

# Special Newspaper Bulletin.

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## Missouri Agricultural Experiment Station.

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### BROAD-TIRED WAGONS.

The Missouri Experiment Station has made a large number of experiments during the past two years with the draft of broad and narrow-tired wagons. These tests have been made with the ordinary narrow-tired wheels and with six-inch tires, on macadam streets, gravel and dirt roads in all conditions, on meadows, pasture, stubble and plowed fields both wet and dry. Bulletin No. 39 of the Station, by Director H. J. Waters, gives the results of these tests.

The broad tires pulled materially lighter on the macadam street and the gravel roads. Also on dirt roads in all conditions except when soft or sloppy on the surface, underlain by hard roadbed, and when the mud was very deep and sticky. In both of these conditions the narrow tires pulled considerably lighter. It should be borne in mind, however, that the roads are in these conditions for a comparatively short period of time, and this at seasons when their use has naturally been reduced to the minimum. The tests on meadows, pastures, stubble land, corn land and plowed ground in every condition, from dry, hard and firm to very wet and soft, show, without a single exception, a large saving in draft by the use of the broad tires.

The bulk of the hauling done by

the farmer is on the farm, in hauling feed from the fields and hauling manure from the barns, etc. The actual tonnage hauled to market is insignificant in comparison with that hauled about on the farm, inasmuch as a large proportion of the products of the average farm is sent to market in the form of live stock or its products.

It is clearly shown by these experiments that in many instances where the narrow tire is very injurious to the road or field, the broad tire proves positively beneficial when the same load is hauled. When it is considered, therefore, that the average draft of the broad tire is materially less than the narrow tire, and that the injury done to the roads and farms by the narrow tire can be almost wholly corrected by the use of the wide tires, there remains no longer any good reason for the use of the narrow-tired wagons.

These experiments further indicate that six inches is the best width of tire for the farm and road wagon, and that both axles should be the same length, so that the front and rear wheels shall run in the same track. A profusely illustrated bulletin giving full report of these tests is now ready for free distribution upon application to the director of the Missouri Experiment Station at Columbia.