



# The Federation of Hotel & Restaurant Associations of India

President : Kamlesh Barot  
Hony. Secretary : Vivek Nair  
Hony. Treasurer : Suresh Kumar  
Jt. Hony. Secretary : Deepak Puri  
Jt. Hony. Secretary : D.S. Advani

Member of Honour : Dr Ajit B Kerkar  
Vice President : K. Syama Raju  
Vice President : Ratan Marothia  
Vice President : S.M. Shervani  
Secretary General : M.D. Kapoor

29<sup>th</sup> March, 2012

Shri R.H. Khwaja  
Secretary Tourism  
Ministry of Tourism  
Transport Bhawan  
New Delhi – 110 001

**Sub:- Review of Standards of food products and additives under  
Food Safety and Standards, Regulations, 2011**

Respected Sir,

**Greetings from FHRAI!**

You will agree that the enactment of **Food Safety & Standards Act (Licensing & Registration)** and setting up of the **Food Safety & Standards Authority of India (FSSAI)** is a landmark regulatory development which will have wide ranging ramification for every segment of Indian Hospitality Sector.

FHRAI acknowledges that the intent of the FSS Act is to strengthen and safeguard public interest and therefore we are committed to extending our full support and co-operation to make this new mechanism successful.

In response to public notification issued by FSSAI inviting suggestions from stakeholders, FHRAI has been pleased to present a comprehensive proposal (copy enclosed for reference) which has been based on our extensive nationwide consultation with eminent Technical Experts and our members.

We would humbly request you to kindly use your influence and ensure that our proposals are carefully examined and favourably considered.

Thanking you and with warm regards,

Sincerely yours,

M.D. Kapoor  
Secretary General

Encl:- A/a



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**March 16, 2012**

The Chairman  
Food Safety And Standards Authority of India (FSSAI)  
New Delhi

## **Sub: Suggestions from the Federation of Hotel & Restaurant Associations of India (FHRAI) on Food Safety & Standards Act (Licensing & Registration)**

Dear Sir,

We are the only Federation of all Hotels & Restaurants Association s of India (FHRAI). We are considered to be the voice of the Hotel Industry and as such we are constantly in touch with the Union of India for consultation in various policy matters concerning the Hotel Industry.

Please find here below our humble suggestions with regard to various aspects of the FSSAI Act including rules & regulations framed there under.

Having regard to the fact that the Hotel Industry was never consulted as a separate Industry within the Food Industry , FHRAI would sincerely appreciate that FSSA constitutes a High Power Committee (HPC) comprising of Hotel Industry experts and FSSAI representatives for drafting or proposing all such standards , guidance or training modalities . FHRAI humbly submits that a more Hotel Industry specific rules, standards and penalties considering the cultural diversity as well socio economic situation prevalent across all regions of the country is required to be formulated so as to ensure that this piece of progressive Law is implemented in a cordial manner.

We wish to state that FHRAI is in a position to form its own teams to start labs, separate teams to create awareness, and empanel auditors, because if you may go through the list of empanelled agencies one may understand that we are playing in to the hands of MNC audit firms, who could threaten us with Government documents and help in signing business with them.

FHRAI Suggestions are as follows:

**SUGGESTION FROM THE FEDERATION OF HOTEL AND RESTAURANT ASSOCIATION NEW DELHI ON - FOOD CHECK LIST**

SR NO	FSSAI LAWS	FHRAI SUGGESTION / RECOMMENDATION
1)	FOOT MAT; to be kept at the entrance :	It is impossible for restaurants to maintain the same. For Hotels it doesn't serve any purpose as staff change footwear in the staff lockers after entering the hotel and move thereafter to various places of production which are kept well clean. It is impractical for us to separate or restrict the movement of production staff because in our industry their nature of work demands them to walk to butchery, stores, receiving and inspection rooms and at times they have to meet guests to cater to their specific requirements.
2)	Less than 4*c for chillers :	The industry has a well established validated practice on cold storage of perishables, cooked veg and cooked non veg food. The parameters are : walk in coolers are used for vegetables, fruits, milk, curd, etc and the range is +3*C TO +7*C, cooked veg is 0 to 4*c and cooked non veg is -4*c to 4*c.
3)	Cooking temperature for hot food is 65*c :	The hygiene requirement under part V of schedule 4 says 60*c, now in your checklist it is mentioned as 70*c. We have time and again validated this process and it is 65*C for all food stuff other than chicken where the core temp must be 70*c.
4)	Reheating temperature is 74*c :	

5)	Should not mention that FBO must have water purifier :	The Government supplies / provides potable water through local administration which should be accepted as the same is well treated . This condition could be imposed only in the event the supply from local administration is absent.
6)	One hand wash for every 20 staff:	One hand wash facility for every 20 staff is impossible and impractical.
7)	In terms of ceiling, floor and wall:	Our suggestion is that FSSAI should just mention that they should be of standards that will ensure production of safe food. By restricting the usage to a few materials /vendors, you are restricting us from usage of better technology or alternative methods.
8)	Transportation of food in vehicles with temperature control:	Is unnecessary as in many cases restaurants, hoteliers and caterers do not normally carry prepared food for locations beyond two hours of travel for serving, then why would we need it? Cold food is taken in ice pack boxes or a pilfer proof; closed vehicle is fine but not this precondition. Hence this condition should not be mandatory .
9)	Health check once in six months:	Is impractical, should be once a year.
10)	Cooked oil not to be reused:	This is difficult but should go by the definition like rancidity or pH values, because the auditors who are unexposed to the industry may be unaware of our industry requirements.
11)	For fresh license a well equipped lab is demanded:	We insist that labs which follow established test procedure and are identified by the Federation or accepted by the industry as reliable agencies may be accepted by FSSAI, because our members need better access and we must accept more practical solution in this regard.

## **FHRAI - VERY IMPORTANT RECOMMENDATIONS TO FSSAI ACT**

SR NO	FSSAI REGULATION	FHRAI RECOMMENDATION
12)	Preconditions for license annexure -3 point no 4 demands certain qualification as compulsory.	<p>Many hoteliers and restaurant owners are reasonably educated , qualified , possess enough knowledge to maintain hygiene and take care of production process as they have been doing it for generations . they may not have a food tech, bio , hotel mgt or catering diploma / degree but may have done commerce or management courses .</p> <p>the criteria will make business expansion very difficult . Most of these appointed graduates keep switching jobs ! .</p> <p>at one hand we are actively told to encourage and employ who have short term certificates from national skill development courses etc at the other hand this law recognises only a minimum 16 credit course .</p> <p>The industry is facing severe manpower crisis and such conditions will make it worse .</p>
13)	Point 3 of same and 6 demand that the fbo should indicate the modification or change of activities or content and no product other than mentioned should be produced .	<p>Restaurants and Hotels have to make the guest happy with adhoc food festivals and respond to various special occasions / seasons. certain high profile catering including hosting state heads for ceremonial dinners have to be done as situation demands. hence hoteliers and restaurants must be allowed to broadly declare our category as cold food process and hot food process. we should not be compelled</p>

		to inform changes in kitchen or restaurant which are too frequently done as per guest demands like on spot cooking in function halls . we may kindly be exempted on this.
14)	Clarity on transfer of license.	Because in restaurants cross branding and switching from one culinary style chain to another is very common and frequent. while there is clarity on transfer in case of death the issue of normal transfers has to be well spelt out. we feel this will encourage trade and as such transfer is allowed in other licenses also.
15)	Many restaurants have central kitchen with many outlets so also the bakery / confectionary units. do such fbo's apply for one license? greater clarity is called for .	If it be separate license for many units / outlets within one city supplied from one production centre then the fee is prohibitive. we strongly recommend that a single license be given in such cases where only conditions of hygiene may be insisted on every point of sale.
16)	It is stated that from authorized vendor or supplier the fbo has to buy raw material.	It is possible for all prepacked products . however , it is impossible for resort hotels and tourist destination restaurants to search for certified suppliers for perishables .moreover , this would also amount to denying the guest opportunity to taste locally available fresh produce . it is our suggestion that the fssai needs to clarify that exclusively for caterers, hoteliers and restaurants that other than meat in perishable products the practice of buying good quality ones and gmp be followed .

**OUR SUGGESTION ON STANDARDS**

<b>Sr. No.</b>	<b>FSSAI REGULATION</b>	<b>FHRAI RECOMMENDATION</b>
17)	There are many references on crop contaminants , fertilizer residues , insecticide residues and presence of heavy metals in spice , agricultural produce etc .	It is our humble submission that the government may first share with us details of statistics on all such items with specific geographical identity and government accredited lab results which can be verified so that we are in a position to procure them
18)		It is quite out of reach of any hotel or restaurant which has innumerable raw materials and continuously varying demands based on guest preferences to first analyze each raw material in lab then order and process .
19)	About 150 insecticide residues are given	We have to test for its absence or limit in say 100's of items it will cost more than annual turnover of an individual FBO . needless to say about other residues too.
20)	We may also bring to the kind notice of fssai that in order to assist our members we have been seeking information on quality as demanded by fssai on various grains, spices etc	The real produce in the nation from various states without any further interference on the product ,just the natural produce which is largely based on rain, irrigation facility and soil quality - lab results have been found to be short of standards described . we may therefore appeal that a more realistic science based evaluation of present climatic conditions and natural produce quality be done and later prescribed for us to follow. please issue circular to enforcement agencies in state not to lift samples and test from hotel or restaurant or caterer for substandard or trace of residues or presence of heavy metal contaminants . because standard of raw material as prescribed is unavailable or out of reach or extremely scarce at this point of time.

21).	We are also taken aback by the sentiments expressed in this law for example a line reads in 2.1.7 – normally inspection may not be done if an accredited fsms auditor or agency has certified .	Very few purely Indian agencies have been accredited for FSMS audit and industry has not been consulted on FSMS audit accreditation as our trade is quite unique. we pray for FSSAI to guide us on what is the meaning of this accreditation. because nabl is the only body for lab accreditation but for audit of fsms govt has accepted as accredited agencies beyond NABCB . we are unclear about this. we suggest industry trained fsms internal auditors or auditors approved through a qualifying examination through our industry federation educational institute be accepted for this purpose.
22)	In food additive standards and regulation 3.1.2 (6) states that synthetic colours may be permitted only in savouries ( dalmoth, mongia, phululab, sago papad, dal biji only).	<p>In a nation as big and varied as ours why savouries across the nation have not been included .</p> <p>most of the items like ice cream, soft drinks, confectioneries, biscuits consumed by children (who are more susceptible to health hazards) are allowed to have colours. similarly, milk products like ice cream, flavored milk, yoghurts &amp; sweets are allowed to have colours where as it is not permitted in shrikhand, however, it is a sweet and milk product too. this policy is not uniform and hence the purpose appears to be irrational . therefore, it is suggested that necessary relaxation in the said issue be considered taking due consideration of the local culture, recipes, demographics etc.</p> <p>the hoteliers, restaurants and caterers have not been well consulted before. we suggest fssai reconsiders this portion .</p>
23.)	We appeal that the flat prohibition of stevia to be used be lifted.	Because tourists familiar with biorichness of India demand non toxic species of stevia . when Europe itself is considering the use of this why it is banned here . we request that caterers, restaurants and hoteliers be allowed to use natural substances unless declared toxic by global agencies



Sr. No.	FSSAI REGULATION	FHRAI RECOMMENDATION
24)	The purchaser may take samples	Is a very harmful provision for us, as you may acknowledge that antisocial elements, others who are denied free meal and donation would immediately use this and create such ruckus in our restaurants which depend on few hours of peak traffic business it doesn't mean we are against consumer right. Infact we are hospitality people and always believe that guest is right. Complaint on food quality, taste is always corrected by not collecting bill or replacing the item or immediate rework. The FSSAI may consult our representatives in order to balance between consumer rights and our apprehension through more reasonable provision.
25)	All penalties from sec- 50 to sec - 67	are unimaginably high. Many are 200 to 300 times higher than the PFA penalties. Already the enforcing officers are coming to us with print out of fine and imprisonment details, demanding money and undue favours. We humbly call for rationalization of the penalties.

**The following need to be amended in the requirement conditions for license;**

Sr. No.	Points To Be Amended	Amendments Required
26)	Chilling of food is broadly classified and it is mentioned as less than 5°C.	Industrial practice for uncooked but cut, peeled, mixed, soaked vegetarian items has to be 3 to 7°C not exceeding 24 hours
27)	Chutney storage is to be stored either in food grade plastic material or glass containers	This has to read as <i>food grade material only</i>

28)	It is mentioned as all fruits and vegetables which are to be served uncooked must be washed in 50ppm chlorine	This must read as those which are washed, must be done in an appropriate manner with an acceptable sanitizing liquid like chlorine for example and not beyond 50ppm. The same must be validated for its efficacy by the operators quality assurance team from time to time
29)	Food kept in display must be disposed is a very vague expression	Cooked food with gravy or completely prepared salad in buffet, prepared chutneys or such accompaniments as deemed unfit for reuse or rework as normally acknowledged in catering practice, may be discarded
30)	Recommendation on food transport from say a central kitchen to the point of sale and transport from point of sale to point of catering	In both cases temperatures mentioned are very general. It is an accepted industrial practice in catering, that it is ensured that production is planned, keeping in mind maximum window period of 3 ½ hrs. - hot food stays and cold food stays cold. There are quite a few items that cannot be kept beyond 60* c temperature as they may lose their quality and wholesomeness. It would be better to state this range is recommended and in specific dishes such temperature range which is validated
31)	Even after the implementation of this act local authorities from public health are demanding for Food Handlers Certificate	Which in reality is available in major Corporations and big Municipalities but many Panchayats do not have any facility to issue such certificates. even where it is issued it lacks details which are important for a Food Handler. <i>Hence we would highly appreciate if the act says annual check up from a registered medical practitioner.</i>
32).	There are more than 150 insecticide residues for MRL in various food substances which have been	These residues are impossible for hoteliers and restaurant owners to trace. needless to say about crop contaminants of other kinds. As catering industry we can assure that we source

	mentioned	from approved vendors for packed products and from authorized markets for perishables . We will reject the spoilt ones, pre wash etc . but there have been occasions even in the erstwhile Act PFA where inspectors have filed cases against hotel/restaurants for trace of coloring substances in turmeric powder or chili powder
33)	For prepared food in both cold food process and hot food process .	A more clear microbiological criteria is required
34)	FSSAI should declare	That for Food and Water related matters as far as restaurant and hotels are concerned , No other agency should demand another license or test etc. other than for Effluents Pollution Control board.

<b><u>Sr no</u></b>	<b>FSSAI</b>	<b>Recommendation</b>
35)	Bifurcation of FBO is required in terms of turnover for the purpose of employment of technical person.	Please refer the FSS Regulation 2011, Chapter:2: Section 2.1.2, 2.1.3 and 2.1.17. Form B is for Application for license / renewal of license under FSSA 2006. In this forms Sr.No.4, there is a provision of employment of technical person in charge of operations. There is no Classification of license holder. At present, it is from turnover above 12 lakh to no limits. This provision is very impractical for small FBO those who themselves prepared and storing the foods and selling to consumers. Here there must be some more bifurcation is required to define FBO in terms of turnover. The above provision should not to be applicable to all class of FBO, those falls under

		<p>License requirements.</p> <p>We suggest the following criteria's could be laid down in respect of employing technical person as below :-</p> <ol style="list-style-type: none"> <li>1. Those FBO has a turnover above 50 crore.</li> <li>2. Those FBO prepared / manufacturing / processing / their food articles with the help of machinery.</li> <li>3. Those FBO has a capacity to employ at least 250 unskilled / skilled persons.</li> </ol>
36)	<p>License under the FSSAI should be one and only. The other license category like sanitary / health should be merged.</p>	<p>We urge the FSSAI to intervene in the matter of dual license issued by Local Bodies / Municipality / Municipal Corporation etc. These agencies issue Health / Sanitary license and Food license and inspection is carried out by sanitary inspector, form health dept is in a way duplicating the work of FSO. Now this FSSAI 2006 is amended to merge different food laws and finally it is a supreme act among all food laws. The license condition is more deterrent and emphasis to maintain the sanitary and hygiene condition for FBO. We request the FSSAI to provide guideline to the Local Bodies for the implementation of FSSAI 2006 and merge the different sanitary / health inspection as well license and issue the circular / mandate accordingly so as to ensure that the object of FSSAI is not defeated. FSSAI should clearly state that for food and water related matters as far as restaurant and hotels are concerned, no other agency should demand separate licenses or test etc. other than for effluents pollution control board.</p>
37)	<p>PFA license should be immediately transferred to FSSAI license at present. (on condition apply)</p>	<p>To expedite the license procedure, the transfer of license shall be instantly converted from PFA to FSSAI and provide Application ID. We suggest that pending the compliance of the licensing conditions, all PFA licenses should be converted to FSSAI immediately.</p>

38)	License Documents should be feasible	<p>The number of documents listed in the FSS Regulation 2011. The documents should be in such a way that which is routinely available and without financial load to FBO. The lay out plan or its blue print, water analysis report with chemical, bacteriological, pesticide residues etc. should be omitted. Most of all FBO, using Municipal tap water, which is treated and disinfected by chlorine / disinfected agent and tested by their own laboratory. There should be some option in this provision. Apart from this, it is necessary to simplify and reduces the number of documents for license.</p>
39)	License penalty should be reduced :	<p>FSS Regulation in Chapter 2: The following penalties enforce :</p> <p>(1) Under Section 2.1.7 (4) The renewal of license application filed beyond the expired period shall be accompanied by a late fee Rs.100/- day for each day of delay. This is unreasonably high . FBO may miss the renewal due to oversight . Hence it is requested that the penalty should be Rs.10/- per day and maximum Rs.500/-.</p> <p>(2) Under Section 2.1.13.(3). Any delay in filing return beyond 31 May of each year shall attract penalty of Rs.100/- per day of delay. For the reasons mentioned above , we humbly suggest that this penalty should be reduced to Rs.10/- per day of delay and maximum Rs.500/-.</p>
40)	FSS (Licensing and Registration of FBO Regulation 2011 : Chapter 2: Part V (II)(2)	<p>To wash vegetable and fruits by 50 ppm of chlorine .</p> <p>We would like to draw your attention that 50 ppm of chlorine in a water is very high . Under this concentration lot of problem arises, like corrosion in pipeline leading to break down , skin disorders of person handling the F &amp; V, adverse affects on health and difficulty in getting water containing 50 ppm of chlorine in pipelines. We request you to look into this matter and</p>

		correct it to 0.5 ppm to 1.5 ppm as maintained by Municipal authority in Tap water.
41)	Annual returns is totally avoidable as the same is appropriate to food processing / packaging industries	However , for restaurants to file returns and details of every aspect of production is impractical Moreover , the process' adopted by FBOs are not automated and are excessively reliable on human effort and wide range of raw materials , the consumption of which varies from one Cook to the other .
42)	Designated Officer	- Adjudicating Officer should not be the departmental officer . The said DO adjudicating the prosecution initiated by his own subordinate FSO appears to be arbitrary , improper and against the principles of equity and fairplay . In Mumbai / Metros DO is the Jt Com . DO in our humble opinion should be at least of a rank of sub Judicial Magistrate .
43)	Rule 4 (1) FSO sealing premises is arbitrary for lack of settled and or defined procedures for the same	The said provisions give unbridled and arbitrary powers to the FSO thereby rendering FBOs to arm-twisting . Sealing of premises in various laws are subject orders of the competent Court . We suggest that due process of law should be adopted in such issues .
44)	Improvement notices Sec 32	Should be issued only in instances when the non compliance is within the control of the FBO . As the standards prescribed are impractical at many places ( considering the socio-economic condition in different parts of the country ) , as also many of the standards are subject to the general hygiene or sanitation adopted by the local administration , FBOs being targeted for non-compliance of standards even beyond their own control is possible . Hence defined procedure for issuing of Improvement notices is called for .
45)	Sec101 Union has powers to remove difficulties	Having regard to the same , bi-yearly consultation process should be initiated by the FSSAI to call for periodical audit of the existing law and rules /regulations framed there under as

		also review of prosecutions launched therein .
46)	Penalty must be rationalized	Firstly , penalties as high as 2lacs – 10 lacs are exorbitant and unreasonable . So also , discretionary power of imposing penalties between 2lac – 10 lacs will lead to severe corruption .
47)	Exemption of raw material from sampling	Prosecution based on samplings of raw materials must be reconsidered . FBOs should not be made to go through prosecution for problems in raw materials which are beyond the control of FBO .
48)	Section 34 Emergency prohibition orders should be confined to the Courts and not the department	This would ensure that there is no abuse of such wide powers entrusted in departmental officers .
49)	In cases of first offence of not serious nature , the power to compound could be given to DO , designated officer	This is having regard to the stringent standards prescribed , socio –economic conditions and general sanitation . hygiene prevalent .
50)	Section 2 (zz) Unsafe food	This is a definite area of concern , which needs greater study and rationalization .
51)	FSSA 2006 : Chapter 9 : The provision of 'Offences and Penalties'	<p>In this provision, there is a need of revision sympathetically . Section 63 of above chapter : In regard to Punishment for carrying out a business without license, we request for relaxation of punishment which is much higher than for other serious offences under the Act .</p> <p>Under Section 64 : Punishment for subsequent offence.. It is requested that the punishment is required but should be on the basis of gravity of offence . We suggest that it should be after three offences and the license shall be cancelled for a reasonable period of time .</p>

Our humble suggestions in short are as follows

- We expect to be well represented in committees defining product standards.
- Our risk analysis be considered and our responsibilities be limited to processing and serving
- We would follow best practices in identifying vendors , follow GMP in receiving and storing
- But such exhaustive analytical detail between procurement and finished product is impossible for our nature of work.
- We wish to be guided in future by more well published realistic data for procurement from government sources until such time enforcement may be directed not to take raw material samples from us on physical or chemical standards .
- We will certainly maintain raw material in good condition with well planned pest control programmes.
- That local advisory committee or fssai implementation council be formed with adequate industry representation and enforcing officers being part of it . it will enable the noble intention of this law be realized or else we have already started feeling a lethal weapon is supplied to very imbalanced, unfair local officers. our interaction has revealed their total lack of understanding of fsms and our parameters . meeting of this council should be on bi-annual basis so that a proper evaluation of the prosecutions , difficulties etc could be undertaken as the law evolves
- We would humbly request that definition of laboratory may be redefined as those laboratories that follow stated protocol by fssai or standard references globally accepted for said criteria . because not every FBO can own lab or have human resources to manage . nabl labs are far less and expensive . FSSAI must recognise and notify labs created by Federation or Industry Association.



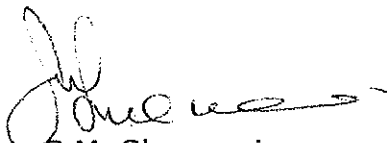
- We are worried that the standards are not very supportive to the farming community because if we in the industry go by the rule book we may have to import everything. we request that guidance to us and farmers be given on present water resource quality/ standards in this country . possible residues from imported fertilizer and insecticide as per application recommended to farmers in produce ,effect or residue of antibiotic in fish , meat and poultry . the fbo is the most important life line of agriculture in this country. hotels, restaurants and caterers are perhaps paying the best possible rate to the farmer and take maximum fresh produce . we welcome safety and are willing to ensure that all our customers are safe but we are apprehensive of prescribed standards which seem as it stands today highly impractical.
- We appeal that both the farmer and FBO's be protected and well guided with reasonable changes made to this new act.

FHRAI hopes that the Authority finds our humble suggestions in order and worthy of consideration . FHRAI also prays for meeting with your good self , in case there is need for oral submissions . FHRAI on behalf of its members and the Hotel Industry fully supports and welcomes the new law subject to consideration of our serious concerns as mentioned herein above .

FHRAI looks forward for a early positive response .

Thanking You,

With warm regards,



S.M. Shervani  
Vice President



Proposal regarding comments/suggestions for inclusion of new standards/modifications of existing standards/ deletion of existing standards in the FSS (Food Products Standards and Food Additives) Regulations, 2011

*Submitted by:*

**The Federation of Hotel & Restaurant Associations of India**

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**March 29, 2012**

## **POINTS REPRESENTED BEFORE THE FOOD SAFETY STANDARDS AUTHORITY OF INDIA**

### **Our Prayer:**

1. State advisory committee must be constituted comprising of stake holders from the industry to guide FSSAI on ground reality standards.
2. The lab reports of Government , regional research institute in agriculture ,five samples drawn from various go downs across the states must be analyzed in order to arrive at one national standard and another local permissible standard as per availability of the crop produced within the state.

(Recommendations are PART V general conditions for license)

### ***The following need to be amended in the requirement conditions for license:***

1. Chilling of food is broadly classified and it is mentioned as less than 5\*c. industrial practice for uncooked but cut, peeled, mixed, soaked vegetarian items has been 3 to 7\*c not exceeding 24 hours.
2. Chutney storage is to be stored either in food grade plastic material or glass containers. that has to read as food grade material only
3. It is mentioned as all fruits and vegetables which are to be served uncooked must be washed in 50ppm chlorine this must read as those which are washed must be done in an appropriate manner with an acceptable sanitizing liquid like chlorine for example not beyond 50ppm .the same must be validated for its efficacy by the operators quality assurance team from time to time .
4. Oil reuse and heating it not more than twice are mentioned a more scientific direction could be giving a pH range as you may appreciate in catering many oil pans are continuously on fire for 8 or 10 hrs in certain cases which can be very dangerous though it could be construed as using only once.
5. Food kept in display must be disposed is a very vague expression. cooked food with gravy or completely prepared salad in buffet , prepared chutneys or such accomplishments as deemed unfit for reuse or rework as normally acknowledged in catering practice may be discarded .
6. Recommendation on food transport from say a central kitchen to the point of sale and transport from point of sale to point of catering in both cases temperature s mentioned are very general. it is an accepted industrial practice in catering that it is ensured production is planned keeping in mind maximum window period of 3 ½ hrs . Hot food hot and cold food cold. There are quite a few items that cannot be kept beyond 60\* c temperature as they may lose their quality and wholesomeness. It would be better to state this range is recommended and in specific dishes such temperature range which is validated .
7. Even after the implementation of this act local authorities from public health are demanding for food handlers certificate which in reality is available in major corporations and big municipalities but many panchayats do not have any facility to issue such certificates . even where it is issued it lacks details which are important for a food handler . hence we would be highly appreciative if the FSSAI advertises and clarifies the issue of annual check up from a registered medical practitioner .
8. There are more than 150 insecticide residues for MRL in various food substances have been mentioned. These residues are impossible for hoteliers and restaurant owners to trace .needless to say about crop contaminants of other kinds. As catering industry we

can assure that we source from approved vendors for packed products and from authorized markets for perishables . we will reject the spoilt ones , pre wash etc . but there have been occasions even in the erstwhile act PFA where inspectors have filed case against hotel/restaurants for trace of colouring substances in turmeric powder or chili powder .

9. A more clear microbiological criteria is required for prepared food in both cold food process and hot food process .
10. FSSAI should publish an advertisement that for food and water related matters as far as restaurant and hotels are concerned no other agency should demand another license or test etc other than for effluents pollution control board.

## **IN THE RULES FOR LICENSE**

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As per 2.1.7 subsection(6) states Food business Operator having valid certificate of an accredited food safety auditor or from an agency accredited by food authority or any other organization notified by food Authority for this purpose will not be normally required to be inspected before renewal of license.

This section is very discriminatory and seems to encourage business for certifying bodies. FBO's are confused with accreditation of such agency.

## **OUR PRAYER**

Very few purely Indian agencies have been accredited for FSMS Audit and the industry has not been consulted on FSMS Audit accreditation. We pray the FSSAI to guide on the meaning of this accreditation. Because ,NABL is the only body for lab accreditation but for AUDIT of FSMS Government has accepted as accredited agencies beyond NABCB. We are not clear about this .Industry trained FSMS Internal auditors or Auditors approved through a qualifying examination conducted by our industry association be accepted for this purpose.

## **Conditions of License**

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### **Schedule 4**

#### **Condition No. 4**

In our Country, most of the non star hotels are run as self employment enterprises. Many hoteliers and restaurant owners are educated and possess enough expertise to maintain hygiene and take care of production process as they have been doing it for generations.

Many food processors are also self employed people with lot of experience and skill which is family tradition. They supervise their industry and have sufficient knowledge of hygiene and food safety.

They may not have a food tech, bio, hotel management or catering diploma degree, but may have done commerce or management courses. The criteria will make business expansion very difficult. Most of the appointed graduates keep switching jobs. At one hand we are advised to encourage and employ candidates who have short term certificates from National Skill Development courses. On the other hand, this law recognises only a minimum 16 credit course. The entire industry is facing severe manpower crisis and such conditions will make it worse.

## **Our prayer**

Accept knowledge of process with minimum experience as criteria which can be decided by industry federations . we are open to give self declaration document of experience , process knowledge, hygiene and food safety training received by that individual who is nominated by the ownership or FBO. please do not forcibly corporatize family run business .

### **2.1.9 – Modifications, Expansions and changes**

This cannot be applied to all food business operators . many of them carry their business in rented premises . certain changes are warranted due to extreme weather conditions immediately , in certain business consumer or guest preference or special occasion demands are such that no one can wait for one month to get an approval to make such changes or modifications or expansions .

The industry representatives must be called to find what is practical and which of the industries at what size of business may be requested to do it . This provision needs definite amendments.

### **2.1.13 – Return D(1)**

This is quite impossible once again for certain types of business like hotels and restaurants. It is humanly impossible to daily ask the cook or chef to give quantity details of the 300 or 400 items produced in kitchen or even classes of products

It is quite difficult for sweet, bakery manufacturers also.

The industry also has strong reservations about giving such crucial statistics about class of products with quantity as sharing this with competitive processors may affect marketing strategies.

The industry is in no position to understand how this relates to food safety .

### **2.1.11 –Transfer of license**

Transfer of license in case of death is defined but transfer otherwise is not clearly defined.

## **Recommendation**

Majority of Indian business is family run and responsibilities are divided without preset date and time.

In such a scenario, transfer of License along with business becomes necessity .The FSSAI may clearly spell out the conditions on transferability of license and the rights thereof to the original holder of license.

## **Penalties**

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### **Our Prayer**

Penalties under various sections from section 50 to 67 are 200 times to 500 times higher. It is beyond apprehension as to how a self regulatory, decriminalized version of law can be so harsh on punishment.

This set of just 19 sections of the new act has made all FBOs revolt. This is the same set of sections which the enforcing officers use and threaten the FBOs.

The real enforcement and our positive frame of mind to abide by the spirit of this law much depends on how FSSAI reduces considerably the penalty and punishments.

## **AGAINST NATURAL JUSTICE**

Section 50, 51,52,53,54,55,56,61 are all in real time business mistakes that can occur. That is why globally there are live product recalls and subsequent withdrawals. This kind of size of penalty with very little reports and sections like 56 where it is discretion of an officer the risk of undue punishment meted out to an FBO is too high. It is against natural justice particularly when zero error proof machines of Indian origin have not come in labeling or printing.

## **IMPORTANT POINT TO NOTE**

The appointment of adjudicating officer and the role given to him on compounding offences may kindly include the proceedings in case of license related matters too because we as FBOs are extremely apprehensive of a very junior officer like designated officer to be the final authority on matters concerning license.

The FSSAI has announced March31st as the date of the submission for various recommendations to be represented to the scientific committee of the authority by FBO's.

In this regard we wish to pray to honorable authority that till the fifteen month finalization standard is not over. No sample on raw material /finished products be lifted for proceedings against FBO.

In our scientific representation we are giving the detailed note on why standards are inconsistent with reality and how many samples are bound to fail.

Given that the fine amount is so huge the FBO should not be penalized for possessing a raw material about whose quality like pesticide residue, Ash content or any such finer detail. He has no control. Most importantly such material as prescribed by the standard without calling the industry representatives or procuring data from the government own wings like Ministry of Agriculture or other research institutions a standard has been prescribed. For Ex: Cumin seeds must have Non-volatile ether extract on dry basis not less than 15.0% by weight. But in the last several years it has not exceeded 9%. We has FPO's have continuously been analyzing raw materials in order to give the best .

### **Our Prayer:**

1. State advisory committee must be constituted comprising of stake holders from the industry to guide FSSAI on ground reality standards.
2. The lab reports of Government , regional research institute in agriculture ,five samples drawn from various go downs across the states must be analyzed in order to arrive at one national standard and another local permissible standard as per availability of the crop produced within the state.
3. In pesticide residues there is a huge gap between a very desirous prescribed standards of FSSAI vs. Actual pesticide residue in raw material across the country due to many factors .

***Our detailed representation has attached Links and documents on these.***

- a) ADI or TMDI logic is not well explained in the concept note of FSSAI in arriving at these MRL's.
- b) The CIBRC itself is extremely short of data updation on this.
- c) The Insecticide as banned certain chemicals which are supposedly manufactured for use by the directorate of public health for preventing some other disease. For eg:DDT etc.

- d) Even a pesticide stopped from application will have the residual effects for atleast two to three years in various farm produce.

We are shocked and it is out of control of FBOs. Even Government has failed to control such residue from interfering with product quality in Agri produce by ensuring that water and soil are safe.

- e) Government has no published data which is comprehensive either by alphabetical orders of chemicals or by order of food categories where it has shared information to farmers on application per hectare in specific climatic conditions and expected residue in farm produce.
- f) Certain crops are rotational/ seasonal like chilly for tobacco or cotton.  
It is real time experience and a known farm management principle that pesticide residue in such crops are high. A processor has tonnes of material in trucks landing from various farm yards. Government procurement centers are yet to publish a detail of residues in crops of this special kind.
- g) We have no specified data on what kind of recommendations were given for wide varying climatic conditions of our country.
- h) As per records of CGWP and CPHHEO various underground water tested by Government agencies have huge variation from standard on pesticide residue.
- i) The whole chain of pesticide selling ,distribution and usage is so uncontrolled that the pesticide poisoning related deaths are nearly about 2 Lakhs in this country.
- j) It is ironical that the Government is ambitiously trying to prescribe something to FBO who is as helpless as the consumer when no attempt has been made to educate, control and analyse the use and disuse of the pesticide with farming community.
- k) FSSAI must be considerate and appreciate that the cost of analyzing the residue in food for every chemical is approximately from Rs2000/- to 4000/- per sample. Please multiply with 221 pesticides, 400 food varieties and some 1000s of combinations we make through them.
- l) Cost of knowing something to be standard for a law abiding FBO through lab analysis is far above his annual turnover.
- m) We have data only on crop production pesticide consumption state wise. We have nothing to derive from this data to make a decision as per FSSAI requirements.
- n) We are also surprised as to why NOAEL , ADI or TMDI value based logic have not been explained in the framing of FSSAI and we are not able to comprehend the backward linkages on science based reasoning for tolerance limits prescribed to us.
- o) We would also like to point out that samples lifted from different NGOs and other labs from Government food depots have failed for FSSAI prescribed limits.

It is therefore expected from an act which is aimed at self regulation and Decriminalisation of business to be more interactive, consultative realistic, scientific and relevant. Enabling us to implement.

In summary thereof, for the next nineteen months we pray for a blanket restriction for lifting samples be published to all food safety commissions for all raw materials and finished product standards till standards are finalized and mutually agreed by FBOs.

### **OUR PRAYER ON ADDITIVES**

Many Additives are multifunctional as per our practical experience. We do not expect FSSAI to restrict our freedom on usage of these by mentioning specific use. It is a curtailment on our research and innovation.

Traditional uses of certain additives have been neglected, many items where additives are used have not been categorized in your standards.

we pray for a negative list of additives with some reasoning reference and provide us with guidelines like GRAS/GMP.

We are unable to understand FSSAI non-recognition of natural product derivatives, use of natural antioxidants and Bioactive molecule based innovative products.

We do pray that a more frequent time table to review standard and a fast track cell be created to register the use of new additives.

We are grossly disappointed that a self regulatory, transparent law is trying to dictate process terms to us.

We expect the Government to completely revise additives standards based on interaction with real time users.

### **OUR PRAYER ON PHYSICAL AND CHEMICAL PROPERTIES**

The climatic conditions have changed so much that many standards published as 2011 standards by FSSAI are unreal. The moisture content, fiber content and volatile oil content have all changed.

There is very little concrete and comprehensive data on all this in any Government publication. Sample research papers here and there do indicate that said standards are not possible.

We in the industry constantly try to match customer expectations and our own lab findings discover that the standards are not reached from the raw materials we receive.

Surprisingly the seat of cultivation of special farm produce like cumins from Gujarat, chilly from Andhra, pepper from Kerala, ginger or turmeric from Erode even fail for standards as mentioned in FSSAI.

These are the results for the past few years and a new act should have consulted the real producers or the real users.

It is for the above mentioned reasons that we feel local State Advisory Committee becomes more relevant.

We request "STANDARDS REVIEW CELL" to carefully go through the following representation made by us.

### **DECLARATIONS:**

1. The samples indicated are random reports and not exhaustive.
2. The links highlighted are from common source and we have no control over editing of the same.
3. References from Government publications are reproduced as they were.



4. Results of lab findings are from CGWB, NIN, TNGMA, Government of West Bengal, Spice Board of India and from various industrial labs.
5. Concerned Industry heads, quality assurance experts and FBOs have collated these findings.
6. The facts represented are original representations made by business operators and reaffirmed by senior fraternity with more than three decade experience.

## **Food Safety and Standards (Food Products standards and Food Additives), Regulations 2011**

### **PESTICIDE RESIDUES**

<b>Name of Insecticide</b>	<b>Type of food</b>	<b>Tolerance limit mg/kg.ppm)</b>
Aldrin, dieldrin (the limits apply to aldrin and dieldrin singly or in any combination and are expressed as dieldrin)	Food grains	0.01
	Milled Food grains	Nil
	Milk and Milk products	0.15 (on a fat basis)
	Fruits and Vegetables	0.1
	Meat	0.2
	Eggs	0.1 (on a shell free basis)
Carbaryl	Fish	0.2
	Foodgrains	1.5
	Milled food grains	Nil
	Okra and leafy vegetables	10.0
	Potatoes	0.2
	Other vegetables	5.0
	Cottonseed (whole)	1.0
	Maize cob (kernels)	1.0
	Rice	2.50
	Maize	0.50
	Chillies	5.00
Chlordane (residue to be measured as cis plus trans chlordane)	Food grains	0.02
	Milled food grains	Nil
	Milk and milk products	0.05 (on a fat basis)
	Vegetables	0.2
	Fruits	0.1
	Sugar beet	0.3
	Food grains	0.02
D.D.T. (The limits apply to D.D.T., D.D.D. and D.D.E. singly or in any combination)	Milk and milk products	1.25 (on a fat basis)
	Fruits and vegetables including potato	3.5
	Meat, poultry and fish	7.0 (on a whole product basis)
	Eggs	0.5 (on a shell free basis)
D.D.T. (singly)	Carbonated Water	0.001
D.D.D. (singly)	Carbonated Water	0.001
D.D.E. (singly)	Carbonated Water	0.001

*also refer to Appendix A & B (Page: 20 – 27)*

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Diazinon	Foodgrains	0.05
	Milled foodgrains	Nil
	Vegetables	0.5
Dichlorvos (content of di-chloroacetaldehyde (D.C.A.) be reported where possible)	Foodgrains	1.0
	Milled foodgrains	0.25
	Vegetables	0.15
	Fruits	0.1
Dicofol	Fruits and Vegetables	5.0
	Tea (dry manufactured)	5.0
	Chillies	1.0
Dimethoate (residue to be determined as dimethoate and expressed as dimethoate)	Fruits and Vegetables	2.0
	Chillies	0.5
Endosulfan (residues are measured and reported as total of endosulfan A and B and endosulfan-sulphate)	Fruits and Vegetables	2.0
	Cottonseed	0.5
	Cottonseed oil (crude)	0.2
	Bengal gram	0.20
	Pigeon Pea	0.10
	Fish	0.20
	Chillies	1.0
	Cardamom	1.0
Endosulfan A	Carbonated Water	0.001
Endosulfan B	Carbonated Water	0.001
Endosulfan-Sulphate	Carbonated Water	0.001
Fenitrothion	Food grains	0.02
	Milled food grains	0.005
	Milk and Milk Products	0.05 (on a fat basis)
	Fruits	0.5
	Vegetables	0.3
	Meat	0.03
Heptachlor (combined residues of heptachlor and its epoxide to be determined and expressed as Heptachlor)	Food grains	0.01
	Milled food grains	0.002
	Milk and milk products	0.15 (on a fat basis)
	Vegetables	0.05
Hydrogen cyanide	Foodgrains	37.5
	Milled foodgrains	3.0
Hydrogen Phosphide	Food grains	Nil
	Milled food grains	Nil
Hexachlorocycle hexane and its Isomers		

*also refer to Appendix A & B (Page: 20 – 27)*

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Alfa (a) Isomer:	Rice grain unpolished	0.10
	Rice grain polished	0.05
	Milk (whole)	0.02
	Fruits and vegetable	1.00
	Fish	0.25
	Carbonated Water	0.001
(b)Beta (b) Isomer :	Rice grain Unpolished	0.10
	Rice grain polished	0.05
	Milk (whole)	0.02
	Fruits and vegetable	1.00
	Fish	0.25
	Carbonated Water	0.001
Gamma (g) Isomer (Known as Lindane)	Food grains except rice	0.10
	Milled foodgrains	Nil
	Rice grain Unpolished	0.10
	Rice grain polished	0.05
	Milk	0.01 9on whole basis)
	Milk products	0.20
	Milk products (having less than 2 percent fat)	0.20 (on whole basis)
	Fruits and vegetable	1.00
	Fish	0.25
	Eggs	0.10 (On shell free basis)
	Meat and poultry	2.00 (On Whole basis)
	Carbonated Water	0.001
Delta (d) Isomer	Rice grain Unpolished	0.10
	Rice grain Polished	0.05
	Milk (whole)	0.02
	Fruits & vegetables	1.00
	Fish	0.25
	Carbonated Water	0.001
Inorganic bromide (determined and expressed as total bromide from all sources)	Food grains	25.0
	Milled Food grains	25.0
	Fruits	30.0
	Dried fruits	30.0
	Spices	400.00
Malathion (Malathion to be determined and expressed as combined residues of malathion and malaaxon)	Food grains	4.0
	Milled food grains	1.0
	Fruits	4.0
	Vegetables	3.0
	Dried fruits	8.0
	Carbonated Water	0.001
Parathion (Combined residues of parathion and paraoxon to be determined and expressed as parathion)	Fruits and Vegetables	0.5

also refer to Appendix A & B (Page: 20 – 27)

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Parathion methyl (combined residues of parathion methyl and its oxygen analogue to be determined and expressed asparathion methyl)	Fruits	0.2
	Vegetables	1.0
Phosphamidon residues (expressed as the sum of phosphamidon and its desethyl derivative)	Food grains	0.05
	Milled food grains	Nil
	Fruits and Vegetables	0.2
Pyrethrins (sum of pyrethrins I & II and other structurally related insecticide Ingredients of pyrethrum)	Food grains	Nil
	Milled food grains	Nil
	Fruits and Vegetables	1.0
Chlorienvinphos (Residues to be measured as alpha and beta isomers of Chlorienvinphos)	Food grains	0.025
	Milled Food grains	0.006
	Milk and Milk Products	0.2 (fat basis)
	Meat and Poultry	0.2 (carcass fat)
	Vegetables	0.05
	Groundnuts	0.05 (shell free basis)
	Cotton seed	0.05
Chlorobenzilate	Fruits	1.0
	Dry Fruits, Almonds and Walnuts	0.2 (shell free basis)
Chlorpyrifos	Food grains	0.05
	Milled food grains	0.01
	Fruits	0.5
	Potatoes and Onions	0.01
	Cauliflower and Cabbage	0.01
	Other vegetables	0.2
	Meat and Poultry	0.1 (carcass fat)
	Milk and Milk Products	0.01(fat basis)
	Cotton seed	0.05
	Cottonseed oil (crude)	0.025
	Carbonated Water	0.001
2,4D	Food grains	0.01
	Milled food grains	0.003
	Potatoes	0.2
	*Milk and Milk Products	0.05
	*Meat and Poultry	0.05
	Eggs	0.05 (shell free basis)
	Fruits	2.0

*also refer to Appendix A & B (Page: 20 – 27)*

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Ethion (Residues to be determined as ethion and its oxygen analogue and expressed as ethion)	Tea (dry manufactured)	5.0
	Cucumber and Squash	0.5
	Other Vegetables	1.0
	Cotton seed	0.5
	*Milk and Milk Products	0.5 (fat basis)
	*Meat and Poultry	0.2 (carcass Fat basis)
	Eggs	0.2 (shell free basis)
	Food grains	0.025
	Milled food grains	0.006
	Peaches	1.0
	Other fruits	2.0
	Dry fruits	0.1 (shell free basis)
Formothion (Determined as dinethoate and its oxygen Analogue and expressed as dimethoate except in case of citrus fruits where it is to be determined as formothion)	Citrus fruits	0.2
	Other fruits	1.0
	Vegetable	2.0
	Peppers and Tomatoes	1.0
Monocrotophos	Food grains	0.025
	Milled Food grains	0.006
	Citrus fruits	0.2
	Other fruits	1.0
	Carrot, Turnip, Potatoes and Sugar beet	0.05
	Onion and Peas	0.1
	Other Vegetables	0.2
	Cottonseed	0.1
	Cottonseed oil (raw)	0.05
	*Meat and Poultry	0.02
	*Milk and Milk Products	0.02
	Eggs	0.02 (shell free basis)
	Coffee (Raw beans)	0.1
	Chillies	0.2
	Cardamom	0.5
Paraquat Dichloride (Determined as Paraquat cations)	Food grains	0.1
	Milled food grains	0.025
	Potato	0.2
	Other vegetables	0.05
	Cotton seed	0.2
	Cottonseed oil (edible refined)	0.05
	*Milk (whole)	0.01
	Fruits	0.05

also refer to Appendix A & B (Page: 20 – 27)

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Phosalone	Pears	2.0
	Citrus fruits	1.0
	Other fruits	5.0
	Potatoes	0.1
	Other vegetables	1.0
	Rapeseed/Mustard Oil (crude)	0.05
Trichlorfon	Food grains	0.05
	Milled food grains	0.0125
	Sugar beet	0.05
	Fruits and Vegetables	0.1
	Oil seeds	0.1
	Edible Oil (refined)	0.05
	*Meat and Poultry	0.1
	*Milk (whole)	0.05
Thiometon (Residues determined as thiometon its sulfoxide and sulphone expressed as thiometon)	Food grains	0.025
	Milled food grains	0.006
	Fruits	0.5
	Potato, Carrots and Sugar beets	0.05
	Other vegetables	0.5
Acephate	Safflower seed	2.0
	Cotton Seed	2.0
Methamido-phos (A metabolite of Acephate)	Safflower seed	0.1
	Cotton seed	0.1
Aldicarb (sum of Aldicarb its sulphoxide and sulphone, expressed as Aldicarb)	Potato	0.5
	Chewing Tobacco	0.1
Atrazine	Maize	Nil
	Sugarcane	0.25
Carbendazim	Food grains	0.50
	Milled food grains	0.12
	Vegetables	0.50
	Mango	2.00
	Banana (whole)	1.00
	Other fruits	5.00
	Cotton seed	0.10
	Groundnut	0.10
	Sugar beet	0.10
	Dry fruits	0.10
	Eggs	0.10 (shell free basis)
	Meat & Poultry	0.10 (Carcass fat basis)
	Milk & Milk Products	0.10 (fat basis)

*also refer to Appendix A & B (Page: 20 – 27)*

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Benomyl	Food grains	0.50
	Milled food grains	0.12
	Vegetables	0.50
	Mango	2.00
	Banana (whole)	1.00
	Other fruits	5.00
	Cotton seed	0.10
	Groundnut	0.10
	Sugar beet	0.10
	Dry fruits	0.10
	Eggs	0.10 (shell free basis)
	Meat & Poultry	0.10 (carcass fat basis)
	Milk & Milk Products	0.10 (fat basis)
Captan	Fruit & Vegetables	15.00
Carbofuran (sum of carbofuran and 3-hydroxy carbofuran expressed as carbofuran)	Fruit & Vegetables	15.00
	Food grains	0.10
	Milled food grains	0.03
	Fruit & Vegetables	0.10
	Oil seeds	0.10
	Sugarcane	0.10
	Meat & Poultry	0.10 (carcass fat basis)
	Milk & Milk Products	0.05 (fat basis)
Copper Oxychloride (determined as copper)	Fruit	20.00
	Potato	1.00
	Other vegetables	20.00
Cypermethrin (sum of isomers) (fat soluble residue)	Wheat grains	0.05
	Milled wheat grains	0.01
	Brinjal	0.20
	Cabbage	2.00
	Bhindi	0.20
	Oil seeds except groundnut	0.20
	Meat and Poultry	0.20 (carcass fat basis)
	Milk and Milk Products	0.01 (fat basis)
Decamethrin / Deltamethrin	Cotton Seed	0.10
	Food grains	0.50
	Milled Food grains	0.20
	Rice	0.05
Edifenphos	Rice	0.02
	Rice bran	1.00
	Eggs	0.01(shell free basis)
	Meat and poultry	0.02 (carcass fat basis)
	Milk and Milk products	0.01( fat basis)

*also refer to Appendix A & B (Page: 20 – 27)*

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Fenthion (sum of fenthion, its oxygen analogue and their sulphoxides and sulphones expressed as fenthion)	Food grains	0.10
	Milled food grains	0.03
	Onion	0.10
	Potatoes	0.05
	Beans	0.10
	Peas	0.50
	Tomatoes	0.50
	Other vegetables	1.00
	Musk melon	2.00
	Meat and Poultry	2.00 (carcass fat basis)
	Milk and Milk products	0.05 (fat basis)
Fenvalerate (fat soluble residue)	Cauliflower	2.00
	Brinjal	2.00
	Okra	2.00
	Cotton Seed	0.20
	Cotton seed oil	0.10
	Meat and Poultry	1.00 (carcass fat basis)
	Milk and Milk Product	0.01 (fat basis)
Dithiocarbamates (the residue tolerance limit are determined and expressed as mg/CS <sub>2</sub> /kg and refer separately to the residues arising from any or each group of dithiocarbamates)	Food Grains	0.20
	Milled food grains	0.05
	Potatoes	0.10
Dimethyl dithiocarbamates residue resulting from the use of ferbam or ziram)	Tomatoes	3.00
Ethylene bis-dithiocarbamates resulting from the use of mancozeb, maneb or zineb (including zineb derived from nabam plus zinc sulphate)	Cherries	1.00
	Other fruits	3.00
Mancozeb	Chillies	1.0
Phenthoate	Foodgrains	0.05
	Milled foodgrains	0.01
	Oilseeds	0.03
	Edible oils	0.01
	Eggs	0.05 (shell free basis)
	Meat & Poultry	0.05 (carcass fat basis)
	Milk & Milk products	0.01 (fat basis)

*also refer to Appendix A & B (Page: 20 – 27)*



Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Phorate (sum of Phorate, its oxygen analogue and their sulphoxides and sulphones, expressed as phorate)	Foodgrains	0.05
	Milled foodgrains	0.01
	Tomatoes	0.10
	Other vegetables	0.05
	Fruits	0.05
	Oil seeds	0.05
	Edible oils	0.03
	Sugarcane	0.05
	Eggs	0.05 (shell free basis)
	Meat & Poultry	0.05 (carcass fat basis)
	Milk & Milk Products	0.05 (fat basis)
Simazine	Maize	Nil
	Sugarcane	0.25
Pirimiphos-methyl	Rice	0.50
	Food grains except Rice	5.00
	Milled food grains except rice	1.00
	Eggs	0.05 (shell free basis)
	Meat & Poultry	0.05 (carcass fat basis)
	Milk & Milk Products	0.05 (fat basis)
Alachlor	Cotton Seed	0.05
	Groundnut	0.05
	Maize	0.10
	Soyabeans	0.10
Alfa Nephthyl Acetic Acid (A.N.A.)	Pine-Apple	0.50
Bitertanol	Wheat	0.05
	Groundnut	0.10
Captafol	Tomato	5.00
Cartaphydrochloride	Rice	0.50
Chlormequatchloride	Grape	1.00
	Cotton Seed	1.00
Chlorothalonil	Groundnut	0.10
	Potato	0.10
Diflubenzuron	Cotton Seed	0.20
Dodine	Apple	5.00
Diuron	Cotton Seed	1.00
	Banana	0.10
	Maize	0.50
	Citrus (Sweet Orange)	1.00
	Grapes	1.00
Ethephon	Pine Apple	2.00
	Coffee	0.10
	Tomato	2.00
	Mango	2.00

also refer to Appendix A & B (Page: 20 – 27)

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Fluchloralin	Cotton Seed	0.05
	Soya Beans	0.05
Malic Hydrazide	Onion	15.00
	Potato	50.00
Metalyxyl	Bajra	0.05
	Maize	0.05
	Sorghum	0.05
Methomyl	Cotton Seed	0.10
Methyl Chloro-phenoxy- acetic Acid(M.C.P.A.)	Rice	0.05
	Wheat	0.05
Oxadiazon	Rice	0.03
Oxydemeton methyl	Food-grains	0.02
Permethrin	Cucumber	0.50
	Cotton Seed	0.50
	Soya Beans	0.05
	Sunflower Seed	1.00
Quinolphos	Rice	0.01
	Pigeon pea	0.01
	Cardamom	0.01
	Tea	0.01
	Fish	0.01
	Chillies	0.2
Thiophenatemethyl	Apple	5.00
	Papaya	7.00
Profenofos	Cotton seed oil	0.05
Fenpropathrin	Cotton seed oil	0.05
<a href="http://parliamentofindia.nic.in/ls/jpc/chapter1.pdf">http://parliamentofindia.nic.in/ls/jpc/chapter1.pdf</a>		
Fenarimol	Apple	5.0
Hexaconazole	Apple	0.1
Iprodione	Rape seed	0.5
	Mustard seed	0.5
	Rice	10.0
	Tomato	5.0
	Grapes	10.0
Tridemorph	Wheat	0.1
	Grapes	0.5
	Mango	0.05
Penconazole	Grapes	0.2
Propiconazole	Wheat	0.05
Myclobutanil	Groundnut seed	0.1
	Grapes	1.0
Sulfosulfuron	Wheat	0.02
Trifluralin	Wheat	0.05

*also refer to Appendix A & B (Page: 20 – 27)*

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Ethoxysulfuron	Rice	0.01
Metolachlor	Soyabean Oil	0.05
Glyphosphate	Tea	1.0
Oxyfluorfen	Rice	0.05
	Groundnut Oil	0.05
Carbosulfan	Rice	0.2
Tricyclazole	Rice	0.02
Imidacloprid	Cotton seed Oil	0.05
	Rice	0.05
Butachlor	Rice	0.05
Chlorimuron-ethyl	Wheat	0.05
Diclofop-methyl	Wheat	0.1
Metribuzin	Soyabean Oil	0.1
Lambdacyhalothrin	Cotton seed Oil	0.05
Fenazaquin	Tea	3.0
Pendimethalin	Wheat	0.05
	Rice	0.05
	Soyabean Oil	0.05
	Cotton seed Oil	0.05
Pretilachlor	Rice	0.05
Fluvalinate	Cotton seed Oil	0.05
Metasulfuron-methyl	Wheat	0.1
Methabenzthiazuron	Wheat	0.5
Imazethapyr	Soyabean oil	0.1
	Groundnut oil	0.1
Cyhalofop-butyl	Rice	0.5
Triallate	Wheat	0.05
Spinosad	Cotton seed oil	0.02
	Cabbage	0.02
	Cauliflower	0.02
Thiamethoxam	Rice	0.02
Fenobucarb	Rice	0.01
Thiodicarb	Cotton seed oil	0.02
Anilophos	Rice	0.1
Fenoxyprop-p-ethyl	Wheat	0.02
	Soyabean seed	0.02
Glufosinate-ammonium	Tea	0.01
Clodinafop-propanyl	Wheat	0.1
Dithianon	Apple	0.1
Kitazin	Rice	0.2
Isoprothiolane	Rice	0.1
Acetamiprid	Cotton seed oil	0.1
Cymoxanil	Grapes	0.1
Triadimefon	Wheat	0.5
	Pea	0.1
	Grapes	2.0

also refer to Appendix A & B (Page: 20 – 27)

Name of Insecticide	Type of food	Tolerance limit mg/kg.ppm)
Fosetyl-A1	Grapes	10
	Cardamom	0.2
Isoproturon	Wheat	0.1
Propargite	Tea	10.0
Difenoconazole	Apple	0.01
b-Cyfluthrin	Cotton seed	0.02
Ethofenprox	Rice	0.01
Bifenthrin	Cotton seed	0.05
Benfuracarb	Red Gram	0.05
	Rice	0.05
Quizalofop-ethyl	Soyabean seed	0.05
Flufenacet	Rice	0.05
Buprofezin	Rice	0.05
Dimethomorph	Grapes	0.05
	Potatoes	0.05
Chlorfenopry	Cabbage	0.05
Indoxacarb	Cotton seed	0.1
	Cottonseed oil	0.1
	Cabbage	0.1
Metiram	Tomato	5.0
	Ground nut seed	0.1
	Ground nut seed oil	0.1
Lufenuron	Cabbage	0.3
Carpropamid	Rice	1.0
Novaluron	Cottonseed	0.01
	Cottonseed oil	0.01
	Tomato	0.01
	Cabbage	0.01
Oxadiazyl	Rice	0.1
Clomazone	Rice	0.01
	Soyabean seed	0.01
	Soyabean seed oil	0.01
Tebuconazole	Wheat	0.05
Propineb	Apple	1.0
	Pomegranate	0.5
	Potato	0.5
	Green Chillies	2.0
	Grapes	0.5
Thiochlorprid	Cotton seed	0.05
	Cotton seed oil	0.05
	Rice	0.01

*also refer to Appendix A & B (Page: 20 – 27)*

## 2.1 METAL CONTAMINANTS

### 2.1.1

Name of the metal contaminant	Article of food	Parts per Million by weight
2. Copper	Turmeric whole and powder	5.0

**Recommendation:** Several results have shown that the normal range of copper contaminant is more than 10ppm. It may also be noted that in this chapter the other spices are not mentioned. The industries is of the opinion that copper contaminant standards be revised and cue be taken from EU regulations on this.

*also refer to Appendix A & B (Page: 20 – 27)*

## APPENDIX A

Summary of reasons to be cross verified with links provided in Appendix B including JPC reports

- a) ADI or TMDI logic is not well explained in the concept note of FSSAI in arriving at these MRL's.
- b) The CIBRC itself is extremely short of data updation on this.
- c) The Insecticide as banned certain chemicals which are supposedly manufactured for use by the directorate of public health for preventing some other disease. For eg:DDT etc.
- d) Even a pesticide stopped from application will have the residual effects for atleast two to three years in various farm produce.

We are shocked and it is out of control of FBOs. Even Government has failed to control such residue from interfering with product quality in Agri produce by ensuring that water and soil are safe.

- e) Government has no published data which is comprehensive either by alphabetical orders of chemicals or by order of food categories where it has shared information to farmers on application per hectare in specific climatic conditions and expected residue in farm produce.
- f) Certain crops are rotational/ seasonal like chilly for tobacco or cotton.

It is real time experience and a known farm management principle that pesticide residue in such crops are high. A processor has tonnes of material in trucks landing from various farm yards. Government procurement centers are yet to publish a detail of residues in crops of this special kind.

- g) We have no specified data on what kind of recommendations were given for wide varying climatic conditions of our country.
- h) As per records of CGWP and CPHHEO various underground water tested by Government agencies have huge variation from standard on pesticide residue.
- i) The whole chain of pesticide selling ,distribution and usage is so uncontrolled that the pesticide poisoning related deaths are nearly about 2 Lakhs in this country.
- j) It is ironical that the Government is ambitiously trying to prescribe something to FBO who is as helpless as the consumer when no attempt has been made to educate, control and analyse the use and disuse of the pesticide with farming community.
- k) We have data only on crop production pesticide consumption state wise. We have nothing to derive from this data to make a decision as per FSSAI requirements.
- l) We are also surprised as to why NOAEL , ADI or TMDI value based logic have not been explained in the framing of FSSAI and we are not able to comprehend the backward linkages on science based reasoning for tolerance limits prescribed to us.
- m) We would also like to point out that samples lifted from different NGOs and other labs from Government food depots have failed for FSSAI prescribed limits.

## Appendix B

### **Pest Government Notice. Pdf**

### **Pesticides Residues Regulation CSA. Pdf**

<http://parliamentofindia.nic.in/ls/jpc/chapter1.pdf>  
<http://parliamentofindia.nic.in/ls/jpc/chapter2.pdf>  
<http://parliamentofindia.nic.in/ls/jpc/chapter3.pdf>  
<http://parliamentofindia.nic.in/ls/jpc/chapter4.pdf>  
<http://www.financialexpress.com/news/jpc-vs-pac/717771/0>  
<http://articles.economictimes.indiatimes.com/keyword/pesticide-residues>  
<http://articles.economictimes.indiatimes.com/keyword/pesticide-residues/recent/3>  
<http://www.indiatogether.org/2004/mar/agr-organic.htm>  
<http://www.business-standard.com/india/news/jpc-final-report-confirms-pesticide-residues-in-colas-/144772/>  
<http://www.rediff.com/money/2004/feb/04cola1.htm>  
<http://www.thehindubusinessline.in/2003/10/09/stories/2003100902120400.htm>  
<http://www.thehindubusinessline.in/2004/02/05/stories/2004020503230100.htm>  
<http://cseindia.org/node/527>  
[http://cgwb.gov.in/District\\_Profile/TamilNadu/Dharmapuri.pdf](http://cgwb.gov.in/District_Profile/TamilNadu/Dharmapuri.pdf)  
[http://cgwb.gov.in/District\\_Profile/UP/Moradabad.pdf](http://cgwb.gov.in/District_Profile/UP/Moradabad.pdf)  
<http://www.hydrology-project.gov.in/%5Cdownload%5Cmanuals%5CWaterQuality%5CTechnicalPapers%5CWQMonitoringsystemforprotectingNWR.pdf>  
<http://www.ecocities-india.org/Dnload/Kottayam/indicators%20report-Mundar.pdf>  
[http://cgwb.gov.in/District\\_Profile/UP/Kanpur%20Nagar.pdf](http://cgwb.gov.in/District_Profile/UP/Kanpur%20Nagar.pdf)  
[http://cgwb.gov.in/District\\_Profile/UP/Ghaziabad.pdf](http://cgwb.gov.in/District_Profile/UP/Ghaziabad.pdf)  
<http://cgwbwr.kar.nic.in/about%20us.htm>  
<http://cgwb.gov.in/documents/gec97.pdf>  
<http://www.indiaenvironmentportal.org.in/files/Baseworkingpaper.pdf>  
[http://www.fssai.gov.in/Portals/0/Pdf/sample\\_analysed\(02-01-2012\).pdf](http://www.fssai.gov.in/Portals/0/Pdf/sample_analysed(02-01-2012).pdf)  
<http://www.economics.ox.ac.uk/members/marcel.fafchamps/homepage/supplychain.pdf>  
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[ftp://ftp.fao.org/codex/alinorm10/al33\\_23e.pdf](ftp://ftp.fao.org/codex/alinorm10/al33_23e.pdf)  
[http://fssai.gov.in/Portals/0/Pdf/Food%20Safety%20and%20standards%20\(Packaging%20and%20Labelling\)%20regulation,%202011.pdf](http://fssai.gov.in/Portals/0/Pdf/Food%20Safety%20and%20standards%20(Packaging%20and%20Labelling)%20regulation,%202011.pdf)  
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<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2984095/>

<http://www.indiaenvironmentportal.org.in/files/file/MPRNL.pdf>

<http://upgovfi.orgfree.com/Pepsi%20Vs%20UP%20St.pdf>

## ADDITIVES

### APPENDIX A: LIST OF FOOD ADDITIVES

Use of food additives in food products: Food products may contain additives as specified in the regulation and in the following tables.

Table 2

List of food additives for use in foods

S. no	Additives	Rice and Pulses based Papads
C. Preservatives		
1	Sorbic acid and its sodium, potassium and calcium salts (calculated) as sorbic acids	0.1% max

**Recommendation:** Papad cannot be manufactured without sodium bicarbonate as it is essential for it to expand. In the entire Indian papad industry not even a drop of sorbic acid is used for manufacturing papad. We request that sodium bicarbonate be allowed to be used in the manufacture of papads, vathal, fryums and similar other pulse or rice based products by whatever name they are identified.

<http://220.227.138.214:8080/dspace/bitstream/123456789/722/1/Kizhakkayila+and+Sasikumara.pdf>

[http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20\(Food%20product%20standards%20and%20Food%20Additives\)%20regulation,%202011.pdf](http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20(Food%20product%20standards%20and%20Food%20Additives)%20regulation,%202011.pdf)

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[http://www.codexalimentarius.net/web/standard\\_list.jsp](http://www.codexalimentarius.net/web/standard_list.jsp)

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[http://www.codexalimentarius.net/pestres/data/MRLs\\_Spices\\_e.pdf](http://www.codexalimentarius.net/pestres/data/MRLs_Spices_e.pdf)

<http://www.naturalproductsinsider.com/articles/2008/09/food-additive-or-gras.aspx>

also refer Appendix C (Page: 32)

## GUR JAGGERY

Table 12

### List of food additives for use in sugars and salt

Name of the food additive	Refined sugar	Sugar Icing/ Powdered sugar	Dextrose syrup	Glucose syrup	Dried glucose	Edible common salt/iodized salt/in fortified common salt	Misri, GUR JAGGERY, plantation white sugar cube sugar golden syrup	Khandsari sugar (sulphur sugar), Bura sugar	Khandsari sugar (desi)
Sulphur dioxide							70ppm max		

### LAB RESULT

Nature of test	Sample I	Sample II	Sample III	Sample IV	As per PFA & FSS act
Sulphur Dioxide	148ppm**	64ppm**	187ppm**	230ppm**	MAX 70ppm

\*\* Sample I, III, IV failed in respect of the sulphur dioxide test

Sulphur dioxide test is an indicator of preservatives added during the process of making jaggery.

**Recommendation:** Jaggery is manufactured in unorganized rural industries. More than 80% of jaggery contain well above 120 – 130ppm of sulphur dioxide. We pray that GMP may be prescribed for this. A slow educative process may achieve more realistic standards.

<http://220.227.138.214:8080/dspace/bitstream/123456789/722/1/Kizhakkayila+and+Sasikumar a.pdf>

[http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20\(Food%20product%20standards%20and%20Food%20Additives\)%20regulation,%202011.pdf](http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20(Food%20product%20standards%20and%20Food%20Additives)%20regulation,%202011.pdf)

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<http://www.naturalproductsinsider.com/articles/2008/09/food-additive-or-gras.aspx>

*also refer Appendix C (Page: 32)*

## OLEORESIN

In the heavy metal 2.1, oleoresin is not even mentioned. The food industry uses oleoresins already and India is a world renowned exporter of this product. Heavy metal contaminant like arsenic, cadmium, lead, Mercury and Zinc which are mentioned for raw spice powder like turmeric powder should also be mentioned for oleoresins because there is always a folding effect when a spice becomes a powder and a very high folding effect when a spice becomes oleoresin. Due to quantity reduction, concentration becomes high and these contaminants may also be in significant number. The industry has to be consulted on this with practical inputs from lab results.

<http://220.227.138.214:8080/dspace/bitstream/123456789/722/1/Kizhakkayila+and+Sasikumara.pdf>

[http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20\(Food%20product%20standards%20and%20Food%20Additives\)%20regulation,%202011.pdf](http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20(Food%20product%20standards%20and%20Food%20Additives)%20regulation,%202011.pdf)

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*also refer Appendix C (Page: 32)*

### 3.1.10 FLAVOURING AGENTS AND RELATED SUBSTANCES

The extracts of natural products may be exempted from the broad definition of food additives. The precedent that we wish to state is from the EU norms of food additives. The norms under which the spice oleoresins and extracts are treated in EU are as follows.

- a. "food additive" shall mean any substance not normally consumed as a food in itself and not normally used as a characteristic ingredient of food, whether or not it has nutritive value, the intentional addition of which to food for a technological purpose in the manufacture, processing, preparation, treatment, packaging, transport or storage of such food result, in it or its by-products becoming directly or indirectly a component of such foods.

*The following are not considered to be food additives.*

- i. Monosaccharides, disaccharide or oligosaccharides and foods containing these substances used for their sweetening properties.
- ii. Foods, whether dried or in concentrated form, including flavourings incorporated during the manufacturing of compound foods, because of their aromatic, sapid or nutritive properties together with a secondary coloring effect.

In case of the FSSAI, there is a confusion as these products are considered as natural flavouring material but not specifically mentioned in the product usage. It is requested to mention these products or else specifically suggest the usage in the final product.

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[http://practicalaction.org/docs/technical\\_information\\_service/sugar\\_production\\_from\\_cane.pdf](http://practicalaction.org/docs/technical_information_service/sugar_production_from_cane.pdf)

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<http://www.naturalproductsinsider.com/articles/2008/09/food-additive-or-gras.aspx>

*also refer Appendix B (Page: 21 – 24)*

## **2.1.7 FROZEN DESSERT (READ WITH APPENDIX A TABLE 14, AND APPENDIX B)**

**Recommendation:** We accept Appendix B microbiological criteria for this product. Frozen dessert is a recipe based combination. Hence freedom must be given in choosing additives and many fruit based frozen desserts will not have even 2.5% fat in the final product though milk or fresh cream of a very high percentage fat have been used in the preparation of the same. We request frozen dessert standards be refined as under GRAS/GMP.

<http://220.227.138.214:8080/dspace/bitstream/123456789/722/1/Kizhakkayila+and+Sasikumar+a.pdf>

[http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20\(Food%20product%20standards%20and%20Food%20Additives\)%20regulation,%202011.pdf](http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20(Food%20product%20standards%20and%20Food%20Additives)%20regulation,%202011.pdf)

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*also refer Appendix C (Page: 32)*

### 3.1.5 ANTIOXIDANTS

**Recommendation:** The antioxidant definition is not comprehensive. Restriction of antioxidants through the standard as specified in subsection 2 of 3.1.5 is not very appreciative. FSSAI must acknowledge that continuous research by food industry and various natural antioxidants and new bioactive molecules based antioxidants having been successfully found such restriction prohibits or constrains food research from growing. We request the concept of GRAS document to be submitted and an exclusive fast track science swing on such specific areas be created with industry support for approving the same. It is recommended as of now to kindly permit all natural antioxidants for use unless scientifically established as harmful.

<http://220.227.138.214:8080/dspace/bitstream/123456789/722/1/Kizhakkayila+and+Sasikumara.pdf>

[http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20\(Food%20product%20standards%20and%20Food%20Additives\)%20regulation,%202011.pdf](http://fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20standards%20(Food%20product%20standards%20and%20Food%20Additives)%20regulation,%202011.pdf)

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<http://www.naturalproductsinsider.com/articles/2008/09/food-additive-or-gras.aspx>

*also refer Appendix C (Page: 32)*

## Appendix C

Many Additives are multifunctional as per our practical experience. We do not expect FSSAI to restrict our freedom on usage of these by mentioning specific use. It is a curtailment on our research and innovation.

Traditional uses of certain additives have been neglected , many items where additives are used have not been categorized in your standards.

We pray for a negative list of additives with some reasoning reference and provide us with guidelines like GRAS/GMP.

We are unable to understand FSSAI non-recognition of natural product derivatives, use of natural antioxidants and bioactive molecule based innovative products.

We do pray that a more frequent time table to review standard and a fast track cell be created to register the use of new additives.

We are grossly disappointed that a self regulatory, transparent law is trying to dictate process terms to us.

We expect the Government to completely revise additives standards based on interaction with real time users.

## PHYSICAL AND CHEMICAL PROPERTIES

### 2.1.4 DAHI OR CURD

1. Dahi or curd means the product obtained from pasteurized or boiled milk by souring, natural or otherwise, by a harmless lactic acid culture or other harmless bacterial culture may also be used in conjugation with lactic acid bacteria cultures for souring. Dahi may contain added cane sugar. Dahi shall have the same minimum percentage of milk fat and milk solids-not-fat as the milk from which it is prepared.

Where dahi or curd is sold or offered for sale without any indication of class of milk, the standards prescribed for dahi prepared from buffalo milk shall apply.

Milk solids may also be used in preparation of this product.

**Recommendations:** The definition in the standard doesn't differentiate properly between constituted dahi sold in branded packed form with shelf life of seven or more days and dahi sold or served by eateries/catering houses/hotels and restaurants more as part of meal or as accompaniment. The FSSAI must appreciate that food establishments adopt natural fermentation process for preparing dahi. Our samples have shown fat as a percentage far less due to microbial action which enables fermentation. Hence for dahi served in eateries a GRAS/GMP approach may be prescribed.

[http://www.codexalimentarius.net/pestres/data/MRLs\\_Spices\\_e.pdf](http://www.codexalimentarius.net/pestres/data/MRLs_Spices_e.pdf)

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**also refer Appendix D (Page: 43)**

## 2.9.8 CUMIN (JEERA, KALONJI)

1. Cumin (Safed Zeera) whole means the dried mature fruits of *Cuminum cyminum* L. It shall have characteristic aromatic flavor free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colour and harmful substances.

***It shall confirm to the following standards :-***

1. Extraneous matter	Not more than 3.0 percent by weight
2. Broken fruits (Damaged, shriveled, discoloured and immature seed)	Not more than 5.0 percent by weight
3. Moisture	Not more than 10.0 percent by weight
4. Total ash on dry basis	Not more than 9.5 percent by weight
5. Ash insoluble in HCl on dry basis	Not more than 3.0 percent by weight
6. NON VOLATILE ETHER EXTRACT ON DRY BASIS	NOT MORE THAN 15.0 PERCENT BY WEIGHT
7. Volatile oil content on dry basis	Not less than 1.5 percent by v/w
8. Proportion of edible seeds other than cumin seeds	Absent
9. Insect damage matter	Not more than 1.0 percent by weight

### THE REALITY AND SOME SAMPLES OF LAB RESULTS

Nature of tests	Sample I	Sample II	Sample III	As per PFA & FSS Act
Moisture	6.29%	6.82%	6.70%	MAX 10%
Total Ash	7.44%	6.95%	7.50%	MAX 9.5%
Ash insoluble in acid	0.61%	0.57%	0.42%	MAX 3%
Extraneous matter	0.18%	1.12%	0.60%	MAX 3%
Insect damaged	0.22%	0.44%	0.22%	MAX 1%
broken fruits	0.50%	0.40%	0.20%	MAX 5%
Non volatile ether extract	8.90%**	9.90%**	9.10%**	MIN 15%
Other edible seeds	Absent	Absent	Absent	ABSENT

\*\* All the three samples failed in respect of the non – volatile ether extract test.

Due to the change in soil conditions and climatic conditions the non volatile oil content test which expresses the aroma, oil content of cumin has gone down.

**Recommendation:** We request that cumin seed may be taken as an example for all food grains falling under 2.4 Cereal and Cereal Products 2.4.1, 2.4.2, 2.4.3, 2.4.4, 2.4.5 and 2.4.6 food grains. There is sufficient proof through government labs, industry federation sample reports, spice board results that the standard may be updated more based on reality of produce available in this country after due discussion with farmers, primary processors and other industry stake holders.

[http://www.codexalimentarius.net/pestres/data/MRLs\\_Spices\\_e.pdf](http://www.codexalimentarius.net/pestres/data/MRLs_Spices_e.pdf)

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*also refer Appendix D (Page: 43)*

## 2.9.11 GINGER (SONTH, ADRAK)

1. Ginger (Sonth, Adrak) whole means the dried rhizome of *Zingiber officinale* Roscoe in pieces irregular in shape and size, pale brown in colour with peel not entirely removed and washed and dried in sun. It may be bleached with lime. It shall have characteristic taste and

climatic conditions in different states of this country. FBO's cannot understand how a 97.9% sucrose is substandard or unsafe and 98% sucrose is good for health.

[http://www.codexalimentarius.net/pestres/data/MRLs\\_Spices\\_e.pdf](http://www.codexalimentarius.net/pestres/data/MRLs_Spices_e.pdf)

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## **Appendix D**

The climatic conditions have changed so much that many standards published as 2011 standards by FSSAI are unreal. The moisture content, fiber content and volatile oil content have all changed.

There is very little concrete and comprehensive data on all this in any Government publication. Sample research papers here and there do indicate that said standards are not possible.

We in the industry constantly try to match customer expectations and our own lab findings discover that the standards are not reached from the raw materials we receive.

Surprisingly the seat of cultivation of special farm produce like cumins from Gujarat, chilly from Andhra, pepper from Kerala, ginger or turmeric from Erode even fail for standards as mentioned in FSSAI.

These are the results for the past few years and a new act should have consulted the real producers or the real users.

It is for the above mentioned reasons that we feel local State Advisory Committee becomes more relevant.

