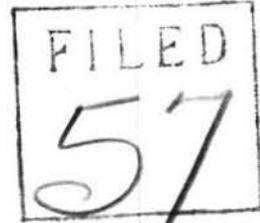


AGRICULTURE: Feed for livestock and poultry containing  
COMMERCIAL FEEDING: rice hulls in any form may not be sold as  
a commercial feed in this state.

November 1, 1939

Honorable Jewell Mayes  
Commissioner of Agriculture  
Jefferson City, Missouri



Dear Sir:

This is in reply to yours of recent date wherein you request an opinion from this department based upon the following statement of facts:

"This Department has need for your interpretation of Section 12,671 of the State Feed Law, and especially the forbiddance relating to the mixing or adulterating of any registered livestock or poultry feed with 'rice hulls.'

"Is this Department justified in interpreting this Section as forbidding the mixing or adulterating of any registered livestock or poultry feed with ground or pulverized rice hulls?"

Section 12671, R. S. Mo. 1929, in so far as it applies to your question, provides as follows:

"Any person who shall mix or adulterate any feed with rice hulls, chaff, peanut hulls, dirt, ground or crushed corncobs, sawdust, weed-seeds, the viability of which has not been destroyed except in poultry feeds or with more than five per cent of mineral substances with the exception that this five per cent limitation shall not apply to mineral feeds, or who shall mix or adulterate any feed with materials of little or no feeding value, or with substances in-

injurious to the health of domestic animals or poultry, or who shall sell, offer or expose for sale or distribution any feed so mixed or adulterated shall be guilty of a violation of this article.  
\* \* \*

From our research on this question, we fail to find where this section of the statute has been before the Missouri courts for construction.

Since your request indicates that there are some who think this law applies only to rice hulls which are unground or unpulverized, we will have to look to the statute and by construction determine whether or not the lawmakers intended that it apply to rice hulls in every form.

In the case of *Bowerman v. Lackawanna Mining Co.*, 98 Mo. App. 308, 316, the court announced a rule of statutory construction which is generally applied. The rule is as follows:

" \* \* \* then in interpreting the statute we should, we think, select and give it that shade of meaning which will make the statute serve what appears to have been the purpose of the Legislature in its enactment."

Another rule applicable here is announced in the case of *Missouri Granitoid Co. v. George*, 150 Mo. App. 650, 657, wherein the court states:

"Statutes are not to be construed so as to pervert the very object aimed at."

In support of the view that the statute does not apply to feeds containing ground or pulverized rice hulls, this department has received a brief and suggestions from interested parties. We note that these suggestions are in support of feed containing ground or pulverized rice hulls for domestic animals, but no suggestions are offered that such feed would not be injurious to poultry. These parties also take the position that the purpose of the act including rice hulls in

the prohibited class was to prevent them from being placed in the feed only for the reason that such hulls in their original form when taken into the stomach and digestive tracts of domestic animals or poultry, would cut and injure such organs of the animals or poultry, and for that reason alone should not be placed in commercial feeds.

Referring to this statute again, we concede that that was one of the purposes of the act, but we also think that feeds mixed or adulterated with materials of little or no feeding value are prohibited. Referring again to the act, it will be noted that chaff, peanut hulls, dirt, ground or crushed corncobs and sawdust are prohibited, not because they contain sharp particles like rice hulls do, which would cut the intestines of animals or poultry, but because they have little or no feeding value. Even though the rice hulls are ground or pulverized, there seems to be a difference of opinion as to whether or not they would contain small particles which would still cut the intestines of poultry or young stock.

In a treatise entitled "Feeds and Feeding" by Morrison, 20th Ed., which is considered an authority on the subject, we find at page 355, paragraph 573, that the author has the following to say about rice hulls in feed:

"Rice hulls are tasteless, tough, and woody. They are heavily charged with silica, have sharp, roughened edges, and are said to be irritating and dangerous to the walls of the stomach and intestines. In any event, they are digested to only a small extent by animals and furnish but about one-third as much digestible nutrients as wheat straw. They should therefore never be fed to stock. Yet they are still occasionally used by unscrupulous persons for adulterating stock feeds."

As rice hulls contain about one-third as much nutrients as wheat straw, then it seems that they would come within the class named in the foregoing statute as containing little or no feeding value.

It is suggested in the brief submitted in support of using rice hulls when ground or pulverized that this section

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does not prohibit the mixing of rice hulls with commercial feed unless such mixing destroys the "viability" of such feed. As a basis for this suggestion, the following language of the law is used:

"Any person who shall mix or adulterate any feed with rice hulls, chaff, peanut hulls, dirt, ground or crushed corn-cobs, sawdust, weed-seeds, the viability of which has not been destroyed \* \* \*."

We think the term "viability" as used in that section refers to the weed-seeds and not to the rice hulls, chaff, peanut hulls, dirt, ground or crushed corn-cobs or sawdust. Weed-seeds with undestroyed viability are prohibited for the purpose of preventing foreign weeds being introduced into this state.

In our research on the question of using rice hulls in any form in commercial feeds, the weight of authority does not recommend such use for the reasons (1) that the hulls of the rice cut the intestines of animals and poultry and they are thereby injured; (2) that rice hulls have very little feeding value.

Doctor Hogan of the Missouri University, who is considered by Missouri officials as an authority on animal nutrition, makes the following statement on this subject under date of October 7, 1939, to the Department of Agriculture:

"There is some confusion among feed dealers and possibly feed control chemists as to the meaning of the term 'Rice Hulls'. It is my understanding though that according to the Association of Feed Control Officials 'Rice Hulls' is that part of the plant that encloses the true rice kernel. This material would be comparable in a way to oat hulls, however, rice hulls have much less feeding value than do oat hulls. It would be almost impossible to pick out any part of another plant that would be worth as little as 'Rice Hulls'. There is no excuse or justification whatever for ever putting this

material in a feed. For your information I will enclose the percentage of digestible protein and digestible total nutrients of rice hulls and of two other very low grade feeds:

	Digestible Protein	T D N	N R
Rice hulls	0.1	9.9	98.0
Wheat straw	0.8	35.7	43.6
Oat hulls	0.8	38.3	46.9

This is copied from Morrison's Feeds and Feeding. This table indicates very clearly that no feeder could afford under any circumstances to use 'Rice Hulls'.

"In addition to the lack of feeding value rice hulls are stated to be actually injurious. They contain a very high percentage of silica and have sharp cutting edges."

While the view that the grinding or pulverizing of rice hulls removes the objection that when they are so ground or pulverized they do not have the sharp cutting edges and therefore will not injure poultry or animals to which they are fed, yet such grinding and pulverizing does not add to the feeding value of rice hulls. Chaff, peanut hulls, dirt, ground or crushed corncobs or sawdust may not have any particles in them which would cut or injure the intestines of animals or poultry to which they are fed, yet, since they have little or no feeding value, they are prohibited by this statute, and for the same reason we think rice hulls in any form are prohibited from being mixed with commercial feeds.

#### CONCLUSION

From the foregoing, it is the opinion of this department that the Department of Agriculture should not interpret the foregoing statute so as to authorize the mixing or adulterat-

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ing of any registered livestock or poultry feed with ground  
or pulverized rice hulls.

Respectfully submitted

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APPROVED:

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