

under the label required by that particular State carries the guaranty of the seller as to the statements made on the tag. Seed sold by a dealer in one State to a farmer in another State is not subject to the law governing the sale of agricultural seeds in the State into which the seed is shipped, and the purchaser is largely unprotected. The majority of cases of the sale of misbranded and worthless seeds which are reported to the United States Department of Agriculture are those in which the seed has been sold from one State to a farmer in another for his use and so is not subject to the protection afforded by State law.

The Federal seed act prohibits the interstate shipment of fraudulently misbranded seeds. In most States authority is granted under State law to withhold from sale or to seize any seed which the State finds to be misbranded, while under the interstate clause of the Federal seed act it is only possible to seize seed that is fraudulently misbranded. Obviously, then, the farmer who buys his seed in his own State has greater protection than the farmer who buys seed from outside his own State. In all cases where the purchaser has any doubt as to the correctness of the label, accurately drawn samples should be sent for analysis and test to the seed-testing laboratory of the State in which the purchaser lives, or to the Division of Seed Investigations, Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C. The facts as to quality on which the various forms of protection to the seed purchaser have been built up are directly dependent on seed testing.

Seed testing protects the farmer in his purchases of agricultural seeds in so far as the farmer avails himself of the protection that is his for the asking.

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SHEEP are Handled Advantageously Under the Bedding-Out System For many years the most progressive sheepmen of the Southwestern States have recognized that open, loose herding of sheep and 1-night bed grounds are of special value in the production of fat, healthy sheep and are of great benefit to the range. To determine from actual practice the results of this system as compared with those of the old system of returning to an established bed ground, a study was made by the Forest Service on the Madison National Forest in south-central Montana. Definite information was desired on (1) the possibility of open, quiet herding without returning to an established camp at night; (2) the advantages of such a system to the range and to the sheep as compared with the old system; and (3) the method and organization necessary for successfully applying the new system. Several flocks of sheep were handled under each system and under such range conditions as would make the results comparable and reliable.

The Bedding-Out System

In handling the sheep under the bedding-out system they were, whenever it was practicable, allowed to camp where night overtook them. Leaving the bed ground early in the morning, they would always have fresh feed. (Fig. 123.) They soon drifted away from the bed ground openly and quietly, the herder, if necessary, turning the

leaders. As soon as the sun was shining brightly they customarily bedded down in the shade of the pines or under browse along creek beds. In the afternoon they commenced to graze again. The herder would let them drift, turning the leaders or retarding their progress if necessary. In the evening they gradually pulled together and by dark they were all in a band, and were allowed to bed for the night.

Herding Under the Old System

Under the old system the sheep were returned to an established camp each night. They were herded practically all day and kept in a more or less compact band by dogs. At night they were gradually herded back to the old bed ground. Dogs were used frequently in turning the leaders and keeping the tail end of the herd up with the leaders. The herder's camp was moved five times in 50 days. Camps were always near a small spring or stream and vegetation in the immediate vicinity was almost completely destroyed by the trailing to and from the bed grounds.

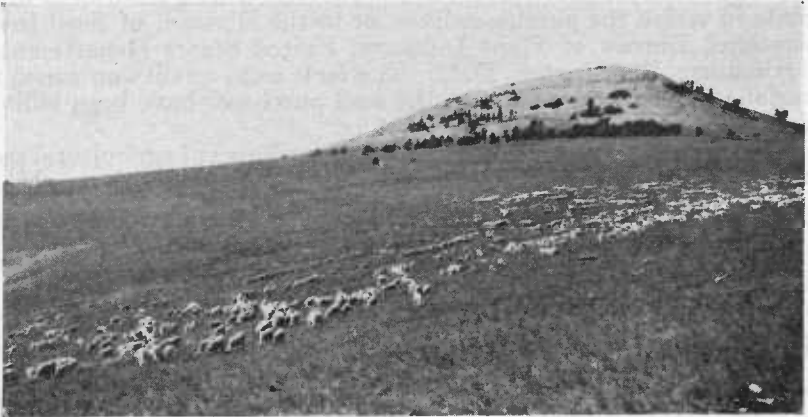


FIGURE 123.—The band spreading out in the early morning on clean feed

Comparison of the Two Systems

It was found that the sheep handled under the old system of close herding and returning to a permanent camp ground each night used 47 per cent more range than the sheep that were allowed to graze quietly and openly and bedded where night overtook them. (Fig. 124.)

The "blanket" system is especially adapted to the production of early maturing lambs. Under the old system sheep are likely to be dogged and jammed, and the lambs get little rest and little sleep, and are frequently separated from their mothers. When the sheep are allowed their freedom the lambs feed and rest naturally, grow much faster, are cleaner, more easily handled, and less likely to be crippled.

The average net gain per day of the lambs under the bedding-out system was 0.43 pound compared with 0.38 pound made under the old system, making 0.05 pound per day per head in favor of the new system. Lambs grazed under both systems were trailed to Alder, Mont., and sold at 5 cents per pound. At this figure the average gain

in value per day per head under the bedding-out system was \$0.0215, as compared with \$0.019 made under the old system, or a net gain in favor of the new system of \$0.0025 per head per day. On a flock of 1,000 lambs the net gain per day would be \$2.50, or for a grazing season of 90 days the net gain would be \$225 in favor of the bedding-out system. In other words, each lamb grazed under this system made a gain of 22½ cents per head more in a period of 90 days than did the lambs grazed under the old method.

Method of Handling Accounts for Increase

This increase in weight of the lambs grazed under the bedding-out system and the increased grazing capacity of the range can be attributed entirely to the method of handling the sheep, since (1) the ewes and lambs were all high-grade range sheep; (2) were grazed on practically the same kind of allotments; (3) were supplied with similar facilities for watering; and (4) were salted regularly and in sufficient quantities to keep their appetites normal.

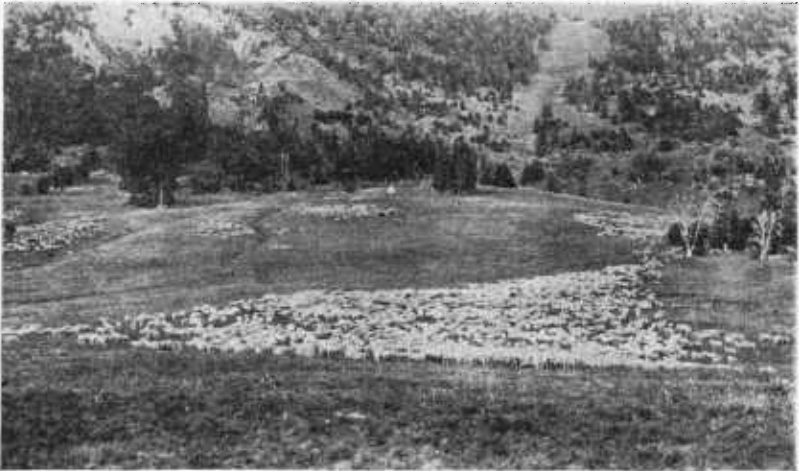


FIGURE 124.—Sheep ready to bed down near the herder's tepee

New System Costs No More

The amount of labor is practically the same under both systems. Time consumed in driving the sheep to and from an established bed ground is offset by the time consumed in moving the tepee to where the sheep are to be bedded down at night. Ordinarily in the Madison Forest a tepee and a saddle horse for moving it are required as extra equipment under the improved system.

A timbered range is as suitable for the blanket system as are open park areas. According to one herder, it is the only method of handling sheep in timbered range. The best results, he said, are obtained by turning sheep loose because they are more nervous in timber and the use of dogs increases this nervousness.

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