

## CHAPTER 1

### *Egypt's Unchanging Agriculture*

**N**AKHT WAS A MINOR OFFICIAL at the court of the great pharaoh, Thotmosis IV. Nakht, who lived about 1400 B.C., owned many fields in upper Egypt, near the capital city of Thebes.

In the spring, his workmen went out into the fields and turned the rich, Nile-made soil with heavy iron hoes. Other workmen crushed the stubborn clods with hammers and broadcast wheat over the small fields by hand. The thirsty laborers made frequent trips to drink from the goatskin jug hanging in a nearby tree. Laborers in three tiers lifted water in crude leather buckets to irrigate the fields.

In the fall, the workmen reaped the grain with hand sickles. Others carried the grain from the field in baskets. Lumbering oxen tramped the grain from the straw. Then the grain was tossed into the air to separate the kernels from the chaff. The farm supervisor measured it and made a record for his lord, Nakht.

At night, the peasant workmen walked back along the irrigation ditch to their small one- or

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two-room huts in the crowded, disease-ridden, foul-smelling village made of sun-dried brick.

Nakht died. The court embalmers prepared his body for its voyage through the underworld to stand judgment before the great Egyptian god, Osiris. The king's artist painted on the walls of his tomb the scenes from his fields. The tomb was sealed. Blowing sands of the desert soon covered it over and Nakht was forgotten.

Well over 3,000 years have passed. The pharaohs' temples are now but colossal ruins, and the small farming village of El-qurna stands where American archeologists recently found the tomb of Nakht.

It was spring when I visited Egypt. The peasant farmers of El-qurna went out into the fields and turned the rich, Nile-made soil with heavy iron hoes. Other workmen crushed the clods with hammers and broadcast the wheat by hand. Thirsty laborers made frequent trips to drink from the goatskin jugs hanging in nearby trees. Laborers in three tiers lifted water in crude leather buckets to irrigate the fields.

At night, the peasant workmen walked back along the irrigation ditch to their disease-ridden village of sun-dried brick.

Nothing had changed. Farm life in Egypt is frozen to the pattern of the pictures that I saw painted in the tomb of the ancient landlord, Nakht. More than a hundred generations have brought little improvement.

I landed in Egypt at Port Said. Its harbor was filled with ships flying flags of many nations — ships waiting their turn to head down the Suez Canal for the Red Sea.

### ***Irrigation Means Life***

Four hours by American-made bus, the road to Cairo ran across several miles of barren salt marshes of the Nile Delta and then headed up a large irrigation ditch, past small Egyptian towns toward the flat, fertile valley along the banks of the Nile. The irrigated land, green with heavy crops of vegetables, broadbeans, and Egyptian clover, at times extended for several miles on either side of the ditch. In other places, great dunes of windswept sand were piled up to the very edge of the lifeline of water, a thousand-year-old struggle between man and the shifting desert. Here and there groups of swaying palms towered over dirty mud villages. The Egyptian peasant farmer, the *fellah*, spends his life in the farm villages surrounded by unbelievable poverty, filth, and disease.

All life in Egypt flows with the irrigation ditch. As we passed, there were groups of young boys swimming in the water. Ancient looking barges with limp, tattered sails moved up and down the ditch with loads of grain, pulled by men straining against the ropes stretching from the ship to the shore.

Along the edge of the canal a boy splashed water

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on a water buffalo standing half-side deep in the cool water. Across from him a group of Egyptian women beat the dirt from clothing with sticks. Up and down, along the roads on the banks, jogged little donkeys with unsteady loads of firewood. Slow, dignified camels moved in twos, threes, and fours — in follow-the-leader strings — with sacks of grain or loads of stripped sugar cane on their backs.

On the six million acres of irrigated land along the Nile, three-fourths of the people of Egypt live the lives of peasant farmers, *fellahin*, in one of the most densely populated farming regions of the world. Between 1,000 and 1,500 people live on every square mile of land and raise with garden-like care three crops a year of grain, cotton, and vegetables. In the food markets of Cairo I found some of the largest leeks I have ever seen.

Once each year heavy rains in the heart of Africa pile up floods that move down the Nile, overrunning the level fields during August or September, leaving behind a rich layer of black, new soil and enough moisture for the *Nile crop*.

Later in the season, for a few cents a day, workmen put in long hours lifting water up the twenty-foot banks by poles. It takes three workmen at different levels to raise the water to the top of the bank. Used five-gallon tins that once contained motor oil occasionally substitute for the ancient leather buckets — the only improvement in the system since the time of the pharaohs.



In nearby fields, donkeys, camels, and water buffalo pull wooden plows on plots of land owned by the better-than-average farmers. The poorer farmers dig up their plots with giant sized hoes. Only the more prosperous farmers can afford work animals. But let me tell you about one Egyptian farmer.

Ahmed Abbah is a farmer in lower Egypt. He lives with his family in two rooms of a mud hut in a small farm village crowded along the banks of a main irrigation ditch. He rents three acres of land from a wealthy landowner in a nearby town. His rent is \$200 an acre per year. Three-fourths of the Egyptian peasant farmers rent their land.

By local standards, Ahmed is one of the better-off farmers in the village. He has a homely buffalo cow which his wife milks, a small donkey which helps plow the land, and a few variegated colored chickens that have the run of the village. His wife sells the milk and the eggs (when the chickens lay) to buy sugar and tea for the family. The family eats corn bread, cooked dried beans, and peas. They may even eat a few vegetables and fruit in season.

Ahmed is proud of his large pigeon roost, a dome of sun-dried mud. He may sell a few pigeon squabs in the market, but he really keeps the pigeons to produce manure for his small plots of land. Ahmed's biggest cash crops are cotton and rice. Cotton makes up about one acre out of every

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five in Egypt, and furnishes the country's most important export.

To keep up the fertility of the soil and furnish forage for the work stock, he keeps at least one-fifth of his land in Egyptian clover, which he cuts from one to four times a year. Sometimes his wife and children pull the green clover, tie it into small bundles, and carry it on their heads to the village to sell in the market place.

Ahmed grows a small plot of sugar cane each year. Most of it his wife sells in the village. The peasants buy the stripped canes from her to chew as they walk along the streets.

Ask Ahmed what he needs most and he will tell you, "We need more land."

That's the big problem of the Egyptian farmer. Eventually Ahmed will have to share his land with his sons and their families. With a population increase of 1 to 2 per cent each year, and already three farmers to every acre, the present pressure against the land is one of Egypt's biggest agricultural problems.

Sons do not move to the cities to work in factories. They must stay on the land to eke out a meager living from the soil.

While yields here are among the highest in the world, the amount produced per man is pitifully small and explains in part the extreme poverty of the fellah. Tractors and modern farm equipment would merely disrupt further the agricultural economy of a country already faced with too many

farm workers on too few acres. A far greater need at present is projects that would increase the amount of irrigated land and new industries that would absorb some of the surplus farm workers.

The Egyptian government plans to build dams in upper Egypt to increase the supply of water for irrigation. Another plan calls for increasing for the fourth time the height of the famous Aswam Dam. In the delta, approximately 7,000 acres are reclaimed yearly from the salt marshes. Even these programs will only partially solve the need for more farm land.

Next to the land shortage is the need for factories that would absorb some of the surplus farm labor. Adventurous capital has been lacking in Egypt. Those who have money to invest generally have invested in buildings or land that would return a high income with little risk. Factories with their greater risk have not appealed to Egyptian capital.

With extremely low income, the uneducated fellahin is the victim of too little land — generally owned by someone else. Here ancient farming goes on as it has for thousands of years.

### ***American Contrast***

John Parks owns a 200 acre farm in central Illinois. His grandfather broke the land with oxen hitched to a wooden plow whose iron point was held on with leather thongs. In the evening his grandmother spun the wool from their 30 head

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of sheep to make crude homespuns for the youngsters who walked three miles to a log schoolhouse.

Today John Parks and his two sons sit on the shiny tractors and watch the long furrow of dark, rich earth turn over behind the tractor. In the fall, combines move across the rich fields of soybeans. Two-row corn pickers husk out the golden corn.

Each morning the yellow and black painted school bus stops to pick up the two youngsters, Nancy and Ted, to whisk them off to the big brick community school in the nearby town. Nineteen-year-old daughter, Jane, is a sophomore at the university.

Quite a contrast to the plodding Egyptian fellah and his miserable family!

We are a new country. Europe and the Middle East are old countries. There, agricultural problems frequently are amplified. Yet many of them are like the problems we ourselves face. There are lessons that we can learn from these countries. In the remaining chapters we'll look at the agriculture of Europe and the Middle East, for here we can find lessons that should help us build our own agricultural future.