

FOOTBALL STILL POPULAR SPORT

Dangers of Game Fail to Deter Players or Keep Away the Spectators.

GOOD SEASON IN SALT LAKE

RECORDS OF UNIVERSITY AND HIGH SCHOOL.

Football, the great American college sport, has had its troubles the past year, troubles which were not a great game, would quickly wipe it out of existence. From one end of the country to another a cry has gone up to stop the game and for every voice raised against the sport another equally as strong comes forth in defense of it. At one time during the season the president of the United States took a hand in the universal demand for reform or abolition, and he like all others who have made the sport a study, decided that football as played in the American colleges today should remain, but that the rules might be changed to lessen the chances of death and permanent injury among the players.

This year has witnessed the largest death toll in the history of the game, some twenty-five young men giving up their lives while the injured list runs up into the hundreds, the victims of the students' pastime. This has finally brought about a demand for the change in rules which even the rules committee did not overlook. As a result several changes have been recommended for next year. At the present time every large college in the east has its athletic board trying to devise ways and means of altering the game that its best features may be kept without the slaughter of dozens of players each year. That this will be done goes without saying. It will have to be done, for laws will be put in force prohibiting the game altogether. The rules committee realizes that the relief can therefore be expected as soon as this fall meets in the early spring.

In spite of the deaths due to the game, it becomes more popular each year, and the season just past witnessed the largest crowds in the history of the sport. Perhaps the greatest contest of the year, one in which there was the most interest, was the Chicago-Michigan game at Chicago, which was won by the latter team by a score of 2 to 0. This struggle is still fresh in the minds of the football public. It will long be remembered as the great game of the year 1905, and the first game in which the mighty Yost was ever defeated.

Game Popular in Salt Lake.

Salt Lake and Utah with the east have grown to like the sport, until now the big games in the fall are among the great sporting events of the year. Interest naturally centers in the University of Utah's team, as it is the strongest team in the state and the team which has taught the surrounding states to fear the name of Utah on a gridiron. The varsity, under Coach Maddock, is now recognized as one of the "big" teams of the Intermountain west and when football championships are disposed of this team is taken into consideration.

Utah's season has been a most successful one, but there is still room for improvement. During the fall, the best in the state, the best in Montana, the best in Wyoming, the best in Colorado, the big teams of Colorado learned what it was to face the hurry habit of Maddock. In all, eight teams faced the east bench boys, six of whom went down to defeat. Against the other two teams Utah was outwitted, by experienced football men and was therefore outclassed and lost. In each game Utah was weakened by the loss of some of its best players, but even with these men in line, the team would have gone up against aggregations so much physically superior that it is doubtful if the team could have won.

The one great drawback of the team the past season was the lack of good material. Although repeated warnings were given early in the season of this, apparently no attempt was made to help Maddock until it was too late. The lesson learned this season should probably will prove a valuable one to those in charge of Utah athletics, and if it is, Utah can hope for an all-western championship team next year. But in the high school class Utah walked away with about all the honors there were in sight. It was a Salt Lake team, and this aggregation can easily lay claim to the championship of the northwest without anyone disputing it. Along this line it is satisfying to know that its hardest game of the season was against another Utah team, the Ogden High school. This aggregation gave the Salt Lakers the strongest fight and along the same line of reasoning, while Utah had the best high school team in the northwest, it also had the next best.

Perhaps the West Siders' greatest victory was against the Butte High school. The latter team tied Spokane in a nothing to nothing game. Spokane tied Seattle in a nothing to nothing game. Seattle was the champion of the Puget Sound country, and Butte of Montana. Salt Lake in one decisive game slaughtered the Butte team, which easily gives the championship over the entire northwest. Another team which met an overwhelming defeat at the hands of the West Siders was the Pueblo (Colo.) team. This aggregation won the state championship of Colorado the year before, but fell before the Colorado Springs team this year by about the same score it was defeated by Salt Lake. This game puts Salt Lake on a par, at least, with the best team in Colorado, as Colorado Springs won the championship of that state, and there are many who believe the West Siders could have defeated this team had the occasion presented itself.

The Salt Lake High school owed its greatness to Coach D. A. Callahan, the father of athletics at the High school. Some claim that Callahan gave the High school the greatest team in its history this season, but whether this is so or not, he at least gave the school a team strong enough to win the highest honors for Utah that can possibly be obtained by a body of high school students.

With a complete change in the rules for next year, it is hard to say what the future of the sport will be in Utah. There is no reason to doubt that this state will be just as quick to grasp the new craze of "faux" as neighboring states, and at the close of next season when it comes time to dish out championships, in all probability Utah teams will have to be considered.



University of Utah Football Team, Utah Champions.

The above is the official picture of the University football team, and is published today for the first time. The players are: Back row, left to right: Sutton, Curtis, Harris, Barton, Boise, Hennessy. Middle row, left to right: Coach Maddock, Anderson, Ray, Peterson, Bennion, Russell, Manager Jensen. Bottom row, left to right: Pitt, Herbst, Verley, Scranton, Brown.

Experiment Station in Modern Agriculture

By Dr. P. A. Yoder, Director Utah Agricultural Experiment Station.

The time has arrived when the farmer is no longer content with following blindly the customs of his forefathers. He begins to look upon farming as a business and not merely as a mode of existence, to which he is necessarily driven because of the circumstance of his birth. He compares farming with other forms of employment and figures on capital invested, income and expenses, net profits or losses just as he would in other lines of business.

The result of an awakening to such views of farming has at first had the effect to drive many from the farm into mercantile, manufacturing, mining or some such business other than farming. They observed the drudgery of farm life, the lack of inspiration, and the small profits resulting. They possibly had engaged in it themselves in the same routine manner as was done by all the others, and after a hard year's work found that they had but little to show for their efforts. One and a half to three dollars a day, working eight or ten hours in a shop, in a mine, or on a railroad was a temptation to the ambitious young man which the drudgery of farm life could not counteract. This was the first stage in the evolution of ambition and thoughtfulness among the farming classes. It took many away from the rural communities and swelled the population of our cities.

A second stage in this development is now on hand. It has occurred to the farmer that the lack of the financial success with him is not because he happens to be a farmer instead of a manufacturer or a miner, but that it may be because he does not use the same common sense business principles that he would in a manufacturing or a mining industry. The manufacturer is forced, by the nature of his business, to be thoughtful and improve his method where possible, change the nature of his output if the market conditions demand it, and in it all watch the progress that is made in the arts and sciences which can be turned into profit in his business. Why should not the farmer be likewise thoughtful and watchful and why would not he watch the progress that is made in the arts and sciences which can be turned into profit in his business?

Farmer and Manufacturer.
After all, there is not fundamentally so much difference between farming and manufacturing as a business as may at first thought appear. He must select that branch of the industry for which he is best qualified, or better, he must qualify himself for that branch of the industry which he thinks he will like and which promises to be profitable. He has his raw material upon which he puts labor to convert it into new forms which command a higher price. Similarly the progressive farmer makes his selection of some particular branch of the farming industry. He qualifies himself by studying the best that is known on that line. He realizes that a little loss of the monotony of drudgery and a little more leisure to think and read pays in the long run and at the same time makes his occupation a delightful diversion. He sees as clearly as the manufacturer where his expenses are incurred and where his receipts come from, and he plans just as thoughtfully all along the line how to keep down the former and how to increase the latter. Most naturally by this mode of farming he frequently stumbles across the long which tax his ingenuity to its utmost to solve. It may occur to him that some new crop or new breed of stock may be more profitable in his locality, or that a different way of treatment of soil, crop or livestock may be more favorable. He may conceive that some lines of expenses might be reduced or avoided. He may encounter pests or diseases of his crops or his stock that baffles his attempts to overcome them. Thus at a hundred and one points in his work he will brush up against problems and difficulties which his limited time and training prevent him from solving. It might require months or years of careful investigations to solve them, and the busy farmer cannot afford this time, even if he had the knowledge and training which would be necessary. Besides, why should he stop his business to work out such questions when likely a thousand of his neighbors have the same difficulties at the same time and the results of an investigation?

Need for Specialists.

Here, then, comes the occasion for their joint employment of trained specialists to work out the problem for him and all his neighbors. As there are problems of various kinds coming continually, there is a need of specialists along various lines to be continually employed at their solution. These specialists should then be organized into one body to co-operate to the best advantage for the advancement of the agricultural science. They should be equipped with the necessary rooms, libraries and apparatus to carry on their investigations. As their labors are for the good of all their employment should be by the state or nation. Thus arises the "experiment stations" in modern agriculture of which

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our government was among the first to establish an elaborate system. The government has already realized that the appropriations made for this purpose are among the most profitable which the nation has made. There are so many people engaged in farming, and all other industries or occupations are so intimately associated with and dependent upon farming, that an advance in the agricultural science which helps the individual even a very little, will in the aggregate benefit the nation almost immeasurably. Contemplate for a moment what an increase in the wealth of the nation it would mean each year if, as a result of such investigations, each hen could be persuaded to lay one more egg a month; or each cow yield one more quart of milk a month; or each apple tree yield an additional bushel of sound apples; or each acre of wheat land yield one more bushel of wheat. It is not as a matter of sentiment, but as a purely business proposition that these agricultural experiment stations were established, and the results thus far give abundant justification.

Benefits to Utah.

In our own state, the station has been of immeasurable benefit to the public, and if some of its conclusions were more widely known and put into practice, it would to that extent further multiply its benefits. If the application of water to the several crops were more nearly in accord with what the experiments at this station show to be most advantageous, it would increase the average yield and prevent some of the alkali troubles. Doubtless where water is plentiful, there is far more damage done by over irrigation than by too little. Had more scientific methods been practiced in past years, much land that is now almost ruined might have been saved. We need not, however, despair because of the alkali. The experiments which the station is now carrying on in cooperation with the United States department of agriculture on alkali and water-logged lands give fair prospects of their successful reclamation.

Some of the more recent experiments in dry farming reveal the fact that large areas which lay as a barren waste are capable of producing valuable crops, and Utah's agricultural area is increasing in leaps and bounds as a consequence. The thoughtful experimenter in dry farming recognizes that there are a number of factors entering in the production of a crop, and that if any one is deficient, the crop will suffer. Its yield will then be determined primarily by this deficient one. Among these factors we mention soil, water, and light. A root system may develop; plant food constituent, especially potash, phosphates and nitrates in the soil; water, oxygen and carbon dioxide in the air; sunlight, and warmth. Places on the earth's surface may be pointed out where any of these can be shown to be the limiting factor. In this semi-arid region without irrigation it is evidently water. In fact all the other factors are unusually favorable. The soil is so rich that the remark is sometimes appropriately made that if they had this land in the exhausted regions of some of the older humid states, they could sell it as a fertilizer. The sunshine is so abundant that crops can mature in appreciably less time than in a more cloudy climate. It is easy to keep the soil in good tith so that the air can circulate and supply the roots with their needed oxygen.

Water Must Be Conserved.

It is evident, therefore, that if we wish to make any advances in dry farming, we must concern ourselves primarily with the water supply. As we cannot increase it, it is left for us to experiment on accumulating and economizing it. Even in the best of the Utah valleys there is not regularly enough rainfall annually to mature a good crop, therefore we adopt means of accumulating the water through two seasons and try to mature crops only on alternate years. We know that to produce a ton of dry plant substance the common crops require from 600 to 1,700 tons of water to pass through the plants from roots to leaves and out into the atmosphere. This is unavoidable, therefore we must look elsewhere to do the economizing. In the first place we must be sure to get all the rain or melted snow into the soil. For this the soil needs to be loosened up deep and allowed to lie rough during the winter and spring, while the rains fall or the snows melt. That there may be no loss by natural under-drainage, the soil should be four feet or more in depth before reaching any porous gravel bed. Besides drainage from the surface or under the surface, another great source of loss is by evaporation from the surface. This goes on the more rapidly the more frequently fresh quantities of air come in contact with the water in the soil. It therefore behooves us to protect the soil water from the circulating air as much as possible. We

must blanket the soil. Cotton blankets are to expensive, and so are straw or sawdust mulches. Dry loose soil has been found to be very effective; therefore we prepare a loose mulch of dry soil by frequent cultivation. Having thus bottled up the moisture, and put the cork on in the form of a soil mulch, we must look out for leaks. If the soil is deep there are none to fear from the bottom, but if weeds are allowed to grow, they will contribute the immense quantities of water and dry up the land very quickly. Therefore, we must keep the land free of weeds. By such precautions we are enabled to keep through the summer two-thirds to three-fourths of the moisture that is there in the spring. With the precipitation of another winter and spring, if it averages ten to fifteen inches annually, we can then mature the early maturing crops like wheat, rye, barley, early oats and thin stands of lucern and some grasses. There are even hopes of getting successful yields from some later crops as, e. g., corn of early varieties.

Care in Sowing.

With all these precautions, however, there is still a scarcity of water which we must take into account by also providing for a scarcity of plants. We must sow thin, else the thick stand of plants will extract all the moisture before they are nearly matured. This was very strikingly illustrated this year on some of the experimental arid farms, by the lucern and bromes grass plants. On the plots with a medium stand it dried out before it was high enough to cut, while on those with a very thin, scattering stand, it grew vigorously, even yielding large plants in the second crop.

By this system of farming, carried on on an extensive scale with the best types of labor saving machinery, dry farming on cheap land has been found just as profitable as irrigation farming on expensive land.

It remains to be seen from tests in various localities extending through a long series of years, what is the minimum average yearly rainfall that will still permit successful dry farming on the several types of soil.

In the matter of apple growing, it

has been demonstrated by this station for some localities that the orchards can be made manifold more profitable than is usually the case. By careful cultivation and pruning, and by the right manner of spraying, orchards which previously scarcely paid a meager rental on the land, are now a source of much profit. Similar results can doubtless be secured in other localities, though a difference in climatic conditions may necessitate further systematic experimenting in those localities to adapt the remedies to those regions.

Stock and Poultry Feeding.

Space will scarcely permit our entering upon a discussion of what has been done or is being done towards determining the most profitable manner of feeding cattle, sheep, hogs and poultry under the crop and market conditions that prevail here, or towards determining the prevalence of contagious diseases of cattle and the best means of combatting them. We cannot more than mention the improvements made in our poultry flocks by careful record keeping and selective breeding for egg production. New light has been thrown on the artificial incubation problem for a dry climate like this. It is hoped that hints have come out of the experiments as to the real nature of the difficulty so that future efforts can be directed along lines leading towards an ultimate solution.

The value of the work of an experiment station is not alone in the conclusions worked out, but largely also in steering us towards new problems which, when solved, will contribute in their turn to the prosperity of the state and the nation. Much value also attaches to the work of the experiment station in elaborating new methods or devising new apparatus for carrying on the investigations in the field or laboratory. A century ago the elaboration of accurate methods of chemical analysis opened the way for Justus von Liebig, Laves and Gilbert, and others half a century later to make their discoveries relative to the plant food in the soil and the function of fertilizers which revolutionized agriculture. The respiration calorimeters which the Connecticut and Pennsylvania stations have built give a means for investigating animal nutrition which can strike more nearly at the foundation of the subject. In a similar manner, but to a smaller degree, some of the apparatus or modes of investigation devised by this station now contribute to the means available for future experimenters for pursuing their research. We may note, for example, the trap nests used to secure egg records in poultry breeding experiments the frequent critical inspection of the growing fruit, and of the larvae or pupae of the codling moth on apple trees in order to learn the exact time the first brood ends its cycle of existence, the second brood starts, from which to determine the most opportune time to spray; a flume system for measuring and delivering water to small plots in irrigation investigations.

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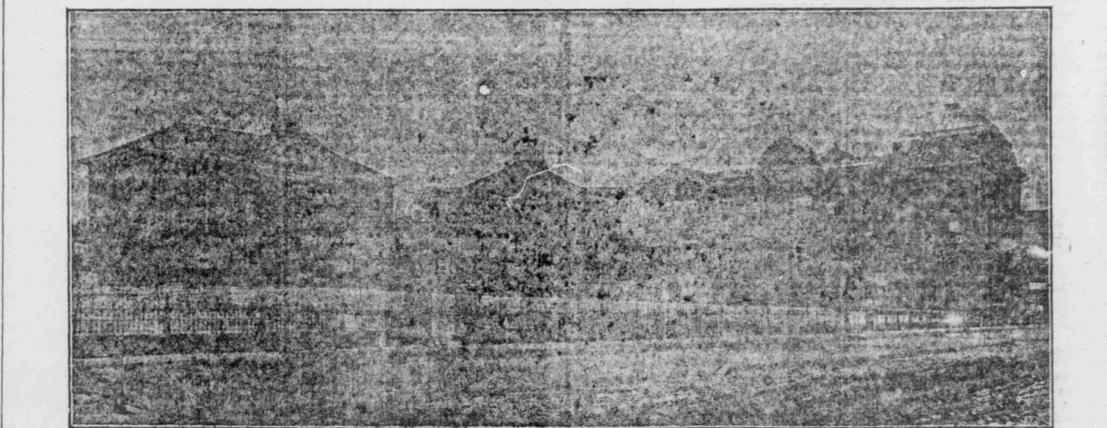
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An Open Letter

To Persons About to Attend a High School, a Normal School or a Business College.

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sets forth that the institution, while organized as university, giving or not exclusive at present high school instruction. Able professors (the teaching force now numbers fifty) engaged because of their ability to give university courses, are now teaching high school subjects. This insures to the student that a large portion of his work shall be under exceptionally strong and scholarly teachers. First-class physical, biological and chemical laboratories, well-equipped shops for woodwork and iron work; suite of rooms with dining and kitchen equipment, including coal and gas ranges, for domestic science; complete dressmaking department

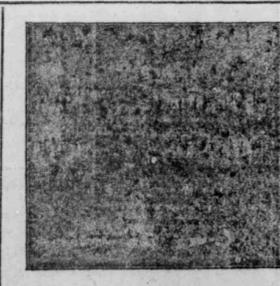
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