concentration of estradiol is dose 500, 750 and 1000 mg/kg weight. Fruit extract of Bitter melon passed to female mouse also give influence which is significant to degradation of borne child amount  $F_{hit} = 2,813$ ;  $F_{tab} = 2,620$  ( $dk=24$ ,  $P=0,05$ ). Dose that having significant effect to degradation of born child amount is dose 1000 mg/kg weight. But its effect is not real to child weight which born  $K_{hit} = 6,786$ ;  $K_{tab} = 11,1$  (  $dk=5$ ,  $P=0,05$ ),that way also Bitter melon fruit extract not have an significant effect on group 1 (hormone test) mains weight  $F_{hit} = 2,494$ ;  $F_{tab} = 2,62$  (  $dk=24$ ,  $P=0,05$ ), and also not have significant effect at group 2 (marry test) mains weight  $K_{hit} = 9,305$ ;  $K_{tab} = 11,1$  (  $dk=5$ ,  $P=0,05$ ). It could be concluded that dose was have significant effect to reproduction aspect of female mouse is dose 1000 mg/kg weight.

Keyword : Bitter melon, estradiol, amount of child, child weight, mains weight, oral, gavage.