

KEY FATWAS ISSUED (2022 – 2025)

1. Fatwa on Cultivated Meat

The issue of cultivated meat has gained prominence as food technology advances—raising questions about its permissibility in the Islamic law. Following inquiries from MUIS' Halal Development Unit and the Singapore Food Agency (SFA), this fatwa seeks to establish a comprehensive-clear guidance on cultivated meat's halal status for consumption.

Cultivated meat, also known as cultured or lab-grown meat, is a revolutionary approach to protein (i.e., meat) production—it is produced outside an animal's body using advanced culturing techniques involving tissue cultures or stem cells derived from animals. The production process involves obtaining cells from animals, storing them in nutrient-rich environments called bioreactors, and allowing them to multiply over until they develop into muscle tissue over several weeks. This technology offers an alternative to traditional meat with similar texture, taste, and nutritional composition to conventional meat whilst addressing growing global food security challenges.

In the context of dietary practices, the Shariah fundamentally established the principle that all food is permissible unless explicitly prohibited by the Qur'an and Sunnah. The Shariah emphasises on ethical foundations of mercy (*rahmah*), kindness (*ihsan*) towards animal welfare and environmental preservation are taken into account in deliberating new food technologies.

Two primary principles guided the Fatwa Committee's decision-making process. First, the objectives of Islamic law (*Maqāṣid al-Sharī'ah*) support cultivated meat production due to its significant environmental benefits. This includes reduced greenhouse gas emissions and more efficient use of land, water, and energy resources. Scientific studies demonstrate that a small number of cells can produce millions of meat patties compared to conventional farming, which is in line with both (i) the principle of stewardship (*maqṣid al-istikhlāf*) and (ii) environmental preservation (*ḥifẓ al-bī'ah*). Second, the legal maxim states that "*the default ruling on beneficial things is permissibility*" applies to this food technology considering its potential benefits for humanity and environmental sustainability.

Furthering the overarching principles, the Committee established specific conditions that must be met to ensure cultivated meat's permissibility. The first condition requires that cell sources must be obtained from animals that are halal for Muslim consumption according to the Shariah. Regarding extraction methods, whilst there are views requiring cells to be taken from slaughtered animals, the Committee recognised exceptions such

as milk, eggs, and musk, and can be applied to the extraction of stem cells, grounding in the principle that *general rules are subject to specific exceptions*.

The second condition necessitates that all ingredients used in the production process must be halal, including growth mediums and food additives. The Fatwa Committee noted that current development production has moved away from substances like fetal bovine serum (FBS), towards plant-based or serum-free alternatives, addressing earlier concerns about non-halal components.

The Fatwa Committee decided that cultivated meat is permissible for consumption provided the above guidelines are followed: (i) cell sources must be extracted from halal animals that have been slaughtered according to Islamic law, (ii) all growth mediums and ingredients must be free from non-halal substances, and (iii) no cross-contamination with other meat products or non-halal ingredients. These guidelines ensure compliance with halal dietary requirements whilst embracing beneficial technological developments that serve contemporary needs and contribute to human wellbeing and environmental sustainability.

Correspondingly, the Fatwa Committee continues to monitor contemporary needs, challenges and developments in novel food production methods.

For more information, the Office of Mufti has developed a booklet for further reading [here](#).

2. Fatwa on Alternative Proteins

Alternative proteins represent a significant advancement in food technology, offering potential solutions to global food security challenges whilst contributing to environmental sustainability. Plant-based alternatives are designed to replicate the texture, taste, and appearance of conventional meat, whilst insect-based proteins offer high nutritional value that may exceed that of traditional animal proteins. Nonetheless, insect-based alternatives require comprehensive processing to ensure safety and eliminate potential hazards.

The Fatwa Committee recognised that alternative protein production addresses a genuine necessity (*al-ḥājah*) in contemporary society. Whilst it has not yet reached a state dire need (*ḍarūrah*), they are a viable future protein sources that can complement traditional options. To a higher degree, the production of alternative proteins aligns with Islamic objectives (*maqāṣid al-sharī'ah*) by orienting towards the preservation of life (*ḥifẓ al-nafs*), environment, and human wellbeing.



Regarding plant-based alternatives, the Shariah establishes that all plants are generally halal for consumption except those that are harmful to humans. On this ground, plant-based alternative proteins are **permissible** provided they (i) contain no harmful substances and (ii) comply with halal requirements throughout the production process.

For insect-based proteins, the Fatwa Committee addressed concerns about certain insects as unclean in the Shafi'i school. However, modern processing technology ensures that the final products are clean and safe, with some insects being permissible for consumption in Islam. The Committee distinguished the ruling between coprophagous insects (those that consume excrement or other organic waste) and *jalālah* (farm animals that consume excrement)—viewing that (i) insects consume much smaller quantities and (ii) undergo extensive processing that transforms them into powder form.

The Fatwa Committee decided that alternative proteins sourced from insects or produced by coprophagous insects are halal for consumption. The processing methods used constitute a form of *istiḥālah*, whereby the original composition and properties of substances are chemically transformed into entirely different materials. This principle allows for the consumption of the final products provided they contain no harmful elements and meet safety standards.

The Committee emphasised that rulings on food products must be based on prevailing research findings, with provisions for review should new developments emerge regarding potential health risks or side effects.

For more information, the Office of Mufti has developed a booklet for further reading [here](#).

3. Fatwa on Carrier Screening for Severe Genetic Diseases

The Fatwa Committee of the Islamic Religious Council of Singapore has issued a fatwa on carrier screening for severe genetic diseases, following an inquiry from SingHealth Duke-NUS regarding a screening programme launched by KK Women's and Children's Hospital in 2024.

The fatwa seeks to provide guidance on the permissibility of undergoing carrier screening for severe genetic diseases and address concerns about whether such screening contradicts the Islamic beliefs.

Carrier screening represents a significant medical advancement that allows couples to identify whether they carry genes associated with severe diseases before conception.



When both partners carry the same faulty gene, there is a substantial risk of transmitting serious genetic conditions to their children, including neurological and muscular disorders, that can severely impact quality of life.

Fundamentally, Islam supports the advancement of knowledge and approaches to life that elevate human wellbeing and enable people to fulfil their responsibilities as Allah's stewards on earth. The Shariah does not oppose beneficial technologies that have been proven to mitigate harm, viewing such developments as forms of human endeavour (*sa'yu*) and taking necessary measures, with the understanding that all outcomes ultimately rest with Allah.

Foremost amongst these principles is that the Shariah calls for eliminating harm (*ḍarar*). This principle, "*any harm must be eliminated*" applies equally to anticipated harm based on sound-scientific knowledge as it does to existing harm. The Committee recognised that severe genetic diseases constitute a form of harm that must be avoided according to Islamic principles—preventing the spread of genetic diseases to future generations and alleviating the emotional and financial burdens on families.

Of equal importance is the ethical considerations, undergoing carrier screening does not contradict divine decree nor weaken a Muslim's faith in Allah's absolute control. Rather, it represents taking precautionary measures to prevent harm, like how Sayyiduna Umar withdrew from entering plague-affected areas, explaining that this was moving "*from one decree of Allah to another decree of Allah*." Such efforts align with the Islamic teaching to take necessary steps (*al-akhdh bi al-asbāb*) whilst believing that all results occur by God's will.

The Fatwa Committee ruled that undergoing carrier screening for serious diseases is permissible in the Shariah, as it prevents the transmission of severe genetic diseases, improves family wellbeing, and provides couples with crucial information to make informed reproductive decisions consistent with Islamic teachings. Muslim couples must make subsequent steps that align with the Islamic principles and laws.

For more information, the Fatwa can be read [here](#).