Title of the paper (Ariel Narrow, 26pt, Bold, Left, Sentence case with capitalized first letter for proper nouns and the like)

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ABSTRACT *Ganoderma boninense* is a basidiomycetes fungus that causes basal stem rot disease (BSR) in oil palm trees. In Malaysia alone, the loss caused by this disease was estimated between RM 225 Million to RM 1.5 Billion in 2011 by Malaysian Palm Oil Board. Unfortunately, many planters do not realize that their fields were infected with BSR until it is too late. Several methods have been proposed for early detection of *Ganoderma boninense* infection. In this paper, Fourier transform infrared spectroscopy (FTIR) is investigated as a tool to detect the presence of *Ganoderma boninense* in oil palm tree.....(Ariel Narrow,11pt, Justify, Single Spacing).

KEYWORDS: Watercress; Gluconasturtiin; PEITC; Myrosinase activity; … (Please provide 5 suitable keywords)
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Original Article / Review Article / Data/plot With Detail Description / New Method/Instrumentation / Negative Results With Critical Argument / Concept/Design Study / New Addition / First Records / Short Communication

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INTRODUCTION (headings should be written in UPPER-CASE)

Oil palm (*Elaeis guineensis* Jacq.) has been known as a truly "golden crop of Malaysia" since it generated profitable export earnings for the country and truly nature's gifts for alleviating poverty in Malaysia (Basiron - family name, 2007 - for single author; Alexander & Chong, 2013 - for 2 authors; Yunus & Radhakhrisnan, 2004). However, the oil palm industry is being jeopardized with one major disease known as Basal Stem Rot (BSR) which is mainly caused by *Ganoderma boninense* (MPOB, 2012). This disease causes serious threat to the oil palm industry in the Southeast Asian countries, especially Malaysia and Indonesia (Joy *et al*., 2001 - use *et al.* for more than 2 authors), as which are of the major producers and exporters of palm oil in the world. Linares (2011) on the other hand found that … However, according to Corley and Tinker (2003) infection of this disease can cause numerous yield losses and ultimately result in the destruction of basal tissues hence death of disease palms.....(please provide single enter spacing between paragraph)

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Glucosinolates (GLS) are sulphur-containing secondary metabolites found largely in cruciferous vegetables. Certain GLS are precursors to health-promoting isothiocyanates (ITCs). Watercress (*Nasturtium officinale*) contains phenyl ethyl GLS (PEGLS) or its common name, gluconasturtiin (Williams *et al*., 2009). The hydrolysis product of PEGLS, i.e. phenyl ethyl ITC (PEITC), is proven to restrain the growth of cancer cells (Gill *et al*., 2007). Gupta *et al*. (2014) have published a comprehensive

review on the anti-cancer effects of PEITC. However, the formation of PEITC is easily affected by various factors such as temperature, pH and presence of additives (Eylen *et al.*, 2008). PEGLS is hydrolyzed into PEITC by the naturally-occurring enzyme myrosinase in plants. This aspect needs to be investigated further because food preparation commonly involves cutting, heating and addition of other additives which may affect the PEITC formation. Currently, there are still scarce reports on the dynamic of hydrolysis of PEGLS in watercress under various external factors. Thus, this paper described the effects of temperature and pH on myrosinase activity and PEGLS hydrolysis products in watercress.

BACKGROUND THEORY

The Beer-Lambert Law (First level subheading - in title-case and **bold**)

Protocorm proliferation and regeneration were investigated on KC medium (Knudson C, 1946) supplemented with 2% (w/v) sucrose and treated with organic additives or plant growth regulators. Four types of organic additives tested are coconut water, tomato juice (10%, 15% and 20% v/v), banana pulp (25, 75 and 125 g/L) and peptone (2 g/L). Plant growth regulators tested in this study are Naphthalene acetic acid (NAA), Zeatin and 6-Benzylaminopurine (BAP) at concentrations of 2, 4, 6 µM, respectively. Basal medium devoid of any organic additive or plant growth regulator served as control. The medium pH was adjusted to 5.3±0.02 and solidified with 0.8% (w/v) agar (Sigma) prior to autoclaving for 20 min at 15 psi, 121°C. The cultures were maintained at 24±2 ^{0}C under a 24 h d^{-1} photoperiod with a PPF of 20–50 µmol $m^{-2}s^{-1}$ provided by cool white, fluorescent tubes (Philips, Malaysia).

The following (Equation 1) is an example how equation is written given as:

$$A_{\lambda} = \log(1/R_{\lambda}) = c\varepsilon_{\lambda}I \quad (1)$$

where A_{λ} is absorption, R_{λ} is reflection, c is the concentration of the ingredient, e_{λ} is extinction coefficient of the ingredient for wavelength λ, and I is the pathlength of the light through the sample. All equations must be cited and/or mentioned in the main body text.

METHODOLOGY

Sample Collection (First level subheading - in title-case and **bold**)

Healthy and infected tissues samples were collected from oil palm plantation …..

Sampling site and duration (Maximum second level subheading written in *Italic* and in sentence-case)

Healthy and infected tissues samples were collected from oil palm plantation in Sandakan, Sabah, Malaysia. Collection of trunk tissues was carried out following the method described by (Chong, 2012).

Sampling transportation and preservation

To maintain the sample conditions, they were transported in a container with vibration isolator (Chong, 2012).

Preparation of Buffered Water and Bligh-Dyer (First level subheading - in title-case and **bold**)

300 ml of double distilled water was transferred into a separating funnel and 2.04 g potassium dihydrogen phosphate (KH_2PO_4) was added to create a 0.05 M solution. The pH was adjusted to pH 7.2 by addition of sodium hydroxide (NaOH) pellets and the mixture was extracted with 3 x 50 ml dichloromethane (DCM). The Bligh-Dyer solvent mixture was made up using buffered water: chloroform: methanol with ratio 4:5:10, respectively.

RESULT AND DISCUSSION

In this result, the presence of *Ganoderma* in the infected tissue was detected with the similar peak absorbance in region..... as shown in Figure 1. Table 1 specify the wavelength of the functional group …

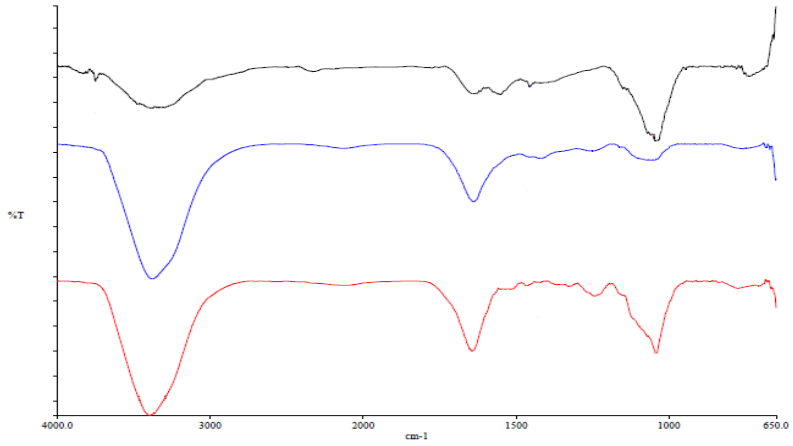

Figure 1. FTIR spectra of *Ganoderma boninense*, healthy oil palm trunk tissues and infected oil palm trunk tissues (Alexander & Chong, 2013). (Palatino Linotype, 11pt, centred, single spacing. If the caption is more than one line, please make it justify)

Table 1. Functional Group of *G. boninense* mycelia and healthy oil palm trunk tissues. (Palatino Linotype, 11pt, centred, single spacing. If the caption is more than one line, please make it justify)

Wavelength (cm^{-1})	Functional group	
	Ganoderma boninense	Healthy trunk tissue
3500-3200		O-H (phenol)
3400-3200	N-H (amine)	
1650-1600	C=O (amide)	C=O (amide)
1580-1500	C=N (imine)	
1470-1450	C-H (alkane)	
1400-1390		C-O(carboxylic acid)
1250-1000	C-O-C (ether)	
1100-1000		Si-O (silicone)

CONCLUSION

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ACKNOWLEDGEMENTS

If the research is funded, please do not forget to include the funding grant name and number/code.

REFERENCES (Arrange the reference list in alphabetical order with numbering, in Palatino Linotype, 11pt. Provide the name of all authors and **DO NOT USE et al. IN THIS REFERENCE LIST.** Please make sure all references are cited in the text.)

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