ley, superintendent of the Newlands Experiment Farm, Fallon, Nevada, which he collected at that place in August, 1921. Mr. Headley reports that the plant is becoming very abundant in that section, but that it has not yet invaded fields of growing crops on good soil, so that it may not prove to be a serious pest. It makes a rank growth on soil which is too alkaline for the usual cultivated crops, and is found in fields which have received no irrigation as well as in those which have been frequently irrigated. Additional specimens have recently been received at the U. S. National Herbarium collected by Professor H. M. Hall (No. 11751) at Los Baños, Merced County, California, October 10, 1921, and by Elias Nelson (No. 1002) at Yakima, Washington, October 3, 1921. Mr. Nelson reports that this plant has appeared during the past five years in the Yakima Valley, where it is spreading, and that it is eaten greedily by stock.

Bassia hyssopifolia is an annual, with much the habit of *Chenopodium album*. The flowers are glomerulate in the axils of small bracts, and are borne in short or elongate slender paniculately arranged woolly spikes, at first usually dense, later elongate and interrupted. Each of the five perianth segments at maturity bears on its back a spine incurved into a hook.

A second weed which apparently has not been reported from this country is *Centaurea picris* Pall., also a native of the Caucasus. Specimens were first recived in May, 1921, from Mr. C. O. Townsend, who reported that the plant was said to be a bad weed in the vicinity of Salt Lake City. Specimens from Idaho Falls, Idaho, collected by Miss Ayres of the Idaho Seed Laboratory, have been forwarded during the past year to Mr. E. Brown of the United States Department of Agriculture by Miss Anna M. Lute of the Colorado Seed Laboratory. Miss Ayres reports that the plant is becoming a serious pest in some parts of Idaho. The species has also been collected during the past year at Clifton, Kansas, by Mr. J. W. Head. Mrs. E. P. Harling of the Kansas State Agricultural College, who has investigated this occurrence, believes that the species may have been introduced in Turkestan alfalfa seed. The only North American specimen in the National Herbarium is one collected at Courtney, Missouri, in 1914, by B. F. Bush (No. 7152).

Centaurea picris is one of the knapweeds or star-thistles of the Old World, numbering several hundred species, some of which have become weeds in this country, while a few others are cultivated for their flowers or foliage. It is a several-stemmed perennial, somewhat tomentose or glabrate, with pinnatifid or dentate lower leaves, smaller and entire upper ones, and rosy or pink medium-sized discoid heads, and is especially characterized among the species known from this country by its involucral characters. The phyllaries are roundish to oblong, with greenish bases and scarious whitish obtuse to acuminate entire or subentire appendages, those of the inner phyllaries somewhat pilose.

It is evident that both of these plants find in the arid alkaline regions of the West a habitat similar to that of their Old World home, and unless measures are taken for their destruction, they may become serious pests, as has been the case in recent years with such plants as the "Russian thistle" (*Salsola pestifer*) and the prickly lettuce (*Lactuca scariola integrata*).

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CAT-TAIL (TYPHA LATIFOLIA) AS A FEED

EXPERIMENTS conducted on the writer's farm demonstrate the practical value of cat-tail as a feed for hogs. Sixty head were turned into a three-acre cat-tail swamp, and obtained sufficient nutriment from the rhizomes to keep them in good flesh for three months. No illness or digestive disturbance was noted.

The following table compares yellow (raw) corn with cat-tail flour, as analyzed by J. A. Le Clerc:

	Corn	Cat-tail
Moisture	6.96	7.35
Ash	0.82	2.84
Fat	2.82	0.65
Protein	7.88	7.75
Carbohydrate	80.83	81.41

The large amount of food material contained

in the starchy central core of the typha rhizome was shown by A. P. Claassen, who estimated that one acre would yield a total dry weight of 10,792 pounds of cat-tail rhizomes, or more than two tons of flour, made from the central core.

Typha may be used as a substitute for high-priced corn. It would seem that the best time for feeding would be in the fall and winter, as the starchy content is likely to be highest then.

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SOIL SHIFTING AND DEPOSITS

MR. PETERSON'S article on deposition of soil in the Palouse area of eastern Washington and Idaho, which appeared in SCIENCE, January 27, 1922, should prove of interest and value to foresters as well as agriculturists in this region. The questions naturally arise: How far is this soil carried into the Bitterroot mountains, and how does it influence the character of the soil and vegetation within the forest areas? The writer's observations in this respect may be of interest in this connection.

Dust storms, commonly referred to as "Palousers," are of comparatively frequent occurrence throughout northern Idaho and northwestern Montana. They accompany high winds from the west and southwest; they are well known and despised by housekeepers in Kalispell, Missoula, Thompson Falls, Libby and all surrounding towns. The dust penetrates into every house and office. When accompanied by rain the window panes and buildings are besmirched with streaks of red soil. One of these storms in March, 1917, laid down on the snow within the timbered region of northern Idaho about 600 pounds of dust per acre. The dust from that storm hung on the trees, even at 6,000 feet elevation, along the Kootenai-Priest Divide throughout the summer of 1917. Settlers say that dust storms are common along the Cœur d'Alene, St. Joe and Clearwater rivers.

The writer has noted the billowy soil surface, unmistakably due to surface shifting of the soil, as far east as Pierce, Idaho, about eighty miles east of Moscow. The soil is unusually deep and fertile and the vegetation is more profuse, with better growth of timber, over the larger portion of the Clearwater Forest in Idaho than occurs on the forests farther north or on the forests of western Montana. It is of interest to note that the Clearwater forest lies directly in the path of the strong west winds from the arid parts along the Columbia River, and that Lewis and Clark, as early as 1806, called attention to the unusually deep and seemingly fertile soil in the Clearwater basin.

These observations lead to the supposition that the accumulation and shifting of soil on the Palouse area have been effective in preventing natural establishment of the forest here in the past, though climatic records indicate that the area should grow western yellow pine; and they strengthen the belief that the unusually good growth of timber, profuse vegetation, and deep soils on certain parts of the western slopes of the Bitterroot mountains in Idaho, are due partly to the fact that soil is carried in by the westerly winds from lava plateaus along the Snake and Columbia rivers.

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QUOTATIONS

AN INTERNATIONAL LANGUAGE

THERE is an increasing demand among scientific men for international agreement as to the choice of a universal auxiliary language. After a long struggle, many of the fundamental tools of thought have been unified. All nations now use the same system of numbers, Arabic numerals, measurements of latitude and longitude, mathematical symbols, chemical formulæ, and, at least in science, the metric system.

But language, the master-key to thought and the vehicle of communication, remains under the curse of Babel. Were it possible by acquiring a second language in addition to the natal language to convey ideas to fellow-workers in every part of the world and to receive their ideas, one of the greatest barriers to the progress of science would be broken down. Time and money would be saved, overlapping of