

# PALAY: FROM THE PADDY TO THE PLATE

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*Palay* or rice (*oryza sativa*) has been the staple food crop of the Philippines for centuries. As far as historical records show, Iloilo has been one of the leading provinces in the production of palay. When the Spaniards first came to the Philippines in the 16th century, they noted that Panay, particularly Iloilo, was the granary of the archipelago. However, after the port of Iloilo was opened to world commerce in 1855, sugar became the chief export crop of West Visayas, and some areas of riceland in Iloilo were converted to sugarland. The census of 1903 revealed that Iloilo ranked only No. 9 as a rice-producing province. But Iloilo was not to be outdone for long; in 1970, it gained the No. 1 place and has maintained that position up to the present.

Since this conference focuses on the history and culture of West Visayas from 1900 to the present, we shall dwell on the production and preparation of rice from the paddy to the plate for the past 90 years among the people in the lowlands of Iloilo.

## 1. Land Preparation, Seeding and Planting

In the past, up to around 1960, there were distinct rice planting and harvesting seasons in Iloilo. The planting season started with the coming of the first rain in May when cultivation began. The implements used were the *arado* (plow) *karas* (harrow) and *suyog*. All these were drawn by a carabao or, in some places, an ox. The plow was made of wood except for the *punta* (tilling point) and the *lipya*, the thin, curving plate that made the plowed soil turn upside down to one side of the furrow.

The first thing a farmer does was to prepare the *sabudan* (seedbed). The seedbed could be prepared on *olason* (dry land) or on *binati* (wet land). At least two plowings were made. The first pass of the plow was called *bungkag* and the second plowing was called *ukang*. After plowing, the farmer applied the *karas*, a flat pulverising implement made of bamboo poles about 1 1/2 m. wide and 2 m. long. The branches of the bamboo were not cut clean of the poles; around 2 to 3 inches were left to form the spikes of the *karas*. The spikes cut the clods into smaller particles. If the field needed levelling, the wooden *suyod* was used to rake with its tines soil from the higher to the lower portion of the paddy.

The dry seedbed was prepared in May while the wet one was set up in June or early July when there was enough rain to irrigate the field. Usually, two sacks (cavans) of seeds were needed for every hectare of land.

Following age-old beliefs, some farmers planted a *tanglad* grass at the corners of the seedbed before casting the seeds. This was believed to make the palay grow as verdant and lush as the *tanglad*. Other farmers also planted branches of *bugnay* to induce the rice to bear grains as numerous and full as the *bugnay* fruits.

Up to the 1960s, the chief rice crop in Iloilo was called *makan*. *Makan* is a Malay word that means "to eat". The census of 1903 gave 35 varieties and about 117 subvarieties of rice in the Philippines. The variety widely used in Iloilo was the *arabwon*, which took about six months to mature.

The land preparation for transplanting also took at least two plowings. After the second plowing, the farmer plugged all the leaks in his dikes in order to fill up the paddies with rain water. Flooding the fields for a few days made the soil soft and muddy. Then water is reduced and the field is harrowed to have it ready for planting.

To prepare the seedling for transplanting, the seedbed is filled up with water so that the seedling could be pulled up easily and the roots washed clean. Usually, men did the pulling (*gabot*) of the seedling which is tied with thin bamboo slats (*sukdap*) into bundles (*putok*) the size of a man's wrist. The bundles are then strewn on the harrowed fields for planting (*tanom*) that is mainly done by women and girls.

The *manoggabot* of the seedling was paid one *gantang* (10 salmon cans) of palay for every 100 bundles, and the *manogtanom* was paid one *gantang* per day, plus lunch and sometimes breakfast. For centuries up to the 1950s, the *dagyaw* system of labor operated in Iloilo whereby a farmer and his wife and older children assisted for free his neighbor in planting his rice fields. In return, his neighbor and his family would reciprocate the assistance when it was the farmer's turn to plant his own fields.

The iron plow was introduced in the early days of the American regime but did not gain general use until the 1930s. The most popular iron plow was manufactured by the Vargas Plow Factory in Iloilo City which carried the XX trade mark. The bamboo *karas* was gradually replaced by one made of hardwood with iron spikes. My father built dozens of wooden *karas* in his shop in Sta. Barbara from the 1950s to the 1980s. Lately, the *labay*, a piece of wood about 3"x5"x10' was introduced to perform the function of the *suyod* in leveling the ricefield.

Before the 1960s, Ilonggo farmers did not apply chemical fertilizers, herbicides or pesticides. The soil of the province was fertile and there was still the natural balance between rice pest and their predators. I remember that when I was a child there were plenty of mudfish, rice spiders (*udto-udto*), dragonflies and birds that preyed on the insect pests.

The coming of the high-yield (HV) or miracle rice varieties revolutionized rice culture. The IR 8 variety was introduced in Iloilo by the 1960s. It was high yielding and matured early. However, the HVs required plenty of water, fertilizers and farm chemicals to combat weeds and pests.

Iloilo was fortunate for having three existing irrigation systems before the advent of the miracle rice. These were the Sta. Barbara Irrigation System (completed in 1922). The Aganan River Irrigation System, (1923) and the Jalaur River Irrigation System.

Since the HVs matured in less than four months, they enabled farmers - first, in irrigated areas and later, even in rainfed places - to raise two crops a

year or five crops in two years. This obliterated the distinct planting and harvest seasons. While one farmer was planting his paddy, another may be harvesting his own crop. The coming of the HV varieties also called for engine-powered implements. The first hand tractors were imported from Japan and came around 1959. A few years later, the Philippine-made "Mageco" hand tractor was marketed. It became popular that until now many people still call this type of tractor "Mageco" regardless of whether it was built by Jamandre or Jasje or someone else. In water-logged areas, however, the "Mageco" was not effective. To solve this problem, a lady farmer Maggie Smith Villaruz, invented the "Turtle" power tiller that can sort of "float" in deep mud.

As in traditional cultivation, two plowings are still necessary with use of tractors. The first plowing may be done with the disc plow or spiral plow. The second plowing is usually done with the drum wheel which also functions as the *karas*.

In the first years of the HV varieties, seedbeds were utilized. But unlike the traditional seedbed, this one was made either on a matting of banana leaves on the ground or on a bamboo or wooden platform (*papag*). The seeds were placed several grains thick, thereby reducing the area of the seedbed, and were transplanted when they were only 12 to 15 days old. Planting was made in straight lines according to the Margate and later, the Masagana system.

By the 1970s, it was discovered that HV rice could be effectively planted by direct seeding (*sab-og*) wherein the seed was directly distributed on the paddy without passing the seedbed. Direct seeding may be done on dry land in May or on wet land in July. Four cavans of seeds are usually needed per hectare. The application of herbicide is necessary to prevent the weeds from sprouting up together with the palay.

## 2. Harvesting and Threshing

The traditional way of harvesting palay used two tools: the *kayog* and the *galab*. The *kayog*, manipulated by the fingers of one hand, was used mostly by women who cut the rice stalk at the point immediately above the last leaf and only a few inches from the grains. The *mangalani* (harvester) bundled (*opong*) the palay as soon as it filled her hand as held between the fingers and thumb, using a rice stalk to tie it. The bundles (*inupong*) were shared at the end of the day between the owner and the harvester at the ratio of 10 to 1 (*onse-onse*) with one share going to the harvester. The bundles were then stacked into a *tumpi* to wait for threshing time.

The *galab* was usually wielded by men. The palay stalk was cut midway from the ground and left in thin piles (*laylay*) to partially dry in the field. After all the palay had been cut, the *laylay* were gathered into a *tumpi* or *tumpis*. In gathering the *laylay*, the *manoggalab* used a 2 meter rope (*saklit*) with a wooden prong (*panga*) at the end. He placed the *saklit* on the ground, piled several *laylay* on it, then holding both ends of the *saklit*, tightened it to form the *laylay* into a roll. Securing the *saklit* on the *panga*, he shouldered the roll

and took it to the *tumpi*. In the *galab* system of harvesting, sharing was done after the threshing on a ratio of 5 to 1.

When there was only one crop a year, threshing (*linas*) was done in the sunny month of February or early March when the wind is blowing briskly from the northeast (*amihan*). A bamboo *papag* was raised about six to seven feet on four long poles whose tips met at the top to form a pyramid. Roofing of coconut leaves was made about seven feet above the *papag* to shade the threshers (*manoglinas*) from the sun. Two to eight men did the threshing on the *papag* while one man fed them with *linaylay* from the *tumpi*. The men threshed with their feet, the grains falling through the slats of the *papag* to the sawali (*amakan*) spread on the ground. While the grains fell down the wind blew the chaffs away. One man tended the palay on the *amakan*, removing with a rake the pieces of rice stalks or weeds that might fall from the *papag* while the threshing was going on.

Threshing may last a few days. At night, some if not all of the men kept watch over the harvest by sleeping in a makeshift shelter covered with straw (*uhot*). Once the threshing was through, the winnowing (*pahangin*) was performed. The men raised the *papag* a few feet higher or moved it a little away and placed another *amakan* beneath it to catch the cleaned palay. Two or more baskets (*bakag*) were used to scope the palay and hand it to the winnowers on the *papag*. The *manogpahangin* let the palay fall gradually to the *papag* so that the wind could blow away all the chaffs and other impurities.

### 3. Storage

After the *pahangin*, the clean palay was measured using the *paniga*. Three *panigas* equalled one cavan that filled up one sack. The sacked palay was then transported by *karosa* or on men's shoulders to the owner's *tambubo* (*bodega*) under his house or his *tar-is* made of bamboo and *nipa* raised on stilts, or into large bamboo bins (*tabungos*) inside his house.

With the coming of the HV rice, threshing and winnowing had to be done immediately, especially during the first crop on the rainy months of August and September. With the new technology, threshing is now done by mechanical threshers and winnowing by mechanical blowers. The *tambobo* and *tar-is* have been replaced by warehouses owned either by the government or by private rice millers and traders.

### 4. Drying and Milling

In the past, palay drying was mainly done on *amakan* spread under the sun. This is still being done today, although many barangays now have communal concrete pavements for drying palay and some rice mills have mechanical driers.

For ages, the mortar and pestle (*lusong* and *hal-o*) were the means of pounding palay into rice ready for cooking. In Iloilo, the *lusong* was made from the trunk of *kamonsil*, *lumboy*, *langka* or some other suitable tree, and the *hal-o*

from *agho* or *madre de cacao*. The *lusong* may be placed on the ground or on a pair of *salakan* made of slender bamboo poles anchored on a wooden *talambanan* partially buried on the ground. The pair of *salakan* poles went through two holes on the floor of the house and a couple of inches above the floor, each split into two parts to fit into four small cavities at the bottom of the *lusong* to support it. The *lusong* was usually located beside a window so that the men pounding rice could feel the cooling breeze. When pounded, the *lusong* raised on the *salakan* produced a loud sound that could be heard two kilometers away.

The dried rice was poured into the "mouth" of the *lusong* at about one *ganta* at a time, then pounded with the *hal-o*. Wide and shallow bamboo baskets (*kalalaw*) were placed on both sides of the *lusong* to catch rice that might fall off. Pounding (*bayo*) was done by a single *manogbayo*. Sometimes two men (*asud*) or three men (*tigatlo*) pounded together. The *asud* and *tigatlo* produced their own distinctive staccato sound of the pestles.

In some places, the *pawa-an* made of two bamboo basket-like structures filled with clay and provided with grinding "teeth" of *sibukaw* wood was used to remove the husk from the palay before it was pounded in the *lusong*. What came out of the *pawa-an* was the *pinawa*, about two-thirds husked and one-third unhusked palay. The *pinawa* was then fed into the *lusong* for polishing.

The engine-run *kiskisan* rice mill was introduced long before the war but in remote places the *lusong* and *hal-o* tandem lasted until the 1950s. Lately, the *cono* and baby *cono* rice mills came and the *kiskisan* was phased out.

In the days of the *lusong*, women were adept at using the *kalalaw* or *nigo* to separate (*sisig*) the clean rice from the unhusked palay after pounding.

## 5. Cooking

Cooking rice in the old days was done using an earthen pot (*kulon*) in an open fire on a *dapog*. The rice was washed in the *tubo*, a finely woven basket smaller than the *kalalaw*, to remove dirt. The wash-water (*balunas*) was rich in vitamin B and was mixed with rice bran (*lintok*) to feed the pigs. The pot's bottom was lined up with a piece of young banana leaf to keep the cooked rice from sticking to the pot. Some people used the leaves of *pandan china* which gave a pleasant aroma to the rice.

Cooking lasted about ten minutes. As soon as the water in the pot was gone, the fire was put out, leaving only the live embers to finish the cooking process (*paalangan*) until the rice became soft and fully cooked. It was then laddled out (*sukad*) with *luwag* and placed on the *tubo* for serving on the table. Many poor families ate on the floor. The family members took portions of the rice from the *tubo* and placed these in their individual *dulang* (earthen plate) or *pinggan* (tin plate) to be eaten with the *utan* (vegetables) and other viands (*sudan*).

During World War II aluminum kettles, casseroles and pans were forged from parts of wrecked Japanese and American planes. Since then, aluminum and stainless kitchen utensils have replaced the traditional earthen pot and wooden laddle. Some families now own pressure rice cookers. The *dapog* and

*kalan* have given way to the gas range and electric stove. The *tubo* and *dulang* have also been replaced by porcelain and plastic plates.

Despite the changes in technology in tilling, planting, harvesting, threshing, milling and cooking, and its own genetical evolution from the seasonal *makan* to the higher yielding and better tasting IR 64, rice has remained the Filipinos' staple food, and the average man from Western Visayas does not consider himself well-fed unless he has three square meals of rice and viands a day -- at breakfast, lunch and supper.