

## BENEFITS OF PROPER MANAGEMENT <sup>1/</sup>

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GOOD AFTERNOON, LADIES AND GENTLEMEN

I WANT TO TALK TO YOU TODAY ABOUT THE BENEFITS OF PROPER MANAGEMENT AS IT PERTAINS TO LIVESTOCK GRAZING--ABOUT WHAT IS PROPER GRAZING MANAGEMENT AND WHO BENEFITS FROM IT. I WILL SHOW YOU SLIDES ILLUSTRATING THE RESULTS OF SUCH GRAZING MANAGEMENT AND, HOPE I HAVE TIME TO ANSWER QUESTIONS YOU MAY HAVE.

THE RANGELANDS OF THE WEST MAKE UP ONE OF THE NATION'S IMPORTANT NATURAL RESOURCES. THEY COVER SOME 728 MILLION ACRES AND ENCOMPASS ABOUT 85 PERCENT OF ALL THE WILDLANDS IN THE WEST. MORE THAN HALF OF THIS AREA, ABOUT 52 PERCENT, IS PRIVATELY OWNED. ABOUT 30 PERCENT IS PUBLIC LAND MANAGED BY THE BUREAU OF LAND MANAGEMENT AND THE FOREST SERVICE; 7 PERCENT IS OWNED BY INDIAN TRIBES; AND THE OTHER 11 AND 12 PERCENT IS UNDER OTHER FEDERAL AND STATE AND LOCAL JURISDICTIONS.

THESE RANGES PRODUCE, NOT ONLY LIVESTOCK--MAINLY CATTLE AND SHEEP--BUT OTHER RENEWABLE RESOURCES THAT ARE VITAL TO LOCAL COMMUNITIES AND THE NATION. THESE INCLUDE WATER, WILDLIFE, FISH AND GAME, TIMBER AND ESTHETIC AND RECREATIONAL VALUES. THE NEED FOR ALL THESE RESOURCES INCREASES EACH DAY AS THE POPULATION GROWS. THE PRESSURE FOR GREATER PRODUCTION MOUNTS.

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THESE RESOURCES ALL STEM DIRECTLY OR INDIRECTLY FROM VEGETATION. THEIR YIELD AND QUALITY AND, IN FACT, THE QUALITY OF THE NATURAL ENVIRONMENT AS A WHOLE ARE DETERMINED MAINLY BY THE SPECIES COMPOSITION AND DENSITY OF THE PLANT COVER.

UNFORTUNATELY THE COVER HAS BEEN HEAVILY DETERIORATED BY LIVESTOCK GRAZING--MORE SPECIFICALLY, BY IMPROPER MANAGEMENT OF LIVESTOCK GRAZING. DESIRABLE PLANTS HAVE BEEN KILLED OUT AND REPLACED BY LESS DESIRABLE ONES. EXTENSIVE AREAS THAT WERE ONCE COVERED BY DESIRABLE HERBACEOUS PERENNIALS ARE NOW CROWDED WITH INFERIOR SHRUBS AND TREES, WEEDS AND ANNUALS. MOST SERIOUS, THE PLANT COVER HAS BEEN THINNED, CAUSING SOIL EROSION AND THE LOSS OF SOIL FERTILITY AND LAND PRODUCTION CAPACITY. ALL THIS HAS RESULTED IN HEAVY REDUCTION IN THE YIELD AND QUALITY OF RENEWABLE RESOURCES.

MOST OF THE DAMAGE TO THE WESTERN RANGE OCCURRED DURING THE PERIOD BETWEEN THE 1860'S AND THE EARLY 1900'S, WHEN MOST OF THE RANGE WAS PUBLIC LAND. THERE WERE NO LAWS GOVERNING GRAZING. THE GRASS WAS FREE. SO STOCKMEN GRAZED AS MANY LIVESTOCK ON THE RANGE AS THEY COULD AND FOR AS LONG AS POSSIBLE EACH YEAR, CONTINUOUSLY YEAR AFTER YEAR. EVENTUALLY THE GRASS GAVE OUT.

THE DEPLORABLE CONDITION OF THE WESTERN RANGE WAS BROUGHT TO THE ATTENTION OF CONGRESS IN 1936 IN A REPORT BY THE FOREST

SERVICE AND OTHER GOVERNMENTAL AGENCIES TITLED THE WESTERN RANGE, SENATE DOCUMENT 199. I QUOTE FROM THIS REPORT:

THE WESTERN RANGE HAS NEVER BEEN FULLY AND CLEARLY RECOGNIZED AS ONE OF OUR GREAT NATURAL RESOURCES...THE INTRINSIC VALUE AND IMPORTANCE OF THE RANGE RESOURCE TO THE WEST AND TO THE ENTIRE COUNTRY HAS BEEN SERIOUSLY UNDERESTIMATED OR ENTIRELY OVERLOOKED . . . THE GENERAL PUBLIC, MANY CONSERVATION-ISTS, AND EVEN MANY WESTERN STOCKMEN HAVE NO REAL APPRECIATION OF THE EXTENT TO WHICH THE RANGE HAS BEEN NEGELECTED AND ABUSED, WHAT THE CONSEQUENCES HAVE BEEN, AND HOW CONSEQUENCES HAVE ALREADY AFFECTED AND WILL IN THE FUTURE CONTINUE TO AFFECT HUMAN WELFARE.

THE MAJOR FINDING OF THIS REPORT--AT ONCE THE MOST OBVIOUS AND OBSCURE--IS RANGE DEPLETION SO NEARLY UNIVERSAL UNDER ALL CONDITIONS OF CLIMATE, TOPOGRAPHY, AND OWNERSHIP THAT THE EXCEPTIONS SERVE ONLY TO PROVE THE RULE.

IT IS PERFECTLY CLEAR . . . THAT THE RANGE RESOURCE--THE FORAGE AND SOIL ON WHICH IT GROWS--IS THE KEY TO ALL FORMS OF USE AND HENCE TO ALL THE SOCIAL AND ECONOMIC BENEFITS WHICH SHOULD FLOW FROM SUCH USES.

THE MOST URGENT RANGE RESOURCE PROBLEMS ARE TO STOP FURTHER DETERIORATION OF FORAGE AND SOIL AND START BOTH ON THE UPGRADE. THE ULTIMATE OBJECTIVE IS FULL RESTORATION AND PERMANENT MAINTENANCE IN FULL PRODUCTIVITY.

TODAY, SOME 40 YEARS LATER, THE LIVESTOCK GRAZING PROBLEM HAS STILL NOT BEEN ADEQUATELY RESOLVED AND RANGES ARE STILL DETERIORATING. LITTLE PROGRESS HAS BEEN MADE <sup>toward a solution</sup> BECAUSE OF THE  
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WIDESPREAD AND PERSISTENTLY HELD BELIEF THAT OVERSTOCKING IS THE MAIN CAUSE OF DETERIORATION AND THAT THE RANGE CAN BE MAINTAINED BY REDUCING STOCKING TO SOME MODERATE, LIGHT, OR SO-CALLED PROPER LEVEL. THIS CONCEPT FORMS THE BASIS FOR THE TYPE OF GRAZING THAT HAS BEEN PRACTICED AND IS STILL BEING PRACTICED ON MOST RANGES, BOTH PUBLIC AND PRIVATE, TODAY.

STOCKING HAS BEEN REDUCED TO MODERATE AND EVEN LIGHT LEVELS ON MANY RANGES, BUT DETERIORATION HAS CONTINUED. THE BEST LANDS, THE MOST PRODUCTIVE, DEEP SOIL AREAS SUCH AS MEADOWS, RIPARIAN STRINGERS, SWALES, FLATS AND GENTLY SLOPING LANDS WITHIN EASY REACH OF WATER HAVE BEEN THE MOST HEAVILY AFFECTED. LIVESTOCK TEND TO CONCENTRATE AND GRAZE CLOSELY ON SUCH SITES. WITH CONTINUOUS YEAR-IN-YEAR-OUT GRAZING, THE VEGETATION DETERIORATES. THE GRAZING PRESSURE ON SUCH AREAS CANNOT BE RELIEVED WITH ANY PRACTICAL STOCKING RATE, HOWEVER LIGHT, BECAUSE OF THE UNALTERABLE GRAZING HABITS OF LIVESTOCK.

WHAT THEN IS THE SOLUTION? THE VEGETATION ON SUCH AREAS AND ON THE RANGE AS A WHOLE CAN BE MAINTAINED UNDER GRAZING USE IF THE RANGE IS PERIODICALLY RESTED FROM USE. THIS PRACTICE WOULD ALLOW PLANTS THE OPPORTUNITY TO GROW AND REPRODUCE UNDISTURBED. THIS BASIC IDEA UNDERLIES THE PRACTICE OF REST-ROTATION GRAZING NOW BEING APPLIED ON MANY RANGES IN THE WEST. ITS EFFECTIVENESS IN PROMOTING AND MAINTAINING THE GROWTH OF VEGETATION IS THERE TO SEE.

I DO NOT HAVE TIME TO EXPLAIN REST-ROTATION GRAZING IN DETAIL TODAY. IT IS DESCRIBED IN ONE OF MY PUBLICATIONS--

PRINCIPLES OF REST-ROTATION GRAZING AND MULTIPLE-USE LAND MANAGEMENT-- A GOVERNMENT RELEASE ISSUED IN 1970. HOWEVER, I WANT TO EMPHASIZE THAT REST-ROTATION GRAZING IS DESIGNED SPECIFICALLY TO PROMOTE AND MAINTAIN THE GROWTH OF VEGETATION AND NOT TO PRODUCE LIVESTOCK, WILDLIFE, OR OTHER RENEWABLE RESOURCE. BUT THESE RESOURCES ARE ALL ENHANCED IF THE VEGETATION IS IMPROVED. LIVESTOCK STOCKING RATE AND THE SEASON OF GRAZING, FOR EXAMPLE, ARE NOT SPECIFIED IN A REST-ROTATION GRAZING FORMULA BUT ARE DETERMINED BY THE LAND MANAGER.

REST- ROTATION GRAZING IS DESIGNED TO PROVIDE PLANTS THE OPPORTUNITY TO PRODUCE FOOD AND SEED AND TO REPRODUCE. A GRAZING SYSTEM IS DEVELOPED FOR EACH RANGE SEPARATELY TO MEET THE GROWTH REQUIREMENTS OF THE PLANTS ON THE PARTICULAR RANGE. EACH GRAZING SYSTEM THEREFORE IS UNIQUE AND A PRODUCT OF THE PARTICULAR LAND MANAGER. THE SYSTEM OR PLAN OF GRAZING IS SPELLED OUT IN A FORMULA.

TO PRACTICE REST-ROTATION GRAZING, THE MANAGER DIVIDES A RANGE INTO PASTURES. EACH PASTURE IS GRAZED AND RESTED ACCORDING TO THE FORMULA OVER TIME INDEFINITELY. THE GROWTH REQUIREMENTS OF THE PLANTS ON MOST RANGES CAN BE MET WITH A THREE-PASTURE GRAZING FORMULA. ONLY ONE PASTURE IS GRAZED THROUGH THE ENTIRE SEASON. A SECOND ONE IS GRAZED ONLY AFTER SEED-RIPE TIME. AND A THIRD ONE IS NOT GRAZED AT ALL.

THE RATE OF IMPROVEMENT OF THE VEGETATION IS DETERMINED MAINLY BY THE CONDITION OF THE SOIL. COMPETITION BETWEEN PLANTS

FOR OCCUPANCY OF A SITE AND WEATHER ARE ALSO IMPORTANT FACTORS. WHERE SOIL EROSION HAS BEEN LIGHT, IMPROVEMENT MAY OCCUR QUICKLY IN A FEW YEARS. WHERE IT HAS BEEN HEAVY, IMPROVEMENT WILL BE SLOW, TAKING HUNDREDS OF YEARS AND LONGER.

SOMEONE ONCE WROTE: "A COMMON THING IS A GRASS-BLADE SMALL TROD BY THE FEET THAT PASS BUT ALL THE KINGS AND GIANTS TALL WORKING TILL DOOMSDAY SHADOW FALLS CAN'T MAKE A BLADE OF GRASS." BUT MAN CAN SET THE STAGE FOR THIS TO HAPPEN. THE CONDITION IS RESTING THE PLANT FROM USE.

DURING REST PERIODS, PLANTS CAN GROW AND REPRODUCE WITHOUT INTERFERENCE. VEGETATION AND SOIL DEVELOP TOWARD CLIMAX CONDITIONS, AND THE NATURAL ECOSYSTEM TENDS TO REESTABLISH NORMAL BALANCE.

RESTING IS UNIVERSALLY EFFECTIVE. SO, THEREFORE, IS REST-ROTATION GRAZING. IT WILL PRODUCE POSITIVE RESULTS ON ANY TYPE OF RANGE IN ANY CONDITION, ANYWHERE WHERE FACILITIES FOR CONTROLLING LIVESTOCK GRAZING CAN BE PUT ON THE GROUND.

RANGES, IN FACT, CAN BE REHABILITATED MORE RAPIDLY WITH REST-ROTATION GRAZING THAN WITH COMPLETE RESTING BECAUSE GRAZING HAS SOME BENEFICIAL EFFECTS. THE MOST IMPORTANT OF THESE IS TRAMPLING OF SEED INTO THE SOIL. THIS FACILITATES ESTABLISHMENT OF REPRODUCTION. STIFLING OLD GROWTH IS REMOVED FROM PLANTS THEREBY INCREASING VIGOR AND HERBAGE YIELD. SPROUTING AND ADVENTITIOUS GROWTH IS PROMOTED IN MANY WOODY SPECIES, THEREBY INCREASING HERBAGE PRODUCTION. BITTERBRUSH, A HIGHLY

PRIZED BROWSE FOR BIG GAME AND LIVESTOCK, IS BENEFITED GREATLY WITH PERIODIC CLOSE CROPPING BY CATTLE.

THE PUBLIC RANGE MANAGER IS OBLIGED TO MANAGE ON A MULTIPLE-USE, SUSTAINED-YIELD BASIS SO THE RENEWABLE RESOURCES ARE UTILIZED IN A BALANCE THAT BEST MEETS THE PRESENT AND FUTURE NEEDS OF THE AMERICAN PEOPLE. THE FOUNDATION FOR SUCH MANAGEMENT--VEGETATION--CAN BE ASSURED WITH REST-ROTATION MANAGEMENT OF LIVESTOCK GRAZING. LEFT FOR THE LAND MANAGER IS THE UNENVIABLE AND DIFFICULT JOB OF DECIDING ON THE MOST EQUITABLE ALLOCATION OF VEGETATION AND LAND AREA TO THE VARIOUS USES AND RESOURCES IN THE PUBLIC INTEREST.

THE BEST APPROACH TO ARRIVING AT A REALISTIC BASIS FOR SUCH DECISIONS IS TO FOLLOW THESE TWO STEPS: FIRST, ESTABLISH A SUITABLE REST-ROTATION GRAZING SYSTEM TO ENSURE MAINTENANCE OF THE VEGETATION AND SOIL; SECOND, TUNE THE GRAZING SYSTEM FOR OPTIMUM LIVESTOCK PRODUCTION. THE LATTER IS DONE BY STARTING INTO THE SYSTEM WITH THE STOCKING RATE AND SEASON OF GRAZING USED IN THE PAST AND THEN ADJUSTING THESE FACTORS TO PROPER LEVEL IN TIME, *on the basis of livestock responses.* WITH A THREE-PASTURE SYSTEM, THIS MAY TAKE 4 OR 5 YEARS OR A LITTLE LONGER. DURING THIS PERIOD THE MANAGER HAS OPPORTUNITY TO OBSERVE THE EFFECTS OF THE GRAZING SYSTEM ON THE VARIOUS RESOURCES AND USES. IN THIS WAY, HE IS PROVIDED A FACTUAL BASIS FOR DECIDING ON NEEDED ADJUSTMENTS. IT SHOULD BE OBSERVED THAT A SUBSTANTIAL PORTION OF THE VEGETATION AND LAND AREA ON A RANGE IS NOT GRAZED EACH YEAR IN A REST-ROTATION GRAZING SYSTEM AND SO IS AVAILABLE FOR OTHER THAN LIVESTOCK USE. IMBALANCES IN ALLOCATION OF RESOURCES ARE CORRECTED BY ADJUSTING STOCKING RATE, OR SEASON OF GRAZING OR BOTH OR BY FENCING OFF AREAS FROM LIVESTOCK GRAZING USE. DECISIONS

ON THESE MATTERS ARE NEVER FINAL BECAUSE OF EVERCHANGING RANGE CONDITIONS, AND DEMANDS AND NEEDS OF THE PUBLIC. SO DECISIONS CAN BE CHANGED PERIODICALLY OVER TIME FOR BEST RESULTS. GOOD MANAGEMENT CONSISTS OF DOING THE RIGHT THING AT THE RIGHT TIME IN VIEW OF EXISTING CONDITIONS AND CIRCUMSTANCES.

IN 1934, HUGH BENNET, FOUNDER OF THE SOIL CONSERVATION SERVICE, WARNED THAT "UNLESS EFFECTIVE EROSION-CONTROL MEASURES ARE WIDELY ADOPTED WITHOUT MUCH FURTHER DELAY, THE COUNTRY IS GOING TO HAVE ON ITS HANDS A DOMAIN OF WORN-OUT LAND . . .". BY THEN THE FOREST SERVICE HAD ALREADY INHERITED A LARGE ACREAGE OF HEAVILY WORN, IF NOT WORN OUT, RANGE LANDS; AND THE BUREAU OF LAND MANAGEMENT (THEN CALLED THE GRAZING SERVICE) WAS ABOUT TO DO SO. MOST PRESENT DAY PRIVATE RANGE LAND OWNERS ARE BURDENED WITH DETERIORATED LANDS. A LARGE ACREAGE OF ALL THESE LANDS IS STILL DETERIORATING. SOIL AND LAND PRODUCTION CAPACITY ARE BEING LOST. I URGE THAT REST-ROTATION GRAZING MANAGEMENT BE ESTABLISHED ON BOTH PUBLIC AND PRIVATE RANGES AS QUICKLY AS POSSIBLE TO ARREST FURTHER LOSS AND WEAKENING OF THE NATION.

THE ANSWER TO THE QUESTION THEN OF WHAT CONSTITUTES PROPER GRAZING, IS CLEARLY, REST-ROTATION GRAZING. WHO BENEFITS FROM IT? EQUALLY CLEARLY IS THE ANSWER: EVERYBODY.