

Our Paris Letter.

The Paris Exhibition.

CEREAL EXHIBITS OF THE WORLD — EXHIBITS AND EXHIBITORS.

(From our Regular Correspondent.)

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The countries which may be considered the great producing sources of supply are the United States, Russia, Germany, Denmark, Turkey, Egypt, France, Austria, Spain, Italy and Portugal. These countries export more or less, in seasons of plentiful crops, to their neighboring nations in Europe, but some of them are frequently compelled to import largely for their own use. England, with her prolific fields and splendid system of agriculture, has a positive, permanent and increasing deficiency of supply.

In the department of cereals the United States should have equalled, if not excelled, all other nations, but it is to be regretted that there are but comparatively few exhibits which, however, in quality, demonstrate the superiority of the American grains.

Canada surpasses her American neighbors in the tasteful arrangement of her cereals. The specimens embrace many excellent varieties of red and white winter wheat, and some very fine samples of spring wheat; also some very good specimens of oats, rye and barley, all giving evidence of an excellent system of cultivation. Russia, through her Minister of Agriculture, contributes more than five hundred specimens of cereals from her extensive grain-producing districts. Throughout this wide spread region, possessing great diversity and adaptedness of soil and climate, wheat, corn, oats, rye and barley are successfully cultivated, producing a large and annually-increasing surplus for export, sufficient, in the opinion of some persons, were the means of transportation adequate, to supply the deficiencies of Europe.

Egypt contributes a well-arranged and interesting variety of specimens. The native varieties of wheat are of the type peculiar to that country—long, rough and flinty, badly cleaned, and infested with weevil, evincing an imperfect husbandry. The best specimens in this collection come from Upper Egypt, labelled "acclimated," and grown from some of the best varieties which improved cultivation has produced in Europe, which once obtained their supplies from the prolific delta of the Nile.

The specimens of corn are of the ordinary round flint variety. The samples of barley, rye and oats are of fair quality, but are badly cleaned.

The agricultural interests are carefully represented, and the specimens of cereals are numerous and arranged with good taste. The samples of wheat consist of red and white winter, no specimens of spring being observed in the collection. All are of excellent quality, evincing a high state of cultivation; and some of these varieties, if introduced into America, would undoubtedly prove a valuable acquisition to its agricultural interests.

Prussia is unsurpassed in the neatness and finish of its agricultural departments. The numerous and admirably-arranged specimens of very superior qualities of grain give evidence of the high state of cultivation which that country has obtained under the fostering care of its government and the ability of soil and climate to produce the best varieties in great proportion. The specimens of winter wheat—white, red and amber—are of excellent character, plump, thin-skinned, and good color, possessing properties necessary to yield the largest quantity of superior flour.

Norway and Sweden excite some surprise by their well-arranged and excellent display of cereals grown between 58° and 70° north latitude. Barley is successfully cultivated; even in latitude 70° the specimens are of fair quality. Rye and oats are cultivated to considerable extent between 68° and 70°. Some very good specimens of corn, of the round flint variety, are noticed. They were grown in latitude 59° 55'.

Spain.—The specimens of wheat, with the exception of a few of superior quality, are of the usual type of Southern Europe, rough and thick-skinned. The specimens of oats, barley and rye are generally good. The specimens of corn are small and flinty.

PERE.

Veterinary.

Earth and Swamp Miasmata—Their Effect upon Mineral Organisms.

Noxious effluvia, or miasmata, emanate from the surface of the earth everywhere where organic substances, in contact with air and moisture, are decomposing and putrefying. Consequently such emanations take place especially in swamps, sloughs, marshes, bogs, and in such low or level localities in which a compact and impervious sub-soil—hard-pan, for instance—is underlying a loose and porous top-soil, rich in humus or organic substances. In such localities the rain water cannot escape into the ground, stagnates in the loose top-soil, and dissolves and permeates a great many organic substances. The latter, on account of the loose and porous condition of the surface of the ground, are accessible to the influence of the atmospheric air, and the soil itself, being usually dark colored or black, absorbs a great amount of heat; consequently, all the conditions necessary or essential to the decomposition and putrefaction are abundantly provided. New broken ground (prairie) especially frequently develops noxious effluvia, or miasmata, because the breaking or plowing has loosened the formerly compact top-soil sufficiently to bring atmospheric air and moisture in contact with its organic constituents.

A distinction may be made between the miasmata emanating from ground or soil rich in organic substances, and loose and porous enough to absorb sufficient air and water to effect a rapid decomposition (earth miasmata), and the effluvia arising from bogs, marshes, sloughs, etc., or from low ground with a rank vegetation, saturated and periodically covered with stagnant water (swamp miasmata). The differences in the condition under which, and in the materials of which, these miasmata are produced, but especially the physical and chemical condition of the soil, the origin and nature of the decomposing or putrefying substances, the temperature of the atmosphere, the more or less liberal supply of air and warmth—a very active factor in generating earth miasmata—the scarcity or abundance of stagnant water—a great abundance, excluding to a certain extent the influence of air and warmth, constitutes frequently an essential factor in the production of swamp-effluvia, seem to cause the specific differences which are existing between the various miasmata, and observed not only in their effect upon animal organisms, but manifested also by the specific (musty, moldy, marshy, or swampy, etc.) odors of certain (swamp) effluvia which are absent, or at least not perceived, in such miasmatic emanations. Still, the real nature of those differences is but little known.

Noxious effluvia remain usually confined to the immediate neighborhood of those places in which they have been produced, but, under favorable circumstances, may be carried off quite a distance by winds, etc.

THEIR EFFECT UPON ANIMAL ORGANISMS.

Great differences are observed as to the effect of the various earth and swamp miasmata upon animal organisms. Some of them act very suddenly, cause extremely acute diseases, effect sudden changes in the composition of the blood, or cause poisoning and decomposition—anthrax diseases and typhus. Others act gradually, or have a comparatively slow effect, cause chronic and cachectic diseases—such as rot, chlorosis, dropsical conditions, etc.—and undermine the constitution. All, however, agree in effecting serious changes in the composition of the blood—cause, blood-diseases. Differences are manifested also concerning their actions upon different animals. As a general rule,

sheep suffer sooner and more seriously than horses, horses more than cattle, and cattle more than swine. Still, there are exceptions. Some miasmata seem to affect only, or at least principally, a certain class of animals or only a certain species—hogs, for instance—and have but very little or no influence whatever upon others. Besides that, young animals, as a general rule, suffer sooner and more severely than fully matured or older ones. Further, all noxious effluvia, without exceptions, are much more dangerous in the evening, night, and cool mornings following a hot and sultry day, than in the day-time. They are more effective in a stagnant atmosphere than in an atmosphere moved by winds; and cause more damage—probably because more fully developed—in the latter part of the summer and in the fall than at any other season of the year. They are most dangerous to young animals driven out to a miasmatic pasture early in the morning, before the dew has disappeared from the grass, because at that time the miasmatic principle, whatever its nature may be, not only hovers close to the ground and is inhaled, but it is also contained in the dew and is consumed with the herbage of the pasture. That food and water, besides being frequently the vehicle or bearer of the miasma, is also otherwise, as to quality and quantity, of considerable importance in increasing or decreasing the effectiveness of a miasma, by strengthening or weakening and predisposing the animal organism, may not need any special mentioning. As a general rule, dry food, especially if fed in the morning, has a tendency to weaken the effect of the miasmatic principle.

As the most dangerous must be considered those effluvia that emanate from drying swamps, marshes or bogs, or, after an inundation, from ground exceedingly rich in organic substances, such effluvia, especially during the latter part of summer, cause frequently acute blood disease of a very malignant character—anthrax and typhus. Effluvia emanating under usual conditions from swamps partially covered with water, or from other low and wet places, are less dangerous and are usually productive only of chronic and cachectic diseases.

Swamps, bogs, sloughs, pools of stagnant water, and low and wet places in general, besides producing miasmatic effluvia, become dangerous to the health of domesticated animals, also, by affording the means of development for a great many entozoa (intestinal worms) and other animal parasites. — *Veterinarian, in American Paper.*

Hints on Horse Keeping.

The wide stall is a luxury, and ought to be six, or even ten feet wide, if room can be spared. Loose boxes are important for horses of great value; in such stalls they can get perfect repose by changing their position, recover from the fatigue of a hard day's drive, and be ready for their task the next day. The food best adapted to the horse is oats and hay of the best quality, occasionally varied with a bran mash, with turnips or carrots as an alternative. The growth and development of bone and muscle depend greatly on the food they eat. It is important to select such as contains all the elements needed to form the bone and muscle of the horse. It is self-evident that the nutritive matter supplied by the food must be equal to the exhaustion, or natural waste of the body, to keep up condition.

The horse that is about to be driven on a journey needs hardening by exercise—preparing by sweating out the body to purify and increase the circulation of the blood, and also by hand-rubbing the legs to make them firm and elastic—a preparation in some degree corresponding with that attained by a horse that is daily driven on the road for ordinary work. For one week previous to the start they need daily exercise, commencing with eight or ten miles, and gradually increasing to twenty per day. This exercise, with appropriate food, will harden their muscles, strengthen their limbs, and prepare them to perform their tasks without giving out on the road, materially declining in flesh, or seriously exhausting their physical powers.

If we perform long drives with horses accustomed to short work only, the sudden transition from indolence to great exertion will relax their muscles, weaken their joints, depress their spirits and break down their constitution. The leading cause of so many valuable horses being spoiled by long drives is from being short of work. They are not prepared for such severe exertions. Condition will prepare them to perform their work cheerfully, last out with sound limbs, and preserve their constitutional vigor for future usefulness.