with a Bureau of Land Management permit only. The representative ranches having both Forest Service and Bureau of Land Management permits average 0.1 acres of cropland and pasture and 11.3 acres of rangeland per animal unit.

INVESTMENT - REPRESENTATIVE RANCHES

Investment in land of the representative ranches varies from \$5,636 to \$155,581 (table 5). This is an investment per animal unit of from \$68 to \$330. Land investment per animal unit decreases directly with the number of animal unit months of grazing permitted on Federal range. The representative ranches with Forest Service and yearlong grazing permits have the lowest per animal unit investment in land.

Investment in buildings and improvements of the representative ranches varies from \$2,515 to \$45,182. This is an investment of from \$40 to \$264 per animal unit. Buildings and improvements investment varies directly with ranch size, animal unit months in the Federal grazing permit, and the amount of cropland and pasture in the ranch. In general, investment in buildings and improvements per animal unit decreases directly with ranch size.

Investment in machinery and equipment for the representative ranches varies directly with ranch size and acreage of cropland and pasture, decreasing as ranch size increases, and increasing with cropland and pasture acreage.

The investment in livestock for the representative ranches varies between \$130 and \$160 per animal unit. This difference is primarily related to differences in the age and class composition of the livestock inventory, and to differences in livestock weights.

Total investment in land, buildings, improvements, machinery, equipment, and livestock varies among the representative ranches from \$21,280 to \$288,578. Total investment per animal unit varies from \$256 to \$722.

RELATIONSHIP OF TOTAL INVESTMENT TO THE SIZE OF THE FEDERAL GRAZING PERMIT AND THE NUMBER OF ANIMAL UNITS IN THE LIVESTOCK INVENTORY

In figure 3, average total investment per animal unit is plotted against the number of animal unit months in the Federal grazing permit per animal unit in the livestock inventory. The total investment per animal unit decreases in direct ratio to animal unit months of grazing per animal unit on Federal range. The relationship between ranch size in total animal units and total investment per animal unit is shown in figure 4. Total investment per animal unit is inversely correlated with animal unit months in the grazing permit and with ranch size.

A total investment per animal unit equation was derived from the relationships as shown in figures 3 and 4 as follows: $X_{1c} = 784.11 - 28.39 X_2 - 0.46X_3$.[3/] As the

3/ X_{1c} = total investment per animal unit; X_2 = animal unit months in the grazing permit per animal unit in the livestock inventory; X_3 = ranch size in animal units.