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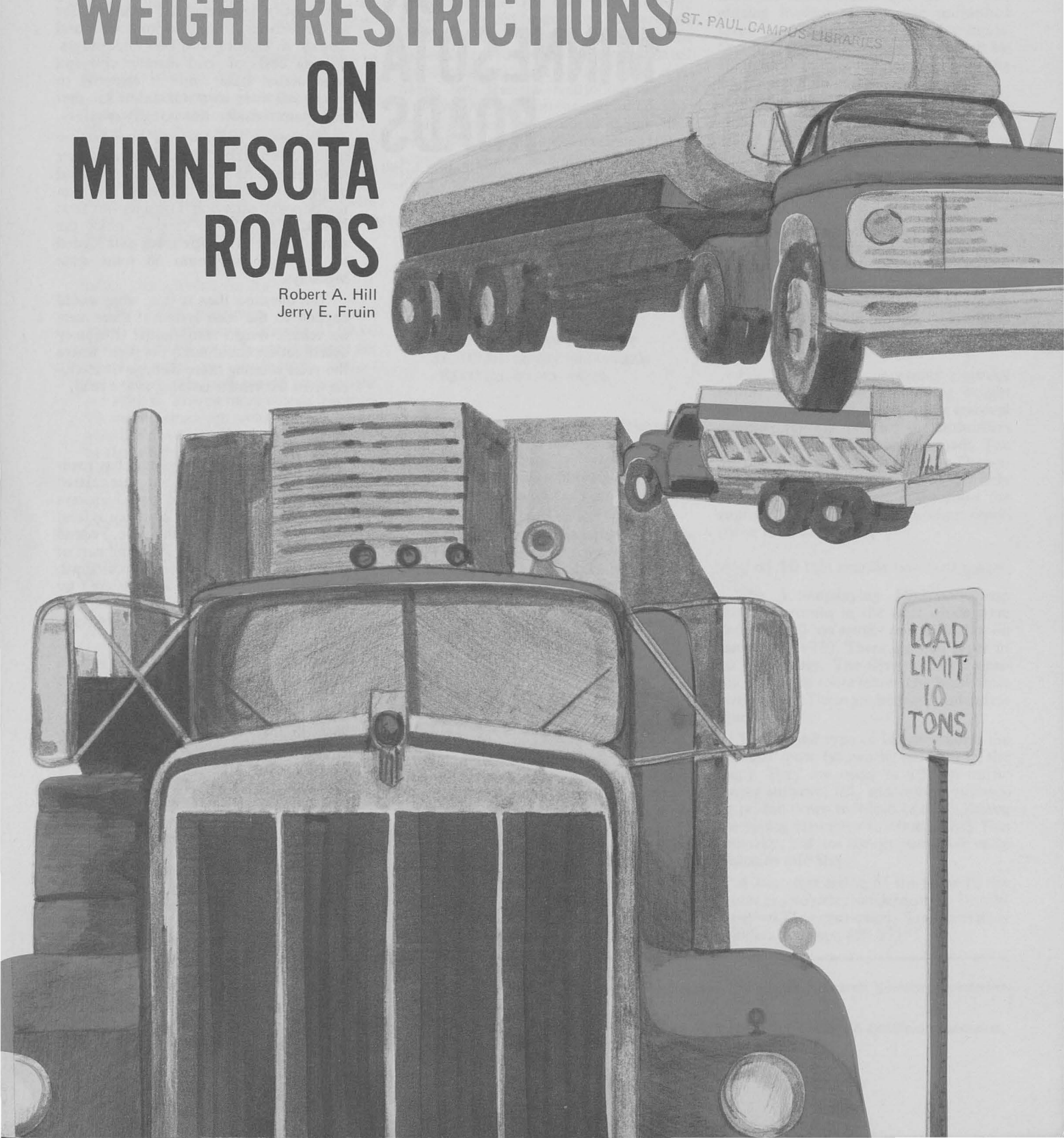
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WEIGHT RESTRICTIONS ON MINNESOTA ROADS

Robert A. Hill
Jerry E. Fruin

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WEIGHT RESTRICTIONS ON MINNESOTA ROADS

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Road weight restrictions. What are they? Why are they necessary? Do they interfere with the movement of goods on farm-to-market roads?

Why weight limits?

Maximum weights on vehicles traveling Minnesota's highways are regulated for several reasons, mainly to limit wear and damage to existing road beds and bridges. Soaring costs of road maintenance and construction have made it essential to keep road wear to a minimum. Another important consideration is highway safety.

The trend has been to manufacture larger commercial vehicles with heavier load designs. At the same time, the trend in passenger vehicles is clearly going in the opposite direction. Consider this fact: it would take 3,750 cars to inflict the same damage as a **single truck axle** loaded to the legal maximum on some state highways.

The question then is this: what would happen to the road system if there were no vehicle weight restrictions? Obviously deterioration could reach the point where the road is doing more damage to a vehicle than the vehicle is doing to the road.

Who posts the limits?

Minnesota's highway system has roads under several separate but interrelated jurisdictions. Federal and state highways are known as the trunk highway system and are administered by the state. Federal funds are involved in the state and part of the county system. County, municipal, and township roads are administered by the corresponding local governments, with important standards imposed by the state.

The state trunk highway system is divided in 9 construction districts and 16 maintenance areas. District engineers are responsible for determining weight restrictions (within the law) for the trunk highways in their district. County engineers are in charge of choosing, posting, and removing special restrictions from county roads. In municipalities, municipal engineers perform these tasks. For township roads, township boards have the same authority, but frequently lack the staff to exercise it. They rarely have an engineer or staff to put up or remove signs. In addition, many township roads are not built to withstand the damage that can be inflicted by heavier vehicles. As a result, state law protects township roads by specific year-round and seasonal limits.

The Federal Government's role

The Federal government has been the most important element in defining Min-

nesota's trunk highway weight restriction laws. The pattern can be traced to the Federal Aid Highway (FAH) Act of 1956. Prior to that Act, an individual state had exclusive jurisdiction over its roads' weight restrictions. The 1956 Act, however, specified that no state would receive any Federal highway funds if it permitted vehicle loads in excess of guidelines provided by the Act on any interstate highway. Minnesota was among those states complying with the guidelines in order to keep receiving the funds.

The FAH Act was amended in 1974 to raise the weight restriction guidelines. Three years later Minnesota adopted the new Federal guidelines. Thus, Minnesota weight restriction laws are anchored in two Federal Acts and much of the specific wording of the state laws deals with special provisions such as exclusions, seasonalities, and permit issuance.

What are current limits?

The 1979 maximum weight limits stated in Minnesota Statutes 169.80 through 169.88 are in terms of weight per wheel, weight per single axle, weight per tandem axle, and overall gross weight per vehicle. Two or more wheels less than 48 inches apart are considered a single wheel. Routes are commonly referred to by the weight limit in tons per single axle, where one ton is 2,000 pounds. Thus a "5 ton route" means a legal limit of 10,000 pounds per single axle, and a "9 ton route" would be 18,000 pounds per axle.

State law provides two basic types of weight restrictions: 9 and 10 ton limits. No route in Minnesota can exceed these limits, although road authorities have the power to post lower weight limits on county and township roads "by reason of deterioration, rain, snow, or other climatic conditions."

All interstate highways and other routes designated by the commissioner of transportation (subject to approval of local jurisdiction) are open to the following maximum weight restrictions:

- 80,000 lbs. gross weight
- 20,000 lbs. on any single axle
- 34,000 lbs. on any tandem axle
- 10,000 lbs. on any wheel
- 12,000 lbs. on the steering axle

These are known as "10 ton routes" in figure 1. These routes are redesignated each calendar year. An estimated 4,500 miles of Minnesota roadway have been designated as 10 ton routes.

There are also seasonal 10 ton routes (figure 1) with restrictions which are very important in Minnesota. During spring thaw, road beds are particularly susceptible to breakup under stress. On state trunk highways the statewide seasonal restriction runs from early March to mid-May, but may or may not be uniform across the state. The state trunk highway system is divided in six zones for purposes of determining which dates are best for seasonal restrictions in each zone. Based on observations made by the district engineers, any seasonal restrictions on the trunk highway system may be raised, lowered, removed, or added to at any time during the year. In some instances 10 ton routes are posted at 9 tons or less during the restricted season. The reason for this is that a 10 ton axle weight puts up to 50 percent more stress on the road than a 9 ton axle weight and road damage is directly related to stress.

Aside from the 10 ton routes, no vehicle that exceeds the following limits can travel on Minnesota roads:

- 73,200 lbs. gross weight
- 18,000 lbs. on any single axle
- 32,000 lbs. on any tandem axle
- 9,000 lbs. on any wheel

These limits cover the bulk of the trunk highway system and also apply to almost all county, municipal, or township roads. These roads are more likely to be posted lower since the road beds are frequently of a lower capacity design.

Those roads judged incapable of bearing the 9 or 10 ton limits are posted at either 4, 5, 6, 7, or 8 tons. Generally, these are only seasonal restrictions which apply in the spring and are lifted following the spring thaws. Highway engineers are responsible for determining the posted weight limitations on each road under their jurisdiction. In other words, district engineers administer trunk highways, and county engineers administer county roads, etc. Townships, as noted previously, are frequently not financially capable of establishing and enforcing seasonal restrictions on all roads under their jurisdiction. For this reason, state law provides for a 5 ton seasonal limitation each spring from March 20 through May 15 on all county and town roads, unless otherwise posted by local authorities. This applies only to nonconcrete road surfaces located west and/or south of a line running roughly from Lake of the Woods to Bemidji and then to Duluth.

Are there exemptions or exclusions?

Yes. Exempt from these limitations are (1) fire apparatus; (2) temporary movements of agricultural implements, loose hay, or corn stalks that are either horse or tractor drawn; and (3) any vehicle with a special permit. In addition, special provisions are incorporated into the law permitting haulers of raw and unfinished forest products to exceed the 9 ton limitation by 20 percent or the 10 ton rule by 10 percent (subject to posting) over the winter period in northern Minnesota.

Sometimes a road bed may be capable of 9 or 10 ton traffic, but there may be a bridge on the route that is not safe for those heavy loads. For reasons of safety, any section of highway containing a weak bridge is usually posted at lower weight limits.

Emergency vehicles belonging to public utilities are exempt statewide from seasonal restrictions. School buses can carry up to 7 tons per single axle on any route, even if the route is posted at 5 tons. This holds statewide except where local road authorities may decide to impose the lower limits on school buses.

For information concerning a special permit which allows exceeding weight limits, or for questions regarding seasonal or other posting, contact the authorities having jurisdiction on specific roads. The district offices of the Minnesota Department of Transportation (DOT) can help with the trunk highways. Question the appropriate local authorities about county or township roads.

Map of 10 ton routes (see back cover)

The accompanying Minnesota map shows all routes in the state which were under the 10 ton weight restriction law on January 1, 1979. There are two types of 10 ton routes. The first type is a year-round 10 ton route (shown by black lines on the map). These are primarily interstate routes.

The second type of 10 ton route is the seasonal route (shown by red lines on the map). They are open to 10 ton traffic during summer, fall, and winter, but may be posted down to 9 tons or lower during the spring seasonal restriction period. This generally, but not always, runs from early March to mid-May.

A complete listing of the latest 10 ton routes is available from Minnesota Department of Transportation, Transportation Building, St. Paul, MN 55155.

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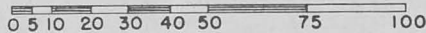
Robert A. Hill is a research assistant, Department of Agricultural and Applied Economics; Jerry E. Fruin is an extension specialist, Transportation, both at the University of Minnesota.



MINNESOTA

Figure 1.

SCALE OF MILES



**Year-round
10 ton route**

**Seasonal
10 ton route**

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