

## AGRICULTURE

# Post-Napoleonic Period Had Agricultural Adjustment Woes

**G**OVERNMENT control of agriculture, which agitates Great Britain no less than it does the United States, is no new thing under the sun. There is a striking parallelism between present efforts to straighten out the agricultural-economic tangle and efforts that were made after the last preceding great war, the Napoleonic struggle that ended just 99 years before the World War began.

At the Norwich meeting of the British Association for the Advancement of Science, Dr. J. A. Venn, president of Queens' College, Cambridge University, pointed out a whole series of striking similarities, and even more striking differences, between the two historic periods.

## Poor Bore the Brunt

There is a modern tone, in spite of a superficial quaintness of expression, in the thunderings of a "leader," or editorial, quoted by Dr. Venn from an 1826 issue of the *London Times*:

"What the nation pants for, is a sensible fall of prices. Bread must be had cheap. Rents must be sacrificed to the lives of the people. It is monstrous impudence to talk about the ruin of the farmers from a lowering in the price of produce. The farmers want nothing better than low prices, if they can but get their lands at proportionate rents . . . Leave the loaf of bread to find its own value."

Yet despite the *Times*' demand for the sacrifice of the wealthy landowners for the benefit of the poor tenant farmers and the ultimate cheapening of the city workingman's bread, the poorer classes had to bear the brunt of economic maladjustment in the post-Napoleonic period.

"When summarizing the results of the policy followed during the post-Napoleonic war era, it is significant to observe that its cost to the Exchequer was negligible," Dr. Venn observed; "for, rock-like, it rested on the axioms that consumers should pay to the utmost . . . and that workers must, for the sins and omissions of statement, unavoidably suffer in full the blasts of an economic hurricane."

Times change. Dr. Venn mentioned some striking contrasts between the laws of then and now:

"Then, penalties faced the worker,

who, with two or three of his fellows, 'combined' for the purpose of seeking an increase in his rate of remuneration; now punishment awaits the employer who fails to pay an independently determined minimum wage . . . Then, landlords were omnipotent; now, the tenant can virtually dictate his terms to a subservient owner."

Concluding, Dr. Venn offered a modest word of prophecy:

"Looking back on the past history of British agriculture, I am confident of one thing—whether that time be far distant or near at hand, the industry will resume its prosperity—its importance it has never lost—and unborn generations will regard the present epoch as affording one of those many trials through which, during countless generations, it has emerged unscathed but remodelled, this time not despite a policy of *laissez faire*, but as a result of considered action and preferential treatment of an all-embracing character."

*Science News Letter, September 14, 1935*

## AGRICULTURE

# Agriculture In Britain Faces Serious Problems

**B**BRITISH agricultural interests have problems of their own to face, no less than agriculture in America. The traditional "crusted conservatism" of the British farmer tends to aggravate the problems in spots, yet at the same time serves as a restraining influence on immature political and economic schemes, the British science journal (*Nature*, Aug. 10), points out editorially in commenting on opinions expressed by Sir John Russell, noted agricultural scientist.

One basic fact to be counted on, in the opinion of *Nature*, is the ingrained individualism of the British dweller on the land. He will cling to his own acres, and refuse to be swept into any collectivist scheme for large-scale management.

"That is all to the good," is the comment, "because state supervision failed during the late War; it failed in France in the Revolution, and it is proving a failure in Russia now."

## PSYCHOLOGY

# New-Born Kittens Have Taste Discrimination

**T**HE NEW-born kitten comes into the world with his eyes closed, but he is not taste-blind. He likes his milk. But he refuses water unless it is made more attractive by the addition of sugar. And he can tell the difference between plain milk and a drink to which sweet, sour, salt and bitter tastes have been added.

The ingenious method by which new-born kittens were enabled to make known to scientists what they are able to taste was described at the meeting of the American Psychological Association by Carl Pfaffmann, of Brown University.

An artificial "mother" consisting of a small nursing bottle was fitted with a rubber nipple to which a pressure-recording instrument was attached. As the kitten sucked the milk out of the bottle the negative pressures developed were recorded by the instrument. If the kitten sucked hard he liked his food, it was assumed.

With plain milk in the bottle, the record showed a regular sucking, but when salt, acid or bitter substance was added the record betrayed that the kitten knew the difference. The sucking record then was "distorted."

*Science News Letter, September 14, 1935*

However, that same individualism is proving an obstacle to present much-needed improvement in the general agricultural development in Britain. The land needs capital, especially for drainage. The small farm owner has none; neither has the landowner who rents his farms on a partnership basis. He is unable to keep up his end of the partnership.

Sir John, according to the report, looks upon proposals for "state farming" with considerable apprehension, yet cannot escape the fact that the only practicable source for farm-improving capital may be state financing, with a corresponding degree, at least potentially, of state control.

Whatever may be the way out that is finally chosen by British agriculture, both Sir John and the commentator on his opinions are agreed that changes are on the way.

They do not share the optimism of the Chancellor of the Exchequer, who declared recently before an audience of bankers that Britain has recovered 80 per cent. of her prosperity. They see "75 per cent. of our population living on or under the border-line of poverty," and hold that "we cannot be surprised at the economic unrest that obtains in so many quarters."

Finally, the opinion is expressed: "Until some solution or amelioration of the problem of the existence of poverty amidst plenty is forthcoming, substantial national progress seems out of the question."

*Science News Letter, September 14, 1935*

#### PLANT PATHOLOGY

### Disease-Weakened Plants Fall Prey to Other Ills

**P**LANT diseases, no less than diseases of human beings, give new point to the old adage that "troubles never come singly." A plant, weakened by the attack of one fungus, falls prey to some other disease the more easily, just as a man may be prepared for pneumonia by an attack of the "flu."

Cases in support of this thesis were cited by F. T. Brooks of Cambridge University, in his presidential address, delivered before the botanical section of the British Association for the Advancement of Science.

When a log lies rotting on the ground, it is attacked by one fungus after another, as a rule, rather than by several species of fungi simultaneously. The species observe a regular order in their coming and going, resembling the "succession" among higher plants, where an oak forest, for example, succeeds one of pine, and afterwards beech and maple may replace the oak.

Varieties of wheat, bred to be especially resistant to the rust disease, may be attacked by mildew. Afterwards, rust is able to invade them where the mildew has been growing on their stems and leaves. The same "preparation" for rust may be made by another fungus disease known as bunt.

Another combination involves fungi and the invisible viruses of such diseases as leaf mosaic. The fungal cause of the terrible potato-blight disease, that caused famine in Ireland in the 1840's, followed by wholesale waves of emigration to America, was once resisted by Irish potatoes which now cannot hold out against it at all. Mr. Brooks cited the opinion of one of his colleagues that this increase in susceptibility was due to the prevalence of the virus disease, potato mosaic.

*Science News Letter, September 14, 1935*



Dislocated Names

**R**ATHER odd, how we misname many familiar plants.

Water lilies, for instance, are not lilies at all. Neither are they what the Germans call them, "water roses." They are more nearly related to the flowers of the magnolia tree.

Again, that beautiful flowering tree called tulip poplar throughout the South and a large portion of the East is not related very closely to either the tulip or the poplar, though its flowers do look rather like tulips, and its large growth, broad leaves and soft wood do suggest the poplar. It also is a fairly close botanical cousin of the magnolia.

Calla lilies are not lilies. They belong to the arum family, being relatives of jack-in-the-pulpit, caladium or "elephant-ear," and the strange, ill-smelling giant flower that sometimes get publicity under the name of sacred African lily.

Squirrel corn is not corn, and has nothing in common with corn. It is a small white spring wildflower, related to the more familiar Dutchman's-breeches and the red-and-white bleeding-heart of old-fashioned gardens.

Dogtooth violets are not violets, but lilies. The asparagus-fern of the florists

is really a fine-leaved asparagus, not a fern; it might more appropriately be called fern-asparagus. The Spanish moss that drapes trees in the South is not a moss, but a relative of the pineapple.

Many plant names arise from similarities in shape to more familiar growths. Thus, grass has lent its name to the little flower known as blue-eyed grass, which is really an iris; also to the marine eel-grass, which belongs to a distinct family quite remote from the grasses.

Similarly, we have reindeer moss, which is a lichen; flowering moss, which is a portulaca, and "water moss," which is a name loosely applied to any fine-leaved or finely-divided green growth found in wet places.

Almost any spreading-topped tree or other tall plant in the tropics is apt to be called a palm, whether the name is botanically appropriate or not. Thus the traveller's palm, the screw palm and the umbrella-palm are all members of quite diverse plant families. As a matter of fact, they do not even look like palm trees.

*Science News Letter, September 14, 1935*

#### AVIATION

### New Giant Soviet Planes To Have 206-Foot Wing Span

**F**IRST scanty details of the design of the sixteen giant airplanes which will take the place of the ill-fated "Maxim Gorky" have been released by the Soviet Government.

The new planes will be of the all-metal monoplane type powered by six engines, each of 1,200 horsepower. The Maxim Gorky had eight engines of 850 horsepower each.

Designed to carry from 60 to 70 passengers, the new planes will have a top speed of 167 miles an hour.

The wing span of each "ship" will be 206 feet, the over-all height 36 feet, the length 111 feet and the distance between the landing wheels 34 feet.

*Science News Letter, September 14, 1935*

SUBSCRIPTION ORDER COUPON	
To Science News Letter, 2101 Constitution Avenue, Washington, D. C.	
Please <input type="checkbox"/> start	my subscription to SCIENCE NEWS LETTER for <input type="checkbox"/> 2 years, \$7
<input type="checkbox"/> renew	<input type="checkbox"/> 1 year, \$5
<input type="checkbox"/> Enclosed find check.	<input type="checkbox"/> Please send bill
Name.....	
Street Address.....	
City and State.....	
Extra postage charges: 50c a year in Canada; 75c a year in foreign countries.	