Surveillance and regulation.

The prevalence of betel-quid/ areca nut use in the population, estimate of number of users, prevalence in association with smokeless tobacco use, in association with smoking, exclusive use of betel quid/ areca nut, vulnerable groups of high prevalence etc.

> Prakash C. Gupta

> Dhirendra Sinha

Areca Nut is a Food Substance. Oral Cancer and Submucus Fibrosis is therefore a food borne disease in areca nut chewers! Hence, cases of OSF from betel quid in NYC should be reported to FDA via this site... the CDC eventually picks up the data. > Pankaj Chaturvedi

We have a common concern to mitigate disease and suffering from areca nut food products and this forum is a powerful effort.

In October 2010 the New York State Department of Agriculture – Division of Food Safety and Inspection (NY AG), began to seize and destroy areca nut (AN) food products (with and without tobacco) sold in Burmese food stores in Syracuse NY.

Store owners demonstrate signs of Oral Sub mucous Fibrosis (OSF). Our authority was informed by Dr. Alexander Kerr and his study of AN use among Gujarati residents in NY City. Second, by Dr. Prakash Gupta and his team at WHO - empirically determining that both AN and BQ are both Group 1 Carcinogens. And third, Dr. Pankaj Chaturvedi, his technical support and advocacy advice fighting AN diseases.

AN is generally labeled or represented as food and therefore determined "adulterated food" and subject to seizure and destruction in the US. Unfortunately, "AN food culture" is shrouded in mystery for Westerners.

> Allen Mozek

The increasing demand of areca nut demonstrates that current control policies of gutka/ pan masala are not having much effect.

Demand from Paan Masala makers raises Areca prices https://www.pressreader.com/india/economic-times/20170302/282127816259694

By. Krishnakumar.PK

Kochi: Arecanut prices are firming up again after taking a hit post demonetisation, thanks to an increase in the minimum import price and a revival in demand from pan masala makers. With curbs on cash withdrawals from early November, pan masala sales had declined in the major consuming regions of Gujarat and UP, pulling down the prices of arecanut, the main ingredient in the product. Prices fell 714% for different varieties from the predemonetisation levels, as major buyers reduced purchase of arecanut. "Areca nut prices have since increased by over 10% with sales of pan masala picking up.

The hike in minimum import price from .₹ 162 to .₹ 251 per kg has also contributed to the price rise," said M Suresh Bhandary, MD, Central Arecanut and Cocoa Marketing &

Processing Cooperative . The prices currently range from .₹ 220 per kg for the white variety to .₹ 290 for the red one. A month ago, the government increased minimum import price, heeding to demand from growers who complained about growing imports from Lanka and Bangladesh. Rise in prices of arecanut with pan masala sales picking up. >Pankaj Chaturvedi

Food safety has dominated the concerns of politicians as well as the public in recent years here in Taiwan, and probably elsewhere. The merchant who sold mixed gutter oil with olive oil has been put in jail. Last month, a trace of dioxin was found in eggs tested, and 600 million eggs were then destroyed. Incidentally, dioxin is a weak human carcinogen at best, and will take years or decades of exposure to have any effect. Food from East Japan coming from radiation-concerned areas is banned from imports. US pork fed with Ractopamine, a food additive to promote leanness widely used and consumed in the US, was also banned from importing. Hardly anyone has died from food safety. In contrast, BQ has never been questioned as a food safety issue, with thousands getting oral cancer every year, and, along with smoking, tens of thousands died prematurely here in this island. This is elephant in the living room, but we cared more about the infertility of the fleas. How can we get the public become interested? Somehow, we need to make BQ a sexy, mysterious or motivating issue. The public seemed to be showing a sign of fatigue toward these old, familiar issues, but could easily get excited about new, unfamiliar but low or negligible health issues. Smoking gets a lot more publicity than BQ for political reasons. BO is an orphan. Media is not interested in whether BO or AN is sufficiently carcinogenic, even though they have been well proven. An argument against this by opponents pointed to the nature of BQ as a voluntary action but egg consumption involuntary.

Science we acquired through hard research has not been effectively translated and communicated, a failed responsibility of the intellectuals. >Chi Pang Wen

What about the carcinogenity of AN alone, as consumed/chewed in Taiwan, where I believe your epi studies have shown it a proven causal agent for oral cancers, in the absence of tobacco, with arecoline the presumptive agent. Some of the discussion in this group seems to have questioned that link. Can you respond, please. >Ellen Gritz

It would be totally unexpected and surprising if BQ alone could not cause oral cancer. The ability of BQ alone without smoking to cause oral cancer (16.9 times) is roughly five times that of smoking without chewing (2.9), when compared to those without either risk. Drinking is a major confounder and should be controlled. >Chi Pang Wen

Dr. Wen,

The elephant in the room is culture... making BQ a sexy issue ain't gonna do it... Pankaj is correct – food regulations simply need to be enforced...

Globalization will eventually do it painfully slow... the young are disgusted with spitting red saliva and red gums and black teeth... after being exposed to other cultures... In regards to "food fraud", and that's what you describe below ... this is primarily a culture issue from South East Asia... we have plenty of examples:

1. Melamine in milk

2. Industrial dyes in food including AN (red and yellow colored AN have toxic food coloring)

3. Petroleum laden pepper

Food Fraud = intentional adulteration for economic gain

I think exposes of how this product is manufactured is needed to reveal the toxic dyes... this might be "sexy"... one dye happens to be a group one IARC occupational carcinogen.

Conventional food safety investigation would address the manufacturing of AN and not the retailers... has anyone done this yet??? >Allen Mozak

Chewers in Taiwan consumed more BQ in weight than the average amount of rice consumed by an average person in Taiwan from <cwengood@nhri.org.tw

Now that is an impressive statistic! (And, very unfortunate.)

It was in one of my publications. The reason is simple. The rice consumption has been declining in the last three decades, but the fixed amount of 15-20 BQ a day persisted, either as a split areca nut sandwiched with betel flower spiced with red lime or whole areca fruit wrapped with betel leaves spread with white lime, would weigh as much as or more than 2 bowls of cooked rice. These are the two most popular forms of BQ. These BQs were spit out after chewing, however. These chewing would then be alternated with smoking 15-20 cigarettes a day, making combined offensive assaults, including strong alkali from lime and burning from cigarettes, to oral cavity 30-40 times a day, 365 days a year. Most chewers here are heavier smokers than nonchewing smokers.

Dr. Wengood,

What percent of adult population chews BQ in Taiwan?

What percent of users develop disease?

It seems that the population would benefit from switching from AN and Tobacco addictions to Coffee addiction...seriously... it seems addiction to some alkaloid is part of the work culture...

This is the culture with Betel Nut Girls??

>Allen Mozak

The US Food Safety Modernization Act (FSMA) requires third party audits for all imported food... eventually, processed areca nut for import into the US, will have to be inspected by a third party auditor. This will be the moment of truth...

>Allen Mozak

Typical seizure for destruction (see attached) conducted this week. Culturally accepted - a euphoric experience – addiction – disease and suffering... Do they have a 12 step program in South East Asia? Started in the US in 1939 with one man's idea... and now it's a model for addressing addiction in the US... One person can make a difference...

Betel quid aka paan is the only food I can think of that has all three food hazards: chemical (arecoline and other alkaloids), physical (constant irritation causes chronic inflammation – a risk factor for disease and cancer), and biological (salmonella in lime and betel leaves)... plus it's addictive... the perfect storm...

The FDA has promised the Association of Food and Drug Officials (AFDO) to ban betel nuts but has not yet acted... we seize when represented as food and betel quid (all edible ingredients) is represented as conventional food.

Allen