

EFFECTS OF GRAMAXONE PP910 AND WESCOMINE
ON THE ACETYLCHOLINESTERASE ACTIVITY IN
HARUAN FISH BRAIN, *Channa Striatus*

KEETHANCHALI A/P NAGARETNAM

FAKULTI PERIKANAN DAN SAINS SAMUDERA
UNIVERSITI PERTANIAN MALAYSIA
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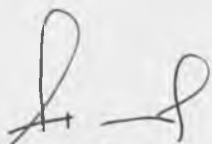
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Nama Penuntut : Keethanchali a/p Nagaretnam
No. matrik : 34165
Nama Penyelia Utama : Dr. Abdul Manan Bin Mat Jais
Tajuk Projek : Effects of Gramaxone PP910 and
Wescomine on the
acetylcholinesterase activity in
haruan brain , *Channa striatus*.

Dengan ini disahkan bahawa saya telah menyemak laporan akhir projek ini dan

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**THE EFFECTS OF GRAMAXONE PP910 AND WESCOMINE ON THE
ACETYLCHOLINESTERASE ACTIVITY IN THE HARUAN FISH
BRAIN , *Channa striatus***

BY

KEETHANCHALI D/O NAGARETNAM

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**Faculty of Fisheries & Marine Science
Universiti Pertanian Malaysia
43400 UPM Serdang
Selangor Darul Ehsan**

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Specially dedicated to my belated father

AND

My K T P Collegians

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ABSTRAK

Kesan toksik racun rumpai Gramaxone PP910 and Wescomine telah dikaji ke atas ikan haruan , *Channa striatus*. Kajian dilakukan dengan menggunakan kaedah LC_{50} ke atas ikan bersaiz $9.70 + 1.21$ cm panjang dan 10.02 ± 4.11 gram selama 48 jam. Kepekatan larutan pendedahan bagi kedua - dua racun rumpai adalah 0.00 ppm , 5.00 ppm , 10.00 ppm , 15.00 ppm dan 20.00 ppm.. LC_{50} bagi Gramaxone bagi 48 jam adalah 3.00 ± 1.15 ppm dan Wescomine adalah 2.50 ± 1.00 ppm. Seterusnya , aktiviti spesifik enzim AChE pada otak ikan haruan , *Channa striatus* , di kaji mengikut keadah Ellman. Dari kajian yang dilakukan , didapati kepekatan racun rumpai yang digunakan tidak merencat aktiviti enzim. Aktiviti enzim AChE mula direncat pada kepekatan melebihi 1 ppm. Aktiviti spesifik enzim AChE mula direncat pada kepekatan melebihi 1 ppm . Aktiviti spesifik enzim AChE bagi Gramaxone adalah 30.50 ± 4.95 u mol / min / mg. protein dan Wescomine adalah 30.50 ± 7.42 u mol / min / mg. protein pada kepekatan 1.00 ppm . Dari penyelidikan ini , didapati bahawa , Wescomine adalah lebih toksik dari Gramaxone. Tetapi kedua - dua racun rumpai adalah toksik pada organisma akuatik.

ABSTRACT

Toxicity of Gramaxone PP 910 and Wescomine were studied on snake head, *Channa straitus*, sized 9.70 ± 1.21 cm and 10.02 ± 4.11 gram, by determining the 48 hour LC_{50} screening. The concentration used was 0.00 ppm, 5.00 ppm, 10.00 ppm, 15.00 ppm and 20 ppm for both herbicides. The 48 hour LC_{50} for Gramaxone was 3.00 ± 1.15 ppm and Wescomine was 2.50 ± 1.00 ppm. Subsequently, the specific activity enzyme for AChE in the snake head's brain tissue was determined by using the Ellman method. The brain tissue was not inhibited by the concentration used but it was found that it was more than 1 ppm for both herbicides. The specific activity of AChE for Gramaxone PP110 is 30.50 ± 4.95 u mol / min / mg protein and Wescomine is 30.50 ± 7.42 u mol / min / mg protein. From this point, it shows that Wescomine is more toxic than Gramaxone to aquatic organisms.