

Author:

¹Mohd Sham Kamis, ²Nik Abdul Rahim Nik Abdul Ghani, ³Luqman Hakim Satiman, ⁴Sim Siong Fong, ⁵Syed Ahmed Abdallah

Affiliation:

^{1,3,4}Universiti Malaysia Sarawak, Malaysia

²Universiti Kebangsaan Malaysia, Malaysia

⁵Dar Ifta Comoros, Comoros Island, Union of the Comoros

Corresponding author:

*nikrahim@ukm.edu.my

Doi: 10.32332/milrev.v4i2.10367

Dates:

Received 16 March, 2025

Revised 02 May, 2025

Accepted 29 June, 2025

Published 21 July, 2025

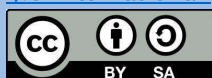
Copyright:

© 2025. Mohd Sham Kamis et al.

This work is licensed

under [Attribution-ShareAlike](https://creativecommons.org/licenses/by-sa/4.0/)

[4.0 International](https://creativecommons.org/licenses/by-sa/4.0/)



Read Online:



Scan this QR code with your mobile device or smart phone to read online

Contemporary Fiqh Perspectives on *Istihalah*: A Case Study of Black Soldier Fly Larvae in Animal Feed Practices in Malaysia and Indonesia

Abstract: This study uses a qualitative research design, which is well-suited for examining problematic jurisprudential arguments within Islamic law. Practically, Indonesia and Malaysia serve as key case studies due to their strict adherence to Shafi'i jurisprudence and the varying interpretations of halal certification bodies such as the Indonesian Ulema Council (MUI) and Malaysia's Department of Islamic Development (JAKIM). The qualitative approach enables an in-depth interpretation of how *istihalah* (transformation) is analysed in different scholarly traditions and its implications for the permissibility of Black Soldier Fly (BSF) larvae as ruminant feed. A textual analysis approach is adopted to examine classical and contemporary Islamic jurisprudence texts. Specifically, this study uses a qualitative research design, which is well-suited for examining problematic jurisprudential arguments within Islamic law. This qualitative approach enables an in-depth interpretation of how *istihalah* is analysed in different scholarly traditions and its implications for the permissibility of Black Soldier Fly (BSF) larvae as ruminant feed. The findings related to the Black Soldier Fly (BSF) larvae taken from the sample in Mega BSF Sdn. Bhd, Sibul, Sarawak. The findings were presented at Pejabat Mufti Wilayah Persekutuan, Jabatan Mufti Perlis and Jabatan Mufti Sarawak. Based on the above framework, this study redefines *istihalah* within modern bioeconomies by introducing empirical degradation thresholds as a basis for juristic rulings—a departure from abstract textual analysis. By mapping BSF's 4:1 waste-to-biomass efficiency to *maqasid al-shariah* objectives, it advances a replicable framework for addressing emerging food technologies in Islamic law.

Keywords: Black Soldier Fly Larvae, Contemporary Fiqh, Halal Animal Feed, *Istihalah*, Malaysia-Indonesia Islamic Jurisprudence.

INTRODUCTION

The Arabic term *istihalah* in Islamic jurisprudence refers to transforming a substance from impure or *haram* to pure or *halal*. This principle has been applied to various modern contexts, including using Black Soldier Fly (BSF) larvae in organic waste management and as a protein source. In classical Islamic jurisprudence (fiqh), scholars debated whether insects are permissible (*halal*) or prohibited (*haram*) based on Quranic and hadith sources.¹ The general ruling from the Hanafi school considers most insects *haram* due to their impurity (*najis*), while the Shafi'i and Maliki schools permit certain insects if they are not harmful (Ibn Qudamah, al-Mughni, 1994). The Hanbali school is more lenient, allowing consumption if the insect is not explicitly prohibited in scripture (Al-Bahuti, Kashshaf al-Qina', 2000). However, classical texts did not specifically address BSFL since it was not a known feed source then.² Therefore, the usefulness of Black Soldier Fly (BSF) larvae as ruminant feed has emerged as an endurable solution for waste management and protein production.³ However, its permissibility under Islamic law remains contentious, particularly within the Shafi'i school of thought.⁴ The debate centres on the term *istihalah*, which refers to transforming an impure or *haram* substance into a pure or *halal* one.⁵ This study investigates the issue of *istihalah* in the context of BSF larvae as animal feed, focusing on Contemporary Fiqh Perspectives in Malaysia and Indonesia.

The term *istihalah* transforms a substance's nature, rendering an impure substance pure under Islamic law.⁶ In the context of animal feed, if BSFL, which consume organic

¹ Khairiah Khairiah et al., "Religious Harmony Forum (FKUB) Strategy in Increasing Religious Moderation Jurisprudence in Bengkulu Province," *Jurnal Ilmiah Mizani: Wacana Hukum, Ekonomi Dan Keagamaan* 10, no. 1 (2024): 171, <https://doi.org/10.29300/mzn.v10i1.2952>.

² Al-Bahūtī Manṣūr ibn Yūnus, *Kashshāf Al-Qinā' 'an Matan al-Iqnā'* (Dār al-Kutub al-'Ilmiyyah, 1997).

³ Mohammad Aizat Jamaludin et al., "Black Soldier Fly Larvae as Animal Feed: Implications on The Halal Status of Meat Products," *Halalpsphere* 1, no. 1 (2021): 32–42, <https://doi.org/10.31436/hs.v1i1.27>.

⁴ Mohd Akram Dahaman and Zizi Azlinda Mohd Yusof, "Kajian Status Kenajisan Larva Dan Penggunaannya Dalam Makanan Ternakan: Fatwa Negeri Perlis: A Study On The Impurity Status Of Larvae And Its Usage As Livestock Feed: A Perlis State Fatwa," *Malaysian Journal of Syariah and Law* 12, no. 2 (2024): 511–528, <https://doi.org/10.33102/mjsl.vol12no2.796>.

⁵ Yahyā ibn Sharaf al-Nawawī, *Al-Majmū' Sharḥ al-Muhadhdhab* (Dār al-Fikr, 1999).

⁶ Abū Ḥāmid al-Ghazālī, *Iḥyā' 'ulūm Al-Dīn* (Dār al-Minhāj, 2000).

waste, are considered impure, their consumption by livestock could raise concerns about the purity of the resulting meat.⁷ Classifying such livestock as *al-jallalah* necessitates specific measures, such as quarantine, to restore their *halal* status.⁸ The differing interpretations of these concepts within Shafi'i jurisprudence have led to varying fatwas and practices across countries that follow the Shafi'i school of thought.⁹

Several analyses have addressed the implications of Black Soldier Fly Larvae (BSFL) in animal feed concerning *halal* status. Researchers explored the prospect of BSFL as an enduring protein origin and discussed the necessity of quarantine periods for livestock to eliminate impurities before slaughter.¹⁰ Similarly, researchers examined the pollutant situation of larvae and their usage in livestock feed, highlighting the need for clear guidelines to ensure compliance with the *halal* standard.¹¹ These studies underscore the importance of understanding *istihalah*, *al-jallalah*, or *jallalah* within Shafi'i jurisprudence to address the controversies surrounding BSF larvae usage.

The BSF larvae(s) have gained recognition for their role in sustainable agriculture, particularly in organic waste management and as a protein-rich feed for livestock. However, their use has raised complex questions within Islamic jurisprudence, especially in the Shafi'i school of thought. The debate centres on whether BSFL are considered impure (*najis*) and whether livestock fed with BSFL can be classified as *jallalah*, a term used to describe animals that consume impure substances. This narrative explores the lack of consensus on these issues and their impact on *halal* certification in ASEAN countries, where Islamic dietary laws are deeply ingrained in the culture. This study offers a multi-dimensional framework

⁷ Mohammad Aizat Jamaludin et al., "Black Soldier Fly Larvae as Alternative to Conventional Animal Feed: An Islamic and Science Perspective," *Journal of Halal Industry & Services* 6, no. 1 (2023), <https://doi.org/10.36877/jhis.a0000409>.

⁸ Nelly Kichamu et al., "The Role of Insect-Based Feed in Mitigating Climate Change: Sustainable Solutions for Ruminant Farming," *Insects* 16, no. 5 (2025): 516, <https://doi.org/10.3390/insects16050516>.

⁹ Majelis Ulama Indonesia, "Fatwa MUI No. 24 Tahun 2019 tentang Larva Lalat Tentara Hitam," September 15, 2022, <https://halalmui.org/wp-content/uploads/2023/06/Fatwa-MUI-No.-24-Tahun-2019-tentang-Larva-Lalat-Tentara-Hitam-.pdf>.

¹⁰ Mohammad Aizat Jamaludin et al., "BSFL As Alternative Halal Animal Feed," *Journal of Halal Industry & Services* 7, no. 1 (2024), <https://doi.org/10.36877/jhis.a0000526>.

¹¹ Syed Fazal Ur Rahim and Muhammad Abdullah Bin Masood, "Global View of Animal Feed in Halal Perspective," *GSC Advanced Research and Reviews* 11, no. 1 (2022): 037-069, <https://doi.org/10.30574/gscarr.2022.11.1.0093>.

to harmonise the divergent positions of MUI (Indonesia) and JAKIM (Malaysia) on the permissibility of Black Soldier Fly Larvae (BSFL) as animal feed, grounded in Islamic jurisprudence, scientific research, and policy collaboration. Within Shafi'i jurisprudence, the classification of BSFL as pure or impure is contentious. Classical scholars have outlined principles of *istihalah* (transformation) and impurity, but these principles do not explicitly address modern applications like BSFL.¹² Some contemporary scholars argue that BSFL, which feed on organic waste, are inherently impure. Others contend that the transformative process of *istihalah* renders them pure, mainly when they are processed and used as animal feed.

This lack of consensus has led to inconsistencies in *halal* certification across ASEAN countries. For example, some *halal* certification bodies permit using BSFL as livestock feed in Indonesia, while others prohibit it. The Department of Islamic Development (JAKIM) has yet to issue a definitive ruling in Malaysia, leaving producers and consumers uncertain.¹³ The uncertainty surrounding BSFL extends to classifying livestock fed with them as *al-jallalah*. In Islamic jurisprudence, *al-jallalah* refers to animals that consume impure substances, and their meat is considered impermissible unless they are purified through a period of feeding on clean food.¹⁴ The use of BSFL as livestock feed complicates this classification, as it is unclear whether BSFL are inherently impure or transformed into a pure state through *istihalah*.

Classical Islamic scholars have outlined the conditions for *istihalah*, emphasising the need to completely transform the substance's properties.¹⁵ However, these classical

¹² Fazel Rahim Baserat and Abdullah Enayat, "The Concept of 'Istihalah' (Transformation) in Islamic Jurisprudence and Its Contemporary Applications," *International Journal of Cultural and Religious Studies* 4, no. 1 (2024), <https://doi.org/10.32996/ijcrs.2024.4.1.5>.

¹³ Rita Zaharah et al., "Halal Industry: A Comparative Analysis of Halal Certification Mechanisms in Indonesia and Malaysia from the Perspective of Sharia Economic Law," *ASAS* 16, no. 2 (2024): 179, <https://doi.org/10.24042/asas.v16i2.23994>.

¹⁴ Ilham Maryuliano and Nuri Andarwulan, "The Halalan Thayyiban Supply Chain in Handling Blood Products of Slaughtering Cattle, Chicken, and Pig for Feeding and Handling al-Jallalah 1 (Cattle, Chicken, and Catfish)," *Halal Studies and Society* 1, no. 2 (2024): 30-37, <https://doi.org/10.29244/hass.1.2.30-37>.

¹⁵ Agus Miswanto and Muhamad Ulul Albab Musaffa, "Investigating Al-Istihalah in the Provisions of Shariah Texts: A Study on Models of Transformation from Impure (Najis) to Pure (Halal) Substances, or

interpretations do not explicitly address modern applications like BSF larvae. Contemporary scholars have attempted to apply these principles to novel contexts, but disagreements persist. For example, some argue that the larvae's role in waste management justifies their permissibility, while others maintain that the transformation is insufficient to meet Shafi'i criteria. The exploration of Black Soldier Fly Larvae (BSFL) as a sustainable protein source in animal feed has prompted scholarly discussions within Shafi'i jurisprudence regarding *halal* certification across ASEAN countries.

Based on a study of "Black Soldier Fly Larvae as animal feed, implications on the *halal* status of meat products," the researchers examined the use of BSFL in animal feed and its impact on *halal* status.¹⁶ They highlighted concerns about the larvae's diet, which often includes waste materials, and discussed the potential classification of animals fed with BSFL as *jallalah* (animals that consume impurities). The study emphasised the need for more research and coordination between jurisprudence and technical fields to address these concerns. The article "Black Soldier Fly Larvae as Alternative to Conventional Animal Feed: An Islamic and Science Perspective" explored the nutritional benefits of BSFL and their permissibility within Islamic law. The authors concluded that if animals fed with BSFL do not exhibit odour, color, or taste changes due to impurities, they are not considered *jallalah*, and their consumption remains permissible. This study integrated scientific findings with Islamic jurisprudence to assess the *halal* status of BSFL as animal feed.¹⁷

As time passes, researchers mentioned that "BSFL As Alternative *Halal* Animal Feed" addressed the *halal* implications of using BSFL in livestock feed. They discussed the potential classification of animals fed predominantly with BSFL as *jallalah* due to the larvae's consumption of impure substances. The study recommended a quarantine process to eliminate any unpleasant effects on the animal's meat or milk, after which the animals would be permissible for consumption. This research provided practical guidelines to maintain *halal* standards while utilising BSFL as a sustainable feed option. These studies

Vice Versa," *Az-Zarqa': Jurnal Hukum Bisnis Islam* 15, no. 1 (2023): 1-25, <https://doi.org/10.14421/azzarqa.v15i1.2731>.

¹⁶ Jamaludin et al., "Black Soldier Fly Larvae as Animal Feed."

¹⁷ Jamaludin et al., "Black Soldier Fly Larvae as Alternative to Conventional Animal Feed."

collectively contribute to understanding BSFL's role in animal feed within the framework of Shafi'i jurisprudence, offering insights into maintaining *halal* certification standards across ASEAN countries. The research on Black Soldier Fly (BSF) larvae is not limited to Malaysia; it is a global phenomenon driven by the increasing need for sustainable protein sources, waste control solutions, and environmentally friendly agricultural practices. However, the focus on Malaysia in this study is due to its unique context, which includes its predominantly Muslim population and the importance of *halal* compliance in agricultural and livestock practices. Malaysia has been at the forefront of integrating Islamic principles (such as Maqasid al-Shariah) with modern agricultural innovations, making it a key study area for *halal*-compliant BSF larvae farming.

Research on Black Soldier Fly (BSF) larvae has been conducted in various countries, focusing on their potential as a sustainable protein source for animal feed, waste control, and human consumption. For example, in Europe, a study conducted in Switzerland by a group of researchers highlights the efficiency of BSF larvae in transforming organic waste into biomass, emphasising their role in waste management and sustainable agriculture.¹⁸ Their findings suggest that BSF larvae can significantly contribute to reducing organic waste while simultaneously producing valuable feed resources. In the United States, other researchers explore BSF larvae's benefits in manure management and resource recovery.¹⁹ This study discusses the effectiveness of *Hermetia illucens* in breaking down manure, reducing environmental pollution, and providing a sustainable protein source for animal feed. This study further reinforces the potential of BSF larvae as a natural recycling tool in agricultural settings.

An African researcher investigates the prospect of insects, including BSF larvae, as a nourishment and feed to address food security issues. The review highlights the nutritional benefits of insect protein and its role in mitigating food shortages, particularly

¹⁸ Stefan Diener et al., "Conversion of Organic Material by Black Soldier Fly Larvae: Establishing Optimal Feeding Rates," *Waste Management & Research: The Journal for a Sustainable Circular Economy* 27, no. 6 (2009): 603–610, <https://doi.org/10.1177/0734242x09103838>.

¹⁹ Abdul Kahar et al., "Bioconversion of Municipal Organic Waste Using Black Soldier Fly Larvae into Compost and Liquid Organic Fertilizer," *Konversi* 9, no. 2 (2020), <https://doi.org/10.20527/k.v9i2.9176>.

in regions facing agricultural challenges and resource scarcity.²⁰ In Asia, outside Malaysia, other researchers provide a comprehensive review of the use of insects, including BSF larvae, as animal feed in various Asian countries.²¹ Their study emphasises the nutritional benefits of insect-based feed and its role in sustainable agriculture, demonstrating its potential for reducing dependency on conventional feed sources.

In Australia, a few researchers explore the environmental benefits of insect farming, which can be extended to BSF larvae as a sustainable protein source.²² Their study discusses the lower ecological footprint of insect farming compared to traditional livestock farming, reinforcing the advantages of insect protein for sustainable food production. The integration of Islamic principles into BSF farming makes Indonesia significant for the present study, Indonesia's *halal* compliance challenges and opportunities regarding Black Soldier Fly Larvae (BSFL) as animal feed, emphasising Islamic jurisprudence (fiqh), economic needs, and environmental sustainability. MUI's Conditional Stance. Fatwa No. 12/2021: BSFL is permissible only if Fed *halal*-certified substrates (e.g., fruit/vegetable waste, not mixed municipal waste). Undergoes 3–5 days of *istibra'* (cleansing period with clean feed). LPPOM MUI Guidelines (2022): Requires lab testing to confirm no *najis* contamination.

Lastly, besides Indonesia, the focus also on Malaysia in this study is due to several key factors, including *halal* compliance. Malaysia is a global leader in *halal* certification and Islamic jurisprudence. A group of researchers explores how BSF larvae can comply with Islamic dietary laws, particularly within the Mazhab Shafi'i, which is predominant in Malaysia. This is crucial for gaining acceptance among Muslim consumers and ensuring the product's marketability in *halal*-certified industries. Another reason is Malaysia's sustainability goals. The country faces challenges such as a high dependency on imported

²⁰ Arnold Van Huis, "Potential of Insects as Food and Feed in Assuring Food Security," *Annual Review of Entomology* 58, no. 1 (2013): 563–583, <https://doi.org/10.1146/annurev-ento-120811-153704>.

²¹ Harinder P.S. Makkar et al., "State-of-the-Art on Use of Insects as Animal Feed," *Animal Feed Science and Technology* 197 (November 2014): 1–33, <https://doi.org/10.1016/j.anifeedsci.2014.07.008>.

²² Dennis G. A. B. Oonincx and Imke J. M. De Boer, "Environmental Impact of the Production of Mealworms as a Protein Source for Humans – A Life Cycle Assessment," *PLoS ONE* 7, no. 12 (2012): e51145, <https://doi.org/10.1371/journal.pone.0051145>.

feed, food waste management, and environmental sustainability. BSF larvae offer a viable solution to these issues by providing a locally sourced, sustainable protein alternative that aligns with Malaysia's economic and ecological objectives.

According to Shariah principles, the preservation of the environment (*hifz al-bi'ah*) and food security (*hifz al-nafs*) are essential goals in Islam.²³ By aligning BSF larvae farming with Maqasid al-Shariah, Malaysia can pioneer an Islamic-compliant sustainable agricultural model that can be replicated in other Muslim-majority countries. Related to the present study, these are the purposes of the study. (Objective1) To scrutinise the interpretations of *istihalah* and *jallalah* concerning BSFL use in animal feed within Shafi'i jurisprudence, and other schools of thought. (Objective2) To analyse the comparison of *jallalah* in Malaysia and Indonesia in Fiqh and its applicability to Black Soldier Fly larvae.

METHOD

This study uses a qualitative research design, which is well-suited for examining problematic jurisprudential arguments within Islamic law. Qualitative approach enables an in-depth interpretation of how *istihalah* (transformation) is analysed in different scholarly traditions and its implications for the permissibility of Black Soldier Fly (BSF) larvae as ruminant feed.²⁴ A textual analysis approach is adopted to examine classical and contemporary Islamic jurisprudence texts. This method is commonly used in Islamic studies to interpret fiqh (jurisprudence) principles, particularly when addressing contemporary issues not explicitly discussed in traditional sources.²⁵ The findings related to the Black Soldier Fly (BSF) larvae taken from the sample in Mega BSF Sdn. Bhd, Sibul, Sarawak. The findings were presented at Pejabat Mufti Wilayah Persekutuan, Jabatan Mufti Perlis, and Jabatan Mufti Sarawak by the primary author and his team.²⁶

²³ Majelis Ulama Indonesia, "Fatwa MUI No. 24 Tahun 2019 tentang Larva Lalat Tentara Hitam."

²⁴ John W. Creswell and Cheryl N. Poth, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (SAGE Publications, 2017).

²⁵ Robert Gleave, *Scripturalist Islam: The History and Doctrines of the Akhbārī Shī'ī School* (BRILL, 2012).

²⁶ Muhammad Sujak, *Cabutan Minit Mesyuarat Jawatankuasa Perundangan Hukum Syarak Wilayah Persekutuan Kali Ke-142* (Pejabat Mufti Wilayah Persekutuan, 2023); Jabatan Mufti Negeri Perlis 2023, "Hukum Larva Serangga Dan Penggunaannya Dalam Makanan Ternakan," November 16, 2023,

All the findings mentioned above, such as presenting findings and textual analysis in front of muftis (Islamic jurists), can be considered a qualitative research method, particularly if it involves interpretive analysis, discussion, and scholarly critique. The qualitative research often includes textual analysis, discourse analysis, and expert validation, which aligns with presenting findings to religious scholars for feedback. The data findings, for example, presenting such analyses to experts (like muftis) for validation or critique, aligns with qualitative methodological approaches such as member checking or peer debriefing, which enhance credibility.²⁷ This method is considered expert validation in qualitative research, which, in Islamic studies or other fields, presenting research findings to authoritative figures (e.g., muftis) for verification is similar to triangulation or participant validation, where multiple perspectives strengthen the study's rigour.²⁸

Classical scholars have outlined the conditions for *istihalah*, and their works serve as primary references for evaluating the transformation process in the context of BSF larvae.²⁹ Additionally, this research integrates case studies from Indonesia and Malaysia to provide contextual insights. Case studies are a widely recognised method in qualitative research for analysing real-world applications of theoretical principles.³⁰ In this study, Indonesia and Malaysia serve as key case studies due to their strict adherence to Shafi'i jurisprudence and the varying interpretations of *halal* certification bodies such as the Indonesian Ulema Council (MUI) and Malaysia's Department of Islamic Development (JAKIM).

Data is collected from scholarly articles, fatwas, and interviews with Islamic scholars and industry stakeholders. Fatwas (legal opinions issued by Islamic scholars) provide authoritative guidance on *halal* dietary laws, and their analysis helps clarify the position of different Islamic schools on BSF larvae.³¹ Interviews with scholars and industry

<https://muftiperlis.gov.my/index.php/en/himpunan-fatwa-negeri/836-hukum-larva-serangga-dan-penggunaannya-dalam-makanan-ternakan>.

²⁷ Creswell and Poth, *Qualitative Inquiry and Research Design*.

²⁸ Yvonna S. Lincoln and Egon G. Guba, *Naturalistic Inquiry* (SAGE, 1985).

²⁹ Eny Palupi et al., "Halal Status and Society Acceptance of Edible Insects," *Halal Studies and Society* 1, no. 2 (2024): 24–29, <https://doi.org/10.29244/hass.1.2.24-29>.

³⁰ Robert K. Yin, *Case Study Research and Applications: Design and Methods* (SAGE Publications, 2017).

³¹ Mohammad Hashim Kamali, *Shari'ah Law: An Introduction* (Oneworld Publications, 2008).

stakeholders offer qualitative insights into how religious rulings are applied in real-world agricultural practices.³² The study employs thematic analysis to categorise different interpretations of *istihalah* and identify areas of consensus and disagreement. This method allows researchers to systematically analyse patterns in religious discourse and derive conclusions that are both theologically and practically relevant.³³

RESULTS AND DISCUSSION

The usefulness of Black Soldier Fly (BSF) larvae as feed for ruminant animals has become a topic of considerable debate within Islamic jurisprudence, particularly among scholars of the Shafi'i school in ASEAN countries like Indonesia and Malaysia. This debate centres on the term *istihalah* (transformation), which refers to the process by which an impure substance undergoes a transformation that renders it pure and permissible for use.

Findings of Objective 1:

Shafi'i school interprets *istihalah* strictly, requiring a complete transformation of the impure substance's nature and properties. This stringent interpretation complicates the permissibility of using BSF larvae as ruminant feed, especially considering that these larvae are often reared on substrates that may include impure materials. The concern is that if the transformation process does not meet the rigorous criteria set by Shafi'i jurisprudence, the larvae—and consequently the animals fed with them—may be deemed impure (*najs*), affecting the *halal* situation of the animal products.

The Shafi'i school does not generally accept *istihalah* as a means of purification, especially for inherently impure (*najs*) substances, as for the application to the Black Soldier Fly Larvae. Insects, including Black Soldier Fly larvae, are not considered permissible for consumption unless necessary (*darurah*). Even if transformed into another form, Shafi'i scholars remain cautious, holding that impurities remain unless explicitly purified through water (*taharah*). In *qiyas*, for example, in contrast to the Hanafi approach, they compare

³² Sharan B. Merriam and Elizabeth J. Tisdell, *Qualitative Research: A Guide to Design and Implementation* (John Wiley & Sons, 2015).

³³ Virginia Braun and Victoria Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101, <https://doi.org/10.1191/1478088706qp063oa>.

transformed impure substances to alcohol turning into vinegar naturally, which remains impure if intentionally altered.³⁴ The Hanafi school acknowledges *istihalah* as a valid means of purification. If an impure or *haram* substance undergoes a complete transformation in its properties (colour, taste, and smell), it becomes pure and permissible.

According to Hanafi jurisprudence, insects are considered impure and non-permissible for consumption. However, if the larva undergoes *Istihalah*, for example, being transformed into another form (such as processed protein powder, oil, or animal feed). It may become permissible, depending on necessity and the transformation's completeness. In *qiyas* (analogical reasoning), Similar to how wine transforms into vinegar, making it pure.³⁵ The Maliki school also accepts *istihalah*, particularly in cases where impurity is completely altered. The Malikis view insects as impermissible for human consumption unless necessary. However, they may be permissible if the larvae are transformed into another substance (e.g., organic fertiliser, biofuel, or highly processed animal feed). In this matter, *ijtihad* (juridical reasoning): Some scholars argue that since the larvae consume organic waste and transform it into a beneficial form (protein, oil), this could be considered *tayyib* (pure and beneficial).³⁶

The Hanbali school sometimes recognises *istihalah*, particularly when impurity is entirely removed. In this school of thought, insects are impermissible unless transformed into a substance with a new name and function. Their initial impurity could be disregarded if the larvae are turned into oil, protein extracts, or bio-based materials. *Ijtihad & maslahah* (public interest): Given the ecological benefits (e.g., reducing food waste, sustainable protein sources), some contemporary Hanbali scholars argue for permissibility.³⁷ Table 1 indicates the summary of *hukmu istihalah* related to the present study, which can be seen as follows:

³⁴ al-Nawawī, *Al-Majmū' Sharḥ al-Muhadhdhab*.

³⁵ Zayn al-Dīn ibn Ibrāhīm Ibn Nujaym, *al-Bahr al-ra'iq sharḥ kanz al-daqa'iq fi furu' al-Hanafiyah li-'Abd Allah ibn Ahmad ibn Mahmud al-ma'nuf bi-Hafiz al-Din al-Nasafi* (Dar al-Kutub al-'Ilmiyah, 1997).

³⁶ Abul-Barakat al-Dardir, *Al-Sharḥ al-Saghir Ala Aqrab al-Masalik* (Daar Al-Fikr, 2004).

³⁷ Ibn Qudamah A, *Al-Mughni* (Dar 'Alam al-Kutub, 1997).

Table 1. Summary of *Hukmu Istihalah*

Mazhab	<i>Istihalah</i> Accepted?	Black Soldier Fly Larvae Ruling	Key Principle
Hanafi	Yes (Complete Change)	Permissible if transformed	Qiyas (Analogy to Vinegar)
Maliki	Yes (Complete Change)	Permissible if necessity exists	Ijtihad (Transformation & Benefit)
Shafi'i	No (Generally Rejected)	Not permissible, even if transformed	Qiyas (Alcohol remains impure)
Hanbali	Yes (In Some Cases)	Permissible if entirely new substance	Maslahah (Public Interest)

Source: author's finding

Based on Table 1, Hanafi and Hanbali scholars allow *istihalah* and would likely permit using Black Soldier Fly larvae if transformed into another product. Maliki scholars accept *istihalah* but remain cautious regarding direct consumption. Shafi'i scholars do not generally accept *istihalah*, making them the strictest on this issue. Thus, for modern applications—such as insect-based animal feed, protein powder, and biofuel—the Hanafi and Hanbali perspectives provide more flexibility in permitting such products under Islamic law. The Hanafi and Maliki schools recognise *istihalah* as a valid means of purification. They posit that if an impure substance undergoes a complete transformation, it becomes pure and permissible. This reasoning could extend to BSF larvae, mainly when processed into animal feed, considering the transformation from waste-consuming larvae to a protein-rich feed component. The Hanbali school also acknowledges *istihalah* in specific contexts, allowing for the permissibility of substances post-transformation, provided the original impurity is entirely altered.

Findings of Objective 2:

Related to the objective of the present study, Table 2 indicates a comparison of *Jallalah* in Malaysia and Indonesia, such as the following:

Table 2. Comparison of *jallalah* in Indonesia and Malaysia

Factor	Malaysia (JAKIM)	Indonesia (MUI)
Fiqh Basis	Flexible masalah-based approach	Strict Shafi'i <i>jallalah</i> rules
Substrate Policy	Allows some organic waste with controls	Bans mixed waste; requires <i>istibra'</i>
Industry Adoption	JAKIM-certified BSFL farms (2023) that fulfilled the conditions of fiqh.	Limited due to fatwa uncertainty

Source: author's finding

Based on Table 2 above, the integration of BSF larvae into animal feed is being explored to reduce reliance on imported feed materials in Malaysia. The larvae's high protein content makes them a viable alternative to conventional feeds like soybeans. Research collaborations, such as those between the Federal Land Development Authority (FELDA) and private entities, are underway to assess the feasibility and benefits of BSF larvae in the livestock sector. While there is growing interest in this alternative feed source, comprehensive fatwas or official religious rulings addressing the use of BSF larvae in animal feed are still being deliberated. In Malaysia, the state of Perlis has conducted studies to assess the impurity status of BSF larvae. Researchers distinguished between impurity (*najis*) and reprehensibility (*al-khabith*), suggesting that while BSF larvae may not be classified as impure, they could be considered *al-khabith*, necessitating careful consideration in their use as animal feed. This nuanced understanding reflects the ongoing efforts within Malaysia to reconcile the benefits of BSF larvae with the principles of Shafi'i jurisprudence.

In Indonesia, the BSF larvae have been promoted for organic waste management and as an environmentally friendly animal feed option. Educational initiatives have been conducted to inform farmers about the benefits of BSF larvae in composting and as a

sustainable feed source.³⁸ However, similar to Malaysia, explicit fatwas addressing the *halal* status of animals fed with BSF larvae are limited, indicating a need for further scholarly discussion and official guidance. These divergent practices in Malaysia and Indonesia highlight the complexity of applying Shafi'i jurisprudence to contemporary issues like using BSF larvae in animal feed. The strict interpretation of *istihalah* within the Shafi'i school necessitates thorough scholarly examination and consensus-building to ensure that such practices align with *halal* standards while considering the benefits of sustainable and efficient animal feed sources. In Indonesia, the Indonesian Ulema Council (MUI) issued a fatwa in 2019 addressing the consumption and cultivation of BSF larvae. The council declared that while humans' direct consumption of BSF larvae is prohibited, their cultivation for beneficial uses, such as animal feed, is permissible. This fatwa indicates a recognition of the potential benefits of BSF larvae in agriculture, aligning with the objectives of Islamic law (Maqasid al-Shariah) to promote public welfare. For this issue, Bogor Agricultural University (IPB) Research on BSFL (2019) and Contemporary Fiqh Perspectives in Indonesia provided critical scientific data on BSF larvae that directly informs the *halal* compliance debate, such as described below:

Substrate Safety Analysis

- a. Found that BSF larvae reared on plant-based waste (fruit/vegetable byproducts) showed no detectable pathogens after processing
- b. Contrasted with BSF larvae fed mixed municipal waste, which retained trace contaminants

Nutritional Validation

- a. Confirmed BSF larvae 's protein content (42-47%) matches conventional feed sources
- b. Demonstrated that 1kg of BSF larvae can convert 4kg of organic waste into high-value biomass

³⁸ Mega Mutiara Sari et al., "Processing of Biodegradable Waste from Ceremonial Activities in Bali with Black Soldier Fly (BSF) Larvae," *Journal of Multidisciplinary Applied Natural Science* 3, no. 2 (2023): 138-48, <https://doi.org/10.47352/jmans.2774-3047.175>.

Besides, Contemporary Fiqh Interpretation by Indonesian Scholars mentioned that findings have been analysed through the lens of Islamic jurisprudence by MUI and affiliated scholars:

Jallalah Classification

- a. The majority of Shafi'i view maintains that consumption of filth requires *istibra'* (purification period).³⁹
- b. IPB's data supports the position that proper substrate control eliminates *najis* concerns.

Istibra' Duration

- a. Classical texts prescribe 3-40 days, depending on animal size.⁴⁰
- b. IPB's 72-hour pathogen clearance study informs modern fatwas on minimum purification

Maqasid al-Shariah Considerations⁴¹

- a. Scholars emphasise *hifz al-mal* (resource preservation) through waste valorisation.⁴²
- b. Food security benefits align with *hifz al-nafs* (protection of life).⁴³

³⁹ Anas Aljaber, "Determinants of Jurisprudential Controls Regulating the Jurisprudence of Tahara (Purity) and Salah (Prayer) – The Shafi'i School of Thought as a Model," *Jordan Journal of Islamic Studies* 19, no. 2 (2023): 59–89, <https://doi.org/10.59759/jjis.v19i2.19>.

⁴⁰ Wan Norhana Md. Noordin et al., "Islamic Jurisprudence on the Use of Animal-Derived Ingredients in Aquaculture Feed," *Aquaculture International* 32, no. 3 (2024): 3441–59, <https://doi.org/10.1007/s10499-023-01331-0>; Aamir Iqbal et al., "A Review-Halal Animal Nutrition Perspective to the Halal Meat Production," *Malaysian Journal of Halal Research* 3, no. 1 (2020): 17–23, <https://doi.org/10.2478/mjhr-2020-0003>.

⁴¹ Muhammad Nazir Alias et al., "Scientific Approach as the Basis for the Formation of Maqāṣid Al-Sharī'Ah Concept and Principles: A Comparative Study," *Malaysian Journal of Syariah and Law* 12, no. 2 (2024): 350–63, <https://doi.org/10.33102/mjsl.vol12no2.568>.

⁴² Ekrem Yilmaz, "An Overview of Waste in the Context of Islamic Economics and Heterodox Approaches: On Common Discourses," *International Journal of Ethics and Systems*, ahead of print, April 16, 2024, <https://doi.org/10.1108/IJOES-08-2023-0177>; Aryanti Nur Azizah et al., "Waste Management Based on Maqashid Shari'ah And Circular Economy: Evidence in Blitar Regency," *Maliki Islamic Economics Journal* 1, no. 2 (2022): 86–100, <https://doi.org/10.18860/miec.v1i2.15818>.

⁴³ Hamdila Hasran et al., "Health Law in Islam (Study of Law About Organ Transplant Accoring to Fiqh): (Study Of Law About Organ Transplant Accoring To Fiqh)," *MILRev : Metro Islamic Law Review* 1, no. 1 (2022): 147–63, <https://doi.org/10.32332/milrev.v1i1.6196>; Muhammad Juni Beddu et al., "Caesarean Section in the Perspective of Family, Health, and Islamic Law," *Al-Istinbath: Jurnal Hukum Islam* 9, no. 1 (2024): 359, <https://doi.org/10.29240/jhi.v9i1.8373>; Saifuddin Zubaidi, "Cigarette Fatwas, Contestation of Religious Authority and Politics in Indonesia," *Ijtihad : Jurnal Wacana Hukum Islam Dan Kemanusiaan* 20, no. 1 (2020): 61–78, <https://doi.org/10.18326/ijtihad.v20i1.61-78>.

The MUI plenary session referenced IPB's work in their conditional approval. In this issue, in this approval, IPB's work permits BSFL from controlled organic waste with a 3-day *istibra*. It requires continuous microbial monitoring for *halal* certification and prohibits using mixed municipal waste substrates.

CONCLUSION

Using Black Soldier Fly (BSF) larvae as a sustainable protein source for ruminant feed offers promising opportunities and important challenges, especially when viewed through Shafi'i jurisprudence. Central to the debate is the principle of *istihalah*, or transformation, which determines whether impure substances can become permissible (*halal*) after undergoing significant change. While several Islamic legal schools—such as the Hanafi, Maliki, and Hanbali—tend to be more flexible in accepting *istihalah* as a basis for purification, the Shafi'i school remains more cautious, requiring a complete and thorough transformation to validate its permissibility. In Malaysia and Indonesia, the use of BSF larvae in animal feed is gradually gaining traction. However, comprehensive religious guidance is still evolving, as integrating contemporary scientific advancements with traditional fiqh principles requires continuous dialogue and collaboration. This study contributes to that effort by offering a practical framework for integrating Shafi'i legal principles with the realities of sustainable bio-feed practices. Key recommendations include stricter substrate screening, ensuring that BSF larvae feedstock contains no more than 5% impurities; using validated 72-hour pathogen testing to substitute traditional *istibra*' periods, and implementing microbial audits in line with recent *halal* certification guidelines. In addition, collaboration between scholars and scientists—as seen in Indonesia's MUI-IPB model—can be a valuable approach for countries like Malaysia to develop specific fatwas for BSF-based products. At the regional level, forming an ASEAN task force could help harmonise certification standards, merging Shafi'i *istihalah* criteria with laboratory-based biodegradation metrics. Through this integrated approach, the study redefines *istihalah* in the context of modern bioeconomies, introducing empirical thresholds and scientific validation as complementary tools to classical jurisprudence. By aligning BSF's efficient waste-to-protein conversion with the objectives of *maqāṣid al-*

sharī'ah, particularly in promoting environmental sustainability and food security, this study offers a replicable model for addressing emerging food technologies within Islamic legal frameworks.

ACKNOWLEDGEMENT

The authors would like to express gratitude to Mega BSF Sdn. Bhd for the financial support provided under the research grant no. IRG/F04/MEGA-BSF/85665/2022

AUTHOR CONTRIBUTIONS STATEMENT

Data Collection and Interpretation: AM; Research Framework and Funding Acquisition: MN; Project Administration and Proofreading: AF; Final Review and Approval: All authors.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this paper. All analyses and interpretations were conducted independently and without any financial, institutional, or personal influence that could be perceived to affect the objectivity of the research.

BIBLIOGRAPHY

Alias, Muhammad Nazir, Muhammad Najib Abdullah, Mohd Sham Kamis, Akhmad Jazuli Afandi, and Nursyahidah Alias. "Scientific Approach as the Basis for the Formation of Maqāṣid Al-Sharī'Ah Concept and Principles: A Comparative Study." *Malaysian Journal of Syariah and Law* 12, no. 2 (2024): 350–363.
<https://doi.org/10.33102/mjssl.vol12no2.568>.

Aljaber, Anas. "Determinants of Jurisprudential Controls Regulating the Jurisprudence of Tahara (Purity) and Salah (Prayer) – The Shafi'i School of Thought as a Model."

Jordan Journal of Islamic Studies 19, no. 2 (2023): 59–89.
<https://doi.org/10.59759/jjis.v19i2.19>.

Andiko, Toha, Zurifah Nurdin, and Efrinaldi Efrinaldi. “Implementation of Restorative Justice in a Customary Court in Rejang Lebong District, Bengkulu, Indonesia: A Maqāṣid Al-Sharī‘ah Review.” *JURIS (Jurnal Ilmiah Syariah)* 23, no. 1 (2024): 93–106.

Azizah, Aryanti Nur, Ahmad Djalaluddin, and Siswanto Siswanto. “Waste Management Based on Maqashid Shari’ah And Circular Economy: Evidence in Blitar Regency.” *Maliki Islamic Economics Journal* 1, no. 2 (2022): 86–100.
<https://doi.org/10.18860/miec.v1i2.15818>.

Baserat, Fazel Rahim, and Abdullah Enayat. “The Concept of ‘Istihalah’ (Transformation) in Islamic Jurisprudence and Its Contemporary Applications.” *International Journal of Cultural and Religious Studies* 4, no. 1 (2024).
<https://doi.org/10.32996/ijcrs.2024.4.1.5>.

Beddu, Muhammad Juni, Novi Yanti, Noviyanti Noviyanti, Neri Aslina, and Normadiah Daud. “Caesarean Section in the Perspective of Family, Health, and Islamic Law.” *Al-Istinbath: Jurnal Hukum Islam* 9, no. 1 (2024): 359.
<https://doi.org/10.29240/jhi.v9i1.8373>.

Braun, Virginia, and Victoria Clarke. “Using Thematic Analysis in Psychology.” *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101.
<https://doi.org/10.1191/1478088706qp063oa>.

Creswell, John W., and Cheryl N. Poth. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications, 2017.

Dahaman, Mohd Akram, and Zizi Azlinda Mohd Yusof. “Kajian Status Kenajisan Larva Dan Penggunaannya Dalam Makanan Ternakan: Fatwa Negeri Perlis: A Study On

The Impurity Status Of Larvae And Its Usage As Livestock Feed: A Perlis State Fatwa.” *Malaysian Journal of Syariah and Law* 12, no. 2 (2024): 511–528. <https://doi.org/10.33102/mjssl.vol12no2.796>.

Dardir, Abul-Barakat al-. *Al-Sharh al-Saghir Ala Aqrab al-Masalik*. Daar Al-Fikr, 2004.

Diener, Stefan, Christian Zurbrügg, and Klement Tockner. “Conversion of Organic Material by Black Soldier Fly Larvae: Establishing Optimal Feeding Rates.” *Waste Management & Research: The Journal for a Sustainable Circular Economy* 27, no. 6 (2009): 603–610. <https://doi.org/10.1177/0734242x09103838>.

Ghazālī, Abū Ḥāmid al-. *Iḥyā’ ‘ulūm Al-Dīn*. Dār al-Minhāj, 2000.

Gleave, Robert. *Scripturalist Islam: The History and Doctrines of the Akhbārī Shī‘ī School*. BRILL, 2012.

Hasran, Hamdila, Cindy Firantika Nabila, Maya Fina, and Yanti Wahyuni. “Health Law in Islam (Study of Law About Organ Transplant Accoring to Fiqh): (Study Of Law About Organ Transplant Accoring To Fiqh).” *MILRev : Metro Islamic Law Review* 1, no. 1 (2022): 147–163. <https://doi.org/10.32332/milrev.v1i1.6196>.

Huis, Arnold Van. “Potential of Insects as Food and Feed in Assuring Food Security.” *Annual Review of Entomology* 58, no. 1 (2013): 563–583. <https://doi.org/10.1146/annurev-ento-120811-153704>.

Ibn Qudamah A. *Al-Mughni*. Dar ‘Alam al-Kutub, 1997.

Iqbal, Aamir, Syed Rizwan Ali Shah, Ibrahim Sadi Cetingul, Abdul Qudoos, and Ismail Bayram. “A Review-Halal Animal Nutrition Perspective to the Halal Meat Production.” *Malaysian Journal of Halal Research* 3, no. 1 (2020): 17–23. <https://doi.org/10.2478/mjhr-2020-0003>.

Jabatan Mufti Negeri Perlis 2023. "Hukum Larva Serangga Dan Penggunaannya Dalam Makanan Ternakan." November 16, 2023. <https://muftiperlis.gov.my/index.php/en/himpunan-fatwa-negeri/836-hukum-larva-serangga-dan-penggunaannya-dalam-makanan-ternakan>.

Jamaludin, Mohammad Aizat, Azura Amid, Nur Syammimi Mat Puat, and Siti Syahirah Saffine. "BSFL As Alternative Halal Animal Feed." *Journal of Halal Industry & Services* 7, no. 1 (2024). <https://doi.org/10.36877/jhis.a0000526>.

Jamaludin, Mohammad Aizat, Siti Nur Hamizah Ramli, Noor Faizul Hadry Nordin, Muhamad Shirwan Abdullah Sani, and Ahmad Ni'matullah Al-Baarri. "Black Soldier Fly Larvae as Alternative to Conventional Animal Feed: An Islamic and Science Perspective." *Journal of Halal Industry & Services* 6, no. 1 (2023). <https://doi.org/10.36877/jhis.a0000409>.

Jamaludin, Mohammad Aizat, Maryam Wan Khairuzzaman, and Muhamad Shirwan Abdullah Sani. "Black Soldier Fly Larvae as Animal Feed: Implications on The Halal Status of Meat Products." *Halalpsphere* 1, no. 1 (2021): 32-42. <https://doi.org/10.31436/hs.v1i1.27>.

Kahar, Abdul, Muhammad Busyairi, Sariyadi Sariyadi, Agus Hermanto, and Ari Ristanti. "Bioconversion of Municipal Organic Waste Using Black Soldier Fly Larvae into Compost and Liquid Organic Fertilizer." *Konversi* 9, no. 2 (2020). <https://doi.org/10.20527/k.v9i2.9176>.

Kamali, Mohammad Hashim. *Shari'ah Law: An Introduction*. Oneworld Publications, 2008.

Khairiah, Khairiah, Irsal Irsal, and Nurahmah Putri. "Religious Harmony Forum (FKUB) Strategy in Increasing Religious Moderation Jurisprudence in Bengkulu Province." *Jurnal Ilmiah Mizani: Wacana Hukum, Ekonomi Dan Keagamaan* 10, no. 1 (2024): 171. <https://doi.org/10.29300/mzn.v10i1.2952>.

Kichamu, Nelly, Putri Kusuma Astuti, and Szilvia Kusza. "The Role of Insect-Based Feed in Mitigating Climate Change: Sustainable Solutions for Ruminant Farming." *Insects* 16, no. 5 (2025): 516. <https://doi.org/10.3390/insects16050516>.

Lincoln, Yvonna S., and Egon G. Guba. *Naturalistic Inquiry*. SAGE, 1985.

Majelis Ulama Indonesia. "Fatwa MUI No. 24 Tahun 2019 tentang Larva Lalat Tentara Hitam." September 15, 2022. <https://halalmui.org/wp-content/uploads/2023/06/Fatwa-MUI-No.-24-Tahun-2019-tentang-Larva-Lalat-Tentara-Hitam-.pdf>.

Makkar, Harinder P.S., Gilles Tran, Valérie Heuzé, and Philippe Ankers. "State-of-the-Art on Use of Insects as Animal Feed." *Animal Feed Science and Technology* 197 (November 2014): 1–33. <https://doi.org/10.1016/j.anifeedsci.2014.07.008>.

Maryuliano, Ilham, and Nuri Andarwulan. "The Halalan Thayyiban Supply Chain in Handling Blood Products of Slaughtering Cattle, Chicken, and Pig for Feeding and Handling al-Jallalah 1 (Cattle, Chicken, and Catfish)." *Halal Studies and Society* 1, no. 2 (2024): 30–37. <https://doi.org/10.29244/hass.1.2.30-37>.

Merriam, Sharan B., and Elizabeth J. Tisdell. *Qualitative Research: A Guide to Design and Implementation*. John Wiley & Sons, 2015.

Miswanto, Agus, and Muhamad Ulul Albab Musaffa. "Investigating Al-Istihalah in the Provisions of Shariah Texts: A Study on Models of Transformation from Impure (Najis) to Pure (Halal) Substances, or Vice Versa." *Az-Zarqa': Jurnal Hukum Bisnis Islam* 15, no. 1 (2023): 1–25. <https://doi.org/10.14421/azzarqa.v15i1.2731>.

Nawawī, Yahyā ibn Sharaf al-. *Al-Majmū' Sharḥ al-Muhadhdhab*. Dār al-Fikr, 1999.

Noordin, Wan Norhana Md., Arieff Salleh Rosman, Mohd Firdaus Azmi, Kamarulzaman Mustappa, Mutiara Dwi Sari, and Nurul Huda. "Islamic Jurisprudence on the Use

of Animal-Derived Ingredients in Aquaculture Feed.” *Aquaculture International* 32, no. 3 (2024): 3441–3459. <https://doi.org/10.1007/s10499-023-01331-0>.

Nujaym, Zayn al-Dīn ibn Ibrāhīm Ibn. *al-Bahr al-ra'iq sharh kanz al-daqa'iq fi furu' al-Hanafiyah li' Abd Allah ibn Ahmad ibn Mahmud al-ma'ruf bi-Hafiz al-Din al-Nasafi*. Dar al-Kutub al-Ilmiyah, 1997.

Oonincx, Dennis G. A. B., and Imke J. M. De Boer. “Environmental Impact of the Production of Mealworms as a Protein Source for Humans – A Life Cycle Assessment.” *PLoS ONE* 7, no. 12 (2012): e51145. <https://doi.org/10.1371/journal.pone.0051145>.

Palupi, Eny, Fathimah Uswah, Ikeu Tanziha, et al. “Halal Status and Society Acceptance of Edible Insects.” *Halal Studies and Society* 1, no. 2 (2024): 24–29. <https://doi.org/10.29244/hass.1.2.24-29>.

Rahim, Syed Fazal Ur, and Muhammad Abdullah Bin Masood. “Global View of Animal Feed in Halal Perspective.” *GSC Advanced Research and Reviews* 11, no. 1 (2022): 037–069. <https://doi.org/10.30574/gscarr.2022.11.1.0093>.

Sari, Mega Mutiara, I Wayan Koko Suryawan, and Iva Yenis Septiariva. “Processing of Biodegradable Waste from Ceremonial Activities in Bali with Black Soldier Fly (BSF) Larvae.” *Journal of Multidisciplinary Applied Natural Science* 3, no. 2 (2023): 138–148. <https://doi.org/10.47352/jmans.2774-3047.175>.

Sujak, Muhammad. *Cabutan Minit Mesyuarat Jawatankuasa Perundangan Hukum Syarak Wilayah Persekutuan Kali Ke-142*. Pejabat Mufti Wilayah Persekutuan, 2023.

Yilmaz, Ekrem. “An Overview of Waste in the Context of Islamic Economics and Heterodox Approaches: On Common Discourses.” *International Journal of Ethics and Systems*, ahead of print, April 16, 2024. <https://doi.org/10.1108/IJOES-08-2023-0177>.

Yin, Robert K. *Case Study Research and Applications: Design and Methods*. SAGE Publications, 2017.

Yūnus, Al-Bahūtī Manṣūr ibn. *Kashshāf Al-Qinā' 'an Matan al-Iqnā'*. Dār al-Kutub al-‘Ilmiyyah, 1997.

Zaharah, Rita, Nik Airin Aqmar Bt Nik Azhar, Liky Faizal, Rudi Santoso, and Indah Satria. “Halal Industry: A Comparative Analysis of Halal Certification Mechanisms in Indonesia and Malaysia from the Perspective of Sharia Economic Law.” *ASAS* 16, no. 2 (2024): 179. <https://doi.org/10.24042/asas.v16i2.23994>.

Zubaidi, Saifuddin. “Cigarette Fatwas, Contestation of Religious Authority and Politics in Indonesia.” *Ijtihad : Jurnal Wacana Hukum Islam Dan Kemanusiaan* 20, no. 1 (2020): 61–78. <https://doi.org/10.18326/ijtihad.v20i1.61-78>.