

IFFO IN FOCUS Webinar Apr 2022 Q & A

1. **What is the difference in the VBN value during fishmeal production under two processes of stick water recovery and non-recovery? Why is the VBN value of fishmeal much higher for process of stick water recovery?**

There are differences. We have no specific data. The VBN value is lower under the process of stick water non-recovery. Besides, it is also related to drying temperature and time.

2. **Why will higher glycine content in fishmeal cause a problem?**

Higher glycine content will not cause a nutrition problem, but glycine/17 amino acids $\geq 8.0\%$ can be used as a standard to determine the by-product fishmeal (9.0% for white fishmeal).

3. **What are the major indicators for imported fishmeal and domestic fishmeal?**

The newly revised standard does not differentiate imported fishmeal and domestic fishmeal. There are the same requirements for all fishmeal in the Chinese market. Please refer to the standard text for the detailed requirements.

4. **When will the new standard take effect? Whether is it compulsory for fishmeal manufactures?**

The new standard will take effect on May 1, 2022.

The new standard is a recommended national standard ("GB/T"). When fishmeal manufactures traders or fishmeal buyers agree to adopt the new standard in the contract, it is binding.

IFFO comments: This fishmeal standard is the compulsory reference while applying for MARA import license.

5. **Some fishmeal manufacturers will add some substances or use an extraction method to lower the VBN value. In fact, this misleads the judgment of fishmeal freshness. How to judge the quality of fishmeal under this circumstance?**

In addition to VBN, fishmeal freshness and safety indicators also include histamine and malondialdehyde.

6. **Why does TVBN decrease so much when the drying temperature is 130°C?**

TVBN is the total volatile base nitrogen under alkaline conditions, and a certain amount of nitrogen evaporates at 130°C. Thus, the content of TVBN decreases. But, histamine and malondialdehyde contents will increase.

7. **Grade III is marked on labels of *Feed ingredient Fishmeal Peruvian steam dried fishmeal (Grade III)*. What are the differences from special grade, Grade I, Grade II and Grade III mentioned in the speech?**

The quality grading of fishmeal in the Chinese market is based on the revised standard.

8. **After the new fishmeal standard is executed, shall the label show all the indicators required by the standard?**

The requirements on the label are compulsory, and the label indicates that the content is implemented according to the Feed Label Standard and the Feed Ingredients Catalogue. The revised fishmeal standard is a recommended standard.

IFFO comments: There is no update on the relevant Chinese regulations and standards of Chinese label.

9. Is there any relevant requirement for in vitro digestibility? Why is this canceled?

The revised standard deletes the indicator of in vitro digestibility due to three reasons. First, the assay method is not stable; second, the digestibility refers to the utilization efficiency of the fishmeal product by animals, and it is not the attribute of the product itself; third, if the quality of fishmeal is guaranteed (up to standards), the fishmeal or the protein contained in the fishmeal has a high digestibility.

10. Did you deliver a speech in the activity of IFFO in 2020? What are the major changes in fishmeal standards in China since then and why?

Yes. I introduced the basis of fishmeal classification on IFFO China Technical Webinar and put forward some technical analyses in 2020. At that time, the new fishmeal standard was not officially passed and issued. There are some differences in the setting of standard index values compared to now.

The major change is the value of malondialdehyde. The original value was 20/30/50, and it was later adjusted to 10/20/30. The reason for this change is that through testing the fishmeal samples of the target feed enterprises including Tongwei, Haid, Hengxing and New Hope, we found that the indicator value was set too loosely. The final indicator was set to 10/20/30. Another change is the salt value, and now it is no longer involved in grading. I have introduced it in this speech.

Besides, the value of glycine/17 amino acids also has changed. In 2020, the value of glycine/17 amino acids in brown fishmeal and white fishmeal was less than 9.0. It was found later than if 20% of by-product fishmeal was added in brown fishmeal, the requirement of 9.0 could also be met. But, after the value was adjusted to 8.0, the standard could not be reached when brown fishmeal was mixed with by-product fishmeal.

11. If the ingredients include both complete fish and leftover materials when fishmeal manufacturers produce brown fishmeal, how to define such fishmeal. Is it by-product fishmeal or brown fishmeal?

This question also involves the indicator glycine/17 amino acids. If the proportion is too high and over 8.0, it will be defined as by-product fishmeal. If it is lower than 8.0, it is defined as fishmeal of complete fish. Hence, the change of this indicator is also stressed in this speech. Enterprises should separate ingredients when producing fishmeal to adapt to the new standard.

12. Our company is a foreign enterprise and sells fishmeal products to China. We have the MOA license which indicates the limit of TVBN. The limit changes in the new standard. Does it matter to us?

The value in the version of 2003 will be no longer applicable after May 1. It should be judged according to the new standard.

IFFO comments: Requirement may be different when applying for a MOA license. Please email to china@iffo.com for further information.

13. Why is low-fat fishmeal not included in the new fishmeal standard?

We don't classify fishmeal according to fat. I also mentioned in the speech that limiting crude fat content means the limit of processing mode.

14. What are the 17 amino acids?

See Chapter 4.3: Physical and Chemical Indicators in the new version of fishmeal standard for the list. In addition, the result of the automatic amino acid analyzer also generally shows the 17 amino acids.

15. How should we do if the fishmeal does not meet any grade?

There is no concept of substandard grade in the new standard. It can only be deemed not to meet the standard.