



Why Rice is

ET Rasco Jr

Good for You

Academician, NAST

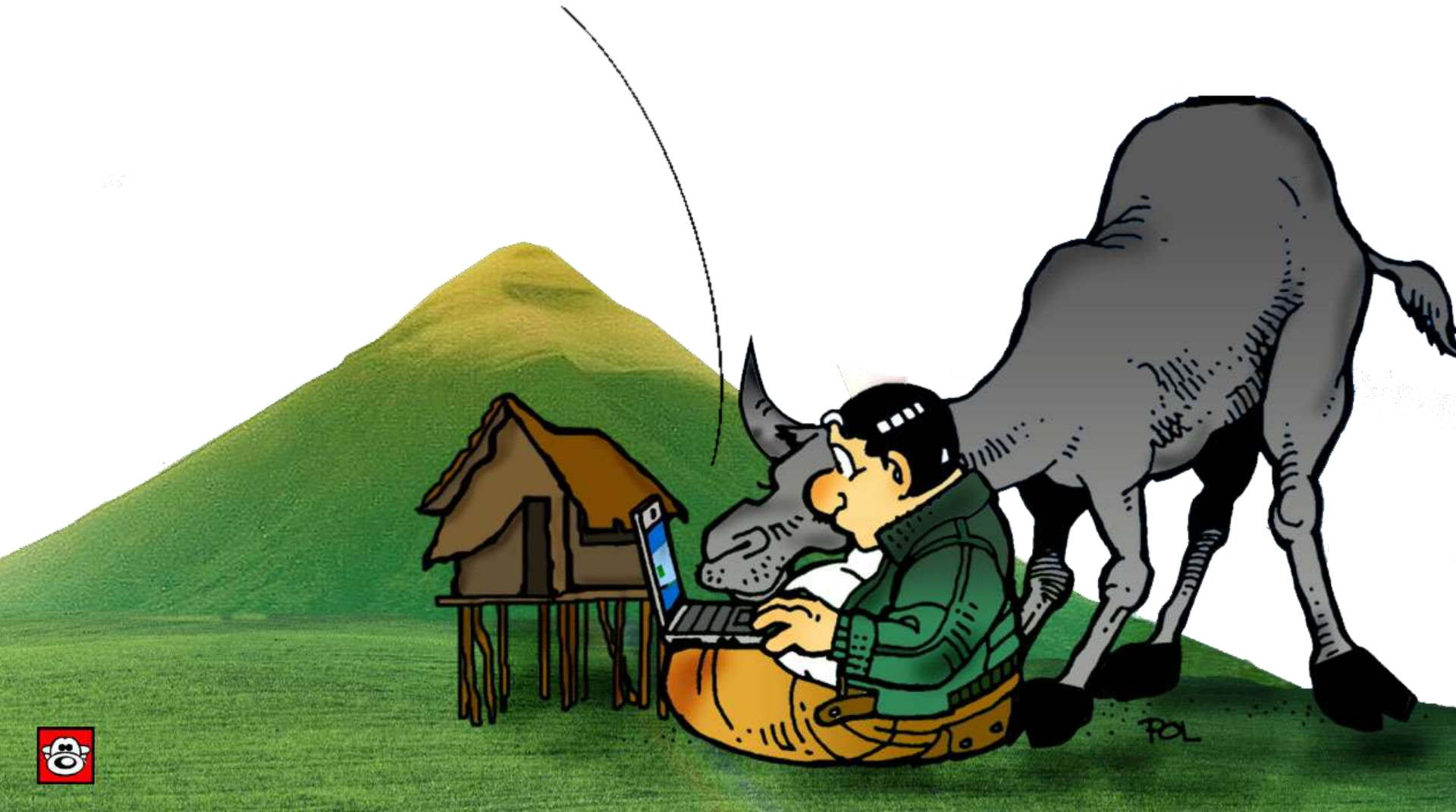
This seminar is Rated PG.

White rice is not good for you.

Too much rice is not good for you.



Monocrop rice is not good for you.

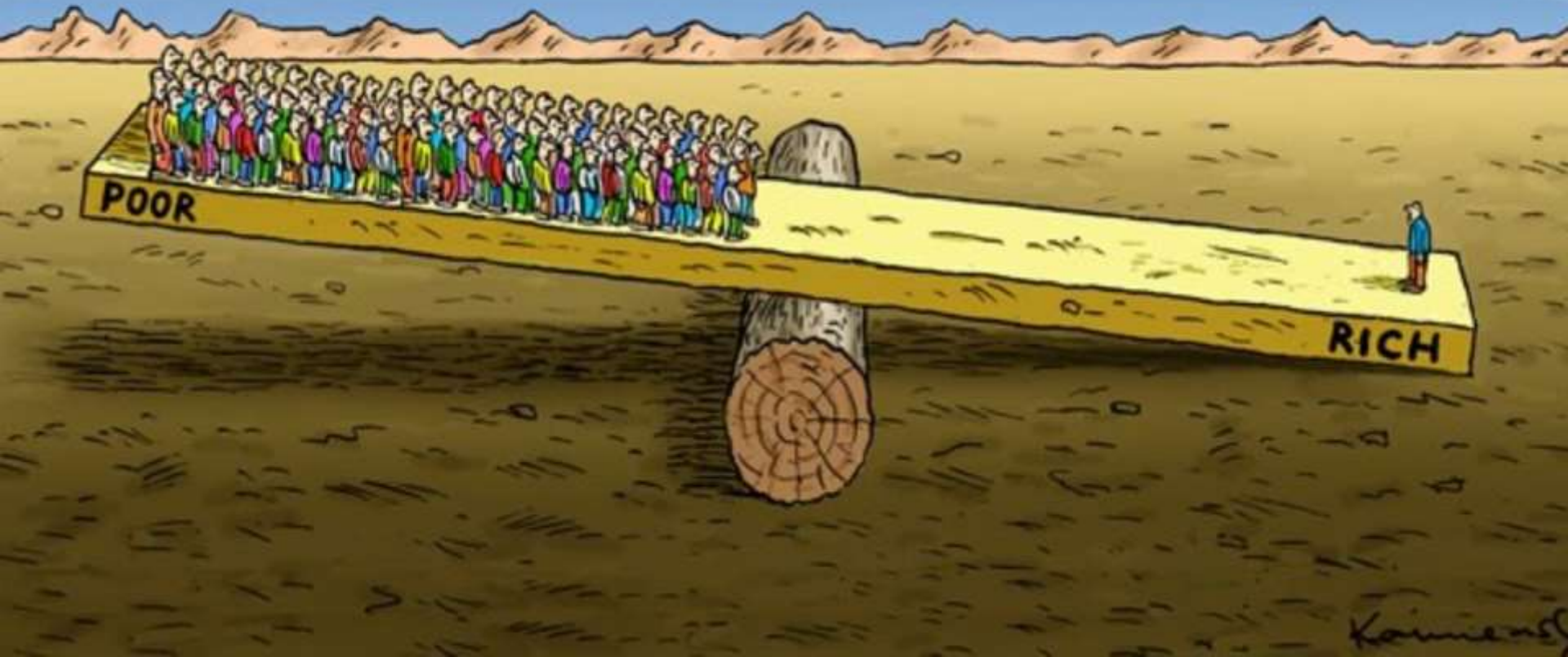


My arguments...

1

NATION

Rice production contributes to
maldistribution of wealth,
other society problems



2

AVERAGE FARMER

Rice farming:
Not a good source of income.
Not good for health.



3

RICE CONSUMERS

Too much rice
can cause health problems



In the final analysis, our choices:

a. **Rice-rice-rice** in the farms and dining tables.

b. New system of food production and consumption.
Diversification is key!



Rice monocrop is poor economics.

Makes average farmer
POOREVER

Higher rice
production cost

Higher consumer rice
prices



Rice production's impact on society is not very favorable



Benefits mainly the few traders and inputs producers





Expensive health care cost for farmers (and consumers)



Rice monocrop is bad for environment.

Wasteful of water

Water required to produce 1
kg of



2,800 L 1,500 L



1,500 L 5,000 L*

*Inbreds yielding 2.5-3mt/ha

Rice monocrop is bad for environment.

Wasteful of water

Poor energy
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Soil and water pollution



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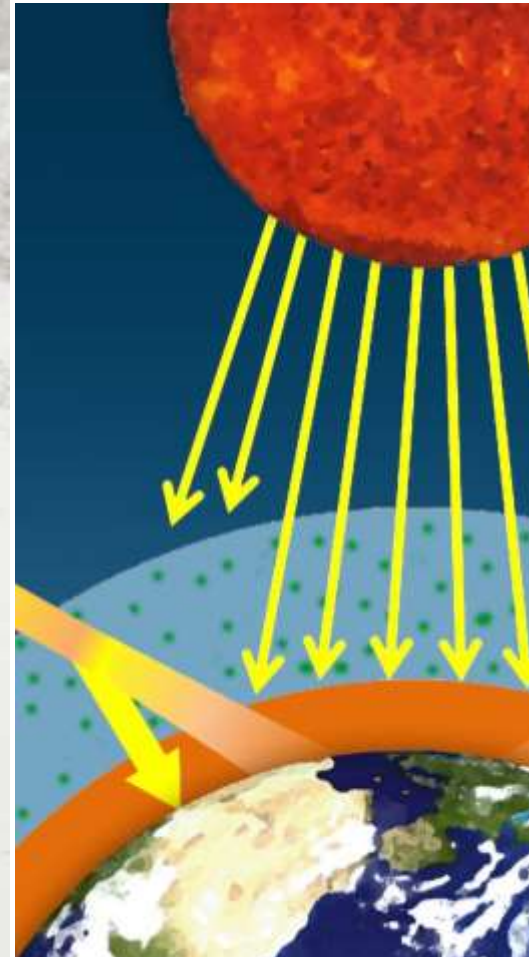
Poor energy balance



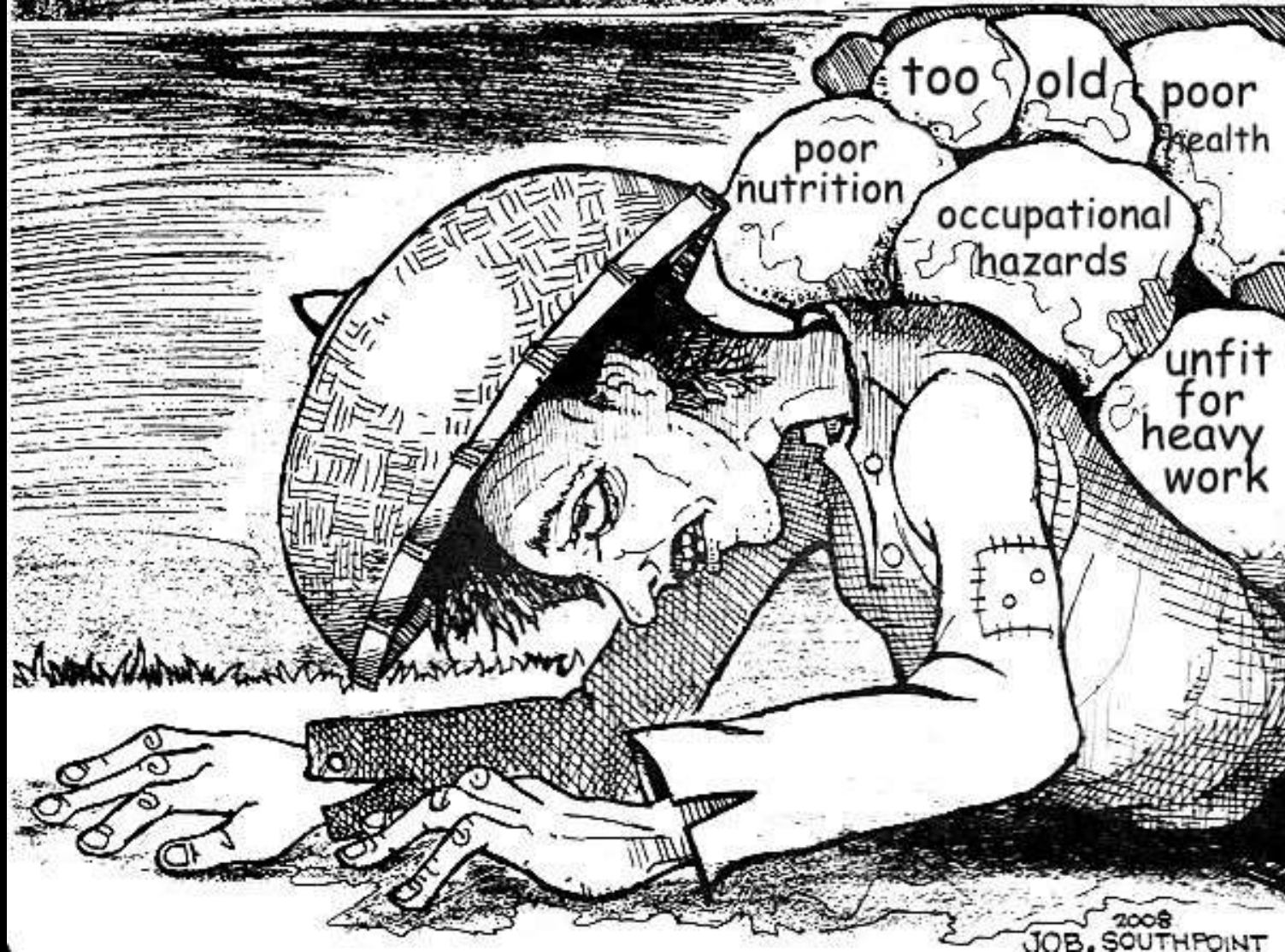
Soil and water pollution



Greenhouse Gas Emissions



Rice monocrop is bad
for farmers' health.



A pregnant woman wearing a red t-shirt and blue jeans is sitting outdoors. Her hand is resting on her belly. The background is a blurred green field and trees. The text "Rice is bad for consumers' health" is overlaid in white on the right side of the image.

Rice is bad for consumers' health

It is linked to diseases of modern civilization: heart failure, hypertension, stroke, arthritis, obesity, osteoporosis, gout, cancer, ulcer, etc.

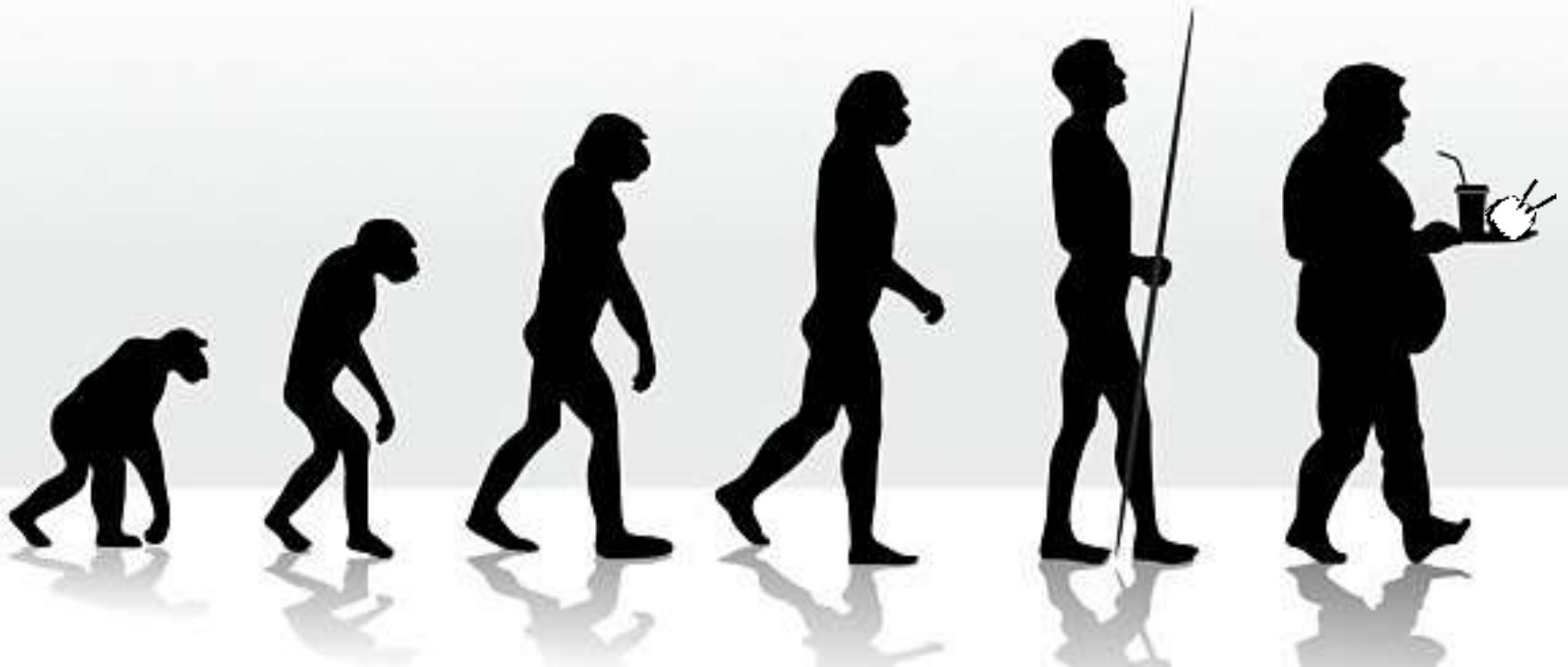
Nature of evidence linking grains (rice) and sugar to diseases I

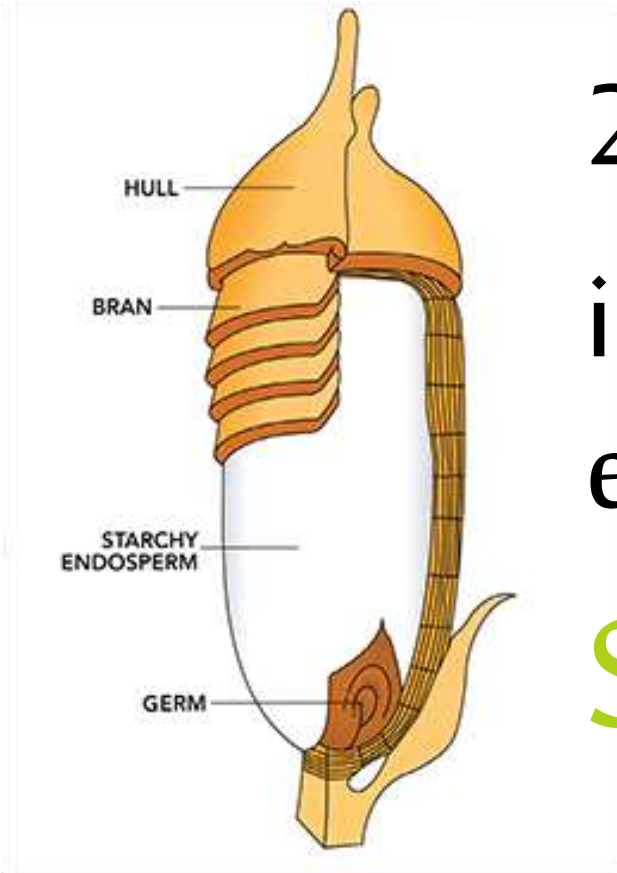
1. Japan and China study: diabetes risk rises by 10% with each increased serving of white rice
2. 1999 study: Diabetes was virtually unknown in the Neolithic Age, before rice was cultivated based on archaeological records and observations of modern hunter gatherer societies (Australia aborigines and Alaska eskimos)
3. US study (2009): incidence of diabetes and obesity started to increase in 1980s, paralleled by increase in carbohydrate consumption

Nature of evidence linking grains (rice) and sugar to diseases II

4. Several studies of obese diabetics: Reduction of carbohydrates result in weight loss and improvement in insulin response
5. Diabetics are 2-5x more likely to have CHD, 44% will develop atherosclerosis, 20-25% will develop impaired kidney
6. Mouse experiment: AGE-rich diet led to atherosclerosis etc., AGE-poor diet led to healthier and longer life
7. University of Connecticut: carbohydrate reduced to 10% of total calorie + unlimited amt of beef, poultry, fish, eggs, cheese, nuts, seeds: result: LDL reduced by 26% after 12 weeks

WHY does rice cause diseases? 1. Rice (and other grains) are relatively new to humans





2. RICE

is

essentially

STARCH

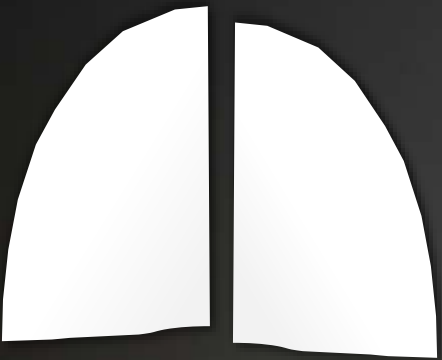
Humans do not need to eat rice



The energy we get from rice can be produced by the body by eating fatty and protein rich foods, such as meat and fish

This is the reason why our hunter gatherer ancestors survived before the advent of grains

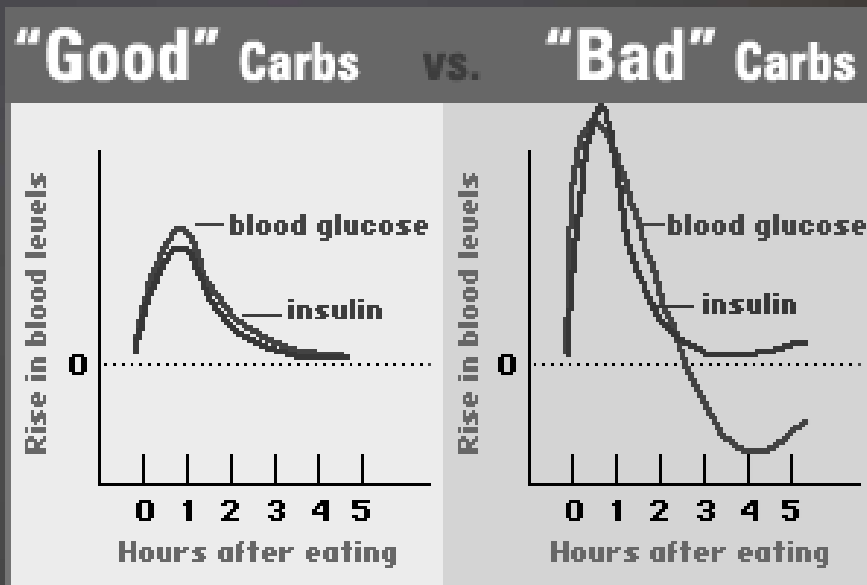




What's wrong
with rice?



When digested, starch, the main component of a rice grain, becomes glucose, the form that goes into the blood stream



Glycemic index, a measure of speed at which glucose reaches the bloodstream

Staple food	Glycemic index
White rice (Rc 160)	70
Kamote	32
Cassava	30
Banana (saba)	53
White corn	54
Pan de sal	87
White bread	93
Sugar	65
Brown rice (average)	50
Parboiled rice (average)	38

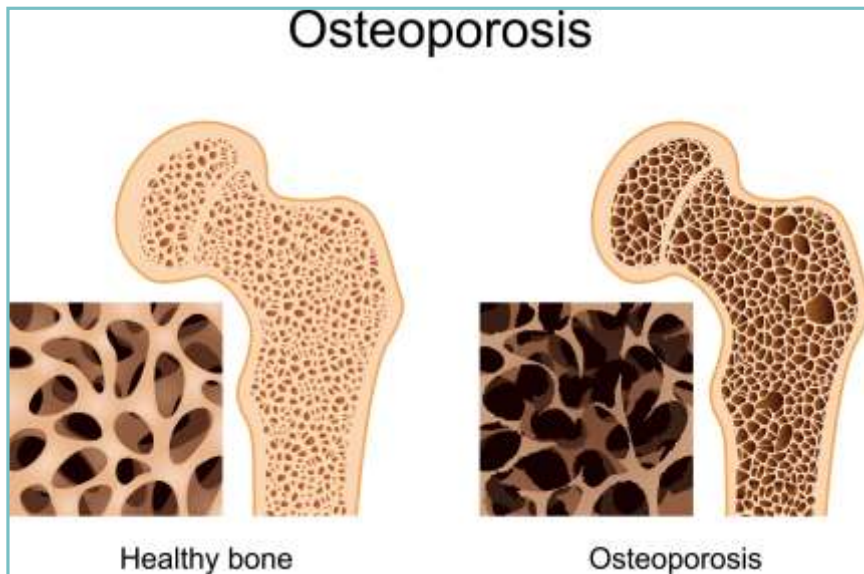
Consequences of glucose spikes in the bloodstream

Diabetes. Hypertension. Obesity. Coronary heart diseases. Stroke. Others: gout, colon cancer, ulcer, osteoarthritis, etc.



Excess glucose also linked to...

BONE LOSS

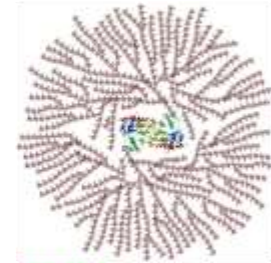
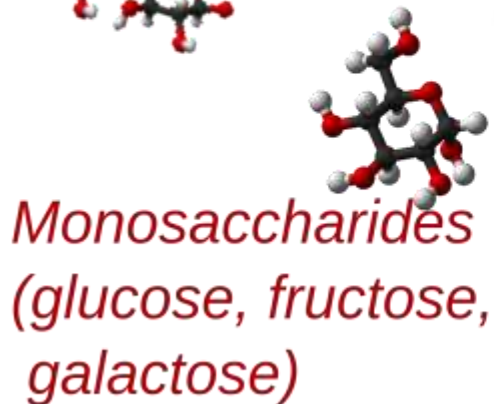
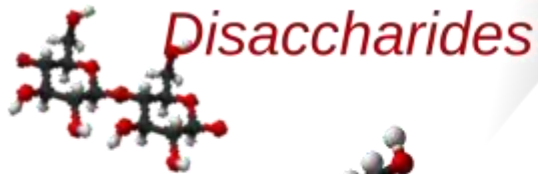


MUSCLE LOSS



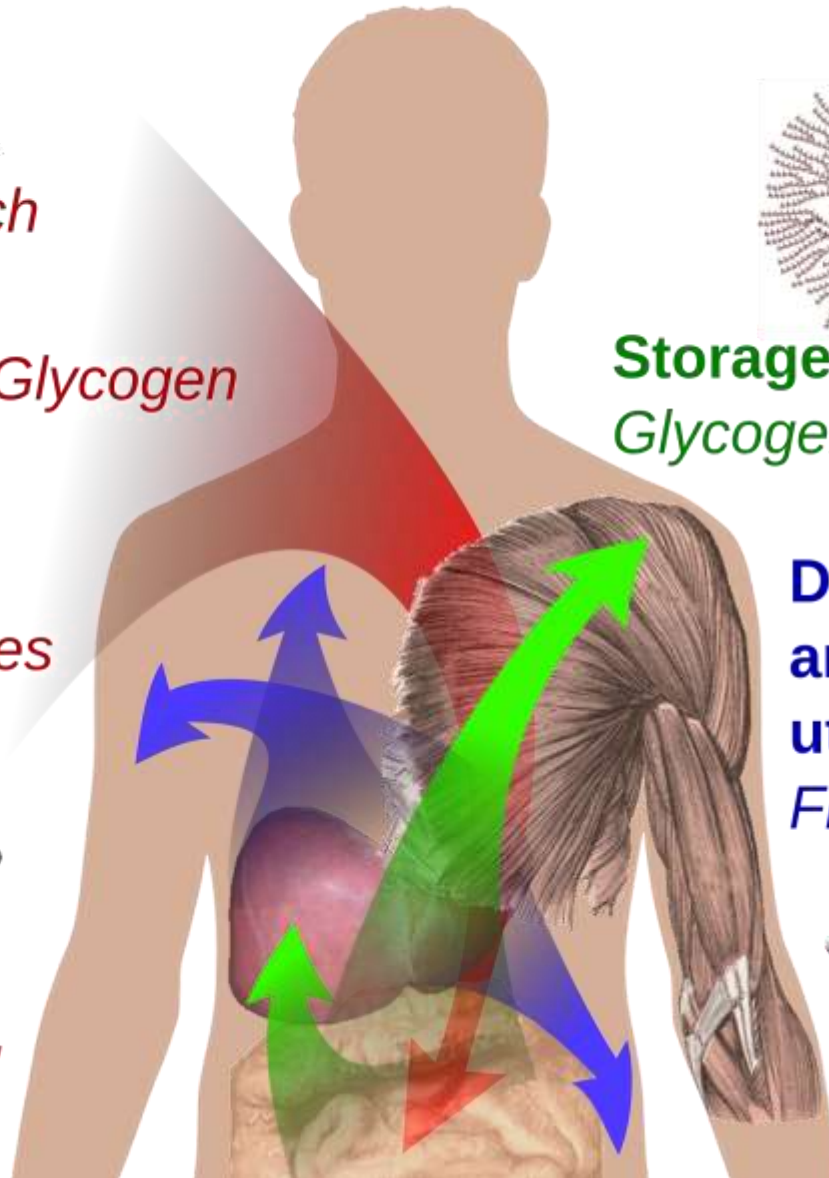
Glucose metabolism

Intake:

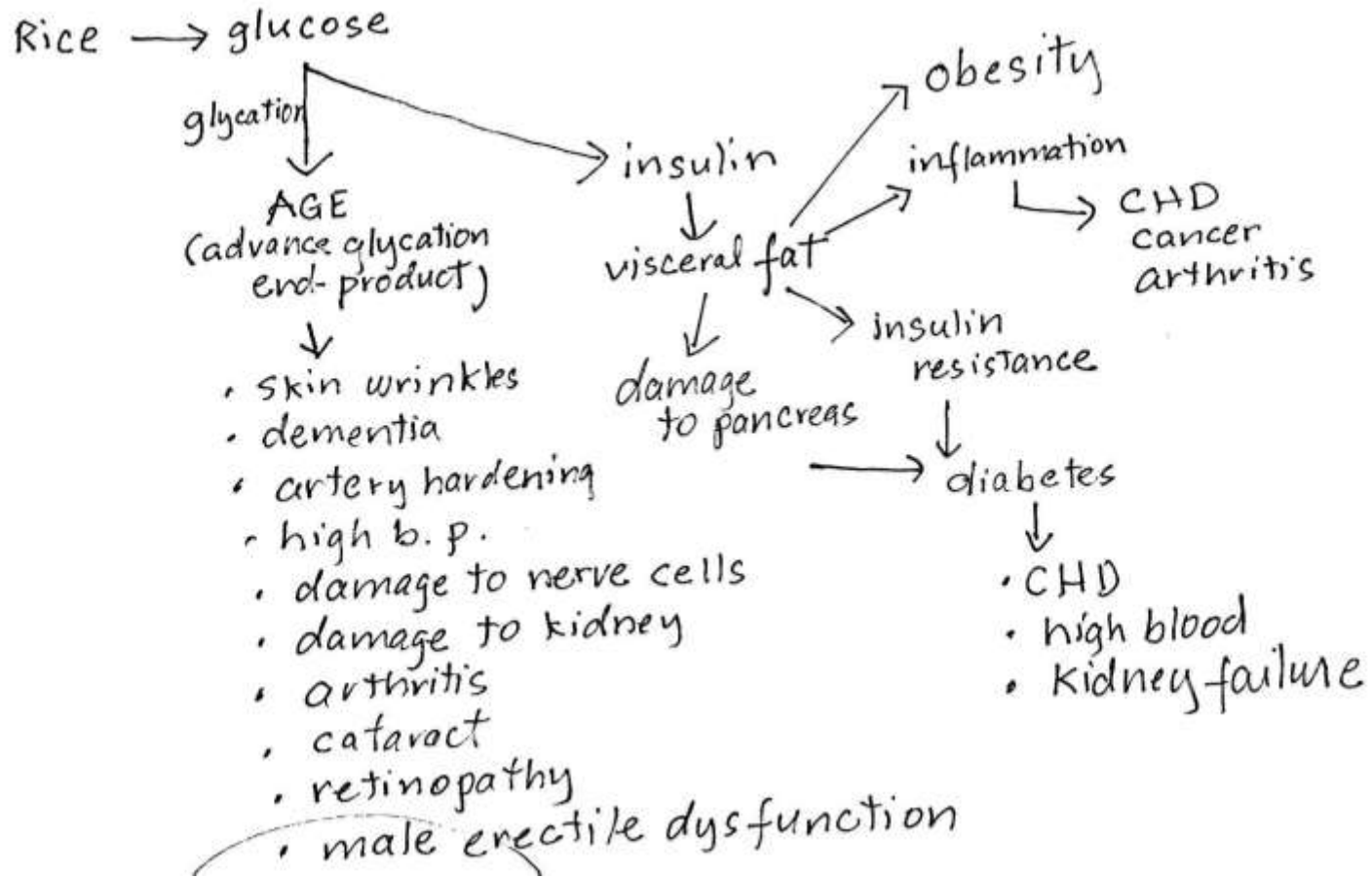


Storage:
Glycogen

Distribution and utilization:
Free glucose



Connecting the dots





Rice is addictive

Why is (white) rice so harmful particularly to Filipinos

- Filipinos eat too much boiled white rice, and little else

Years	Per capita/year (kg)
1980s-90s	92
2008-2009	111
2009-2010	119

- Global per capita consumption: **65 kg**, generally decreasing
- Other Asian countries with high per capita consumption (India, Bangladesh) prefers parboiled rice, or eat other fiber-rich food (Indonesia)



If rice is so bad,
why do we eat it?





CHEAP

to some rice and salt
constitutes the meal



Convenient
easy to transport,
store, cook



Our parents and
grandparents

DID



Status symbol
camote is not as sexy



We are
ADDICT



ED



If rice production is so bad, why do farmers
continue to grow rice?




No choice: land only suitable for rice

Rice farmers know no other skills

Better little income than nothing

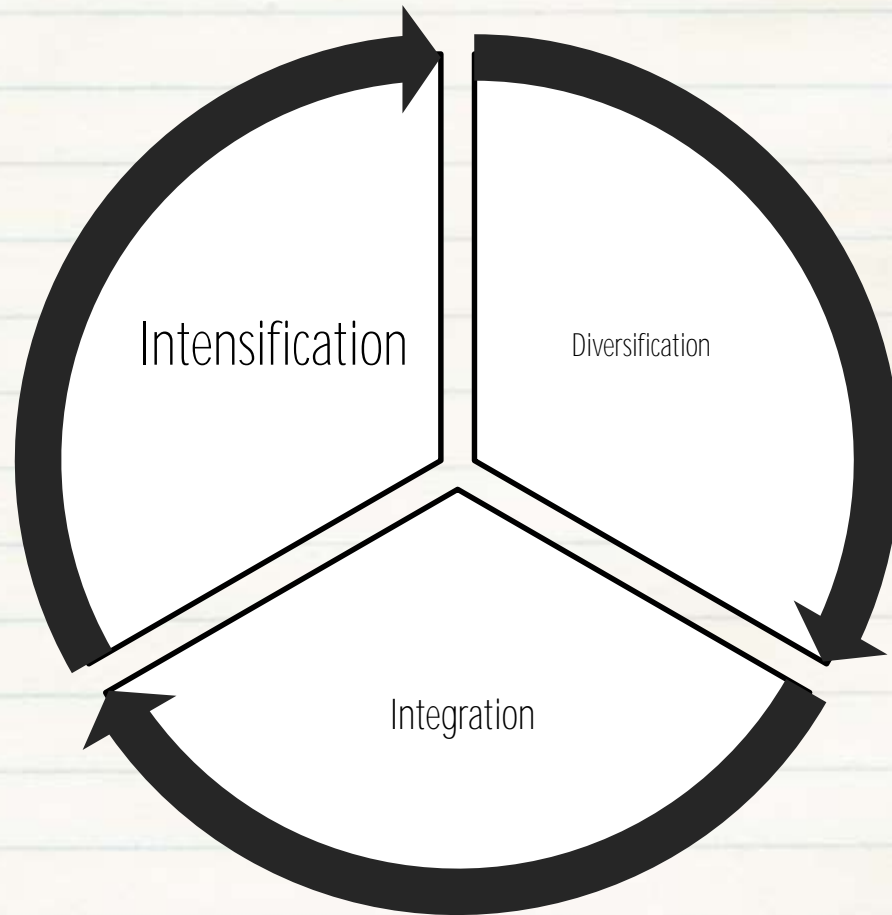
For household food security

So they can grow garlic and vegetables after rice...

A woman with a black wig and an orange scarf is speaking into a microphone. She has a surprised expression. Behind her, two other faces with similar expressions are visible, appearing to be peeking through a hole in a wall. A large white speech bubble is positioned to the right of the woman, containing the text "Now this is starting to make sense!".

Now this is
starting to
make sense!

Less rice, more of the others, is better for farmers and consumers alike



The IDI Strategy

(Some) Existing Models of IDI



mushroom

carabao

vermiculture

Mungbean, corn,
soybeans, camote,
other field crops

Garlic/ onion,
cabbage,
cauliflower,
tomato, other
vegetables

Rice

Duck

Fish





VERTICAL INTEGRATION





HORIZONTAL INTEGRATION





A farmer observes a vegetation patch with okra, mungbean, string bean, and bitter gourd within a rice landscape. Photo: F. Horgan. IRRI.





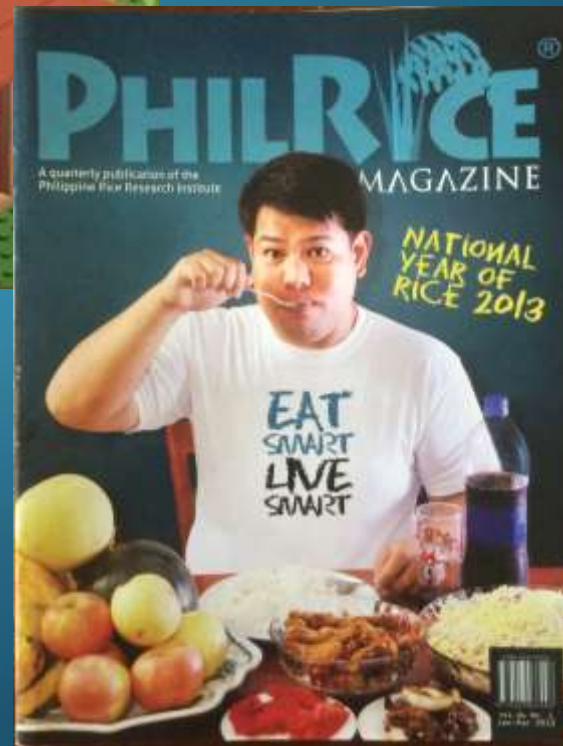
PalayamaNayon

The Rural Transformation Movement

#Palay

#Yaman

#Nayon



Download for free at: <http://www.philrice.gov.ph/e-magazine/>

“All Truth passes thru 3 stages:

First, it is ridiculed.

Second, it is violently opposed.

Third, it is accepted as self-evident.”

Arthur Schopenhauer



The single, generally unknown truth from this
seminar

Rice is not good for you...

But we can make it better through IDI

The open forum will tell us whether this truth will be ridiculed,
violently opposed, or accepted...



Have a rice day* fellas!_