**[EZ Speech Writers No. 15153]**

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Speech for Kristin Shelby’s daughter for the 2016 CDE competition for high school students sponsored by Oklahoma State University’s Division of Agricultural Sciences and Natural Resources.

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LADIES AND GENTLEMEN . . . DISTINGUISHED JUDGES: GOOD [MORNING/AFTERNOON].

IT WAS JUST AFTER THE END OF WORLD WAR II, AND EVEN THOUGH TRACTOR PRODUCTION HAD COME BACK TO FULL SWING IN THE UNITED STATES, THERE WERE PLENTY OF FARMERS WHO WERE STILL USING HORSES TO PLOW THEIR FIELDS. SO THIS ONE AFTERNOON, A TRACTOR SALESMAN FROM THE FORD DEALERSHIP IN TOWN WAS DRIVING BY A FARM AND SAW FARMER JONES PLOWING HIS FIELD IN THIS WAY, AND HE THOUGHT TO HIMSELF: “NOW *THERE’S* A POTENTIAL CUSTOMER, BY GOLLY!” SO HE PARKED HIS CAR BY THE SIDE THE ROAD, HOPPED OVER THE FENCE, AND APPROACHED FARMER JONES.

“FARMER JONES,” HE SAID, I SEE YOU’RE STILL PLOWING YOUR FIELDS THE OLD-FASHIONED WAY, WITH THAT FINE OLD HORSE OF YOURS PULLING THAT PLOW IN FRONT OF YOU. BUT WHAT IF I TOLD YOU

THAT YOU COULD GET ALL YOUR PLOWING DONE IN ONE-TENTH THE TIME WITH ONE OF OUR FANTASTIC NEW FORD TRACTORS THAT’S GOT THE POWER OF ***50*** HORSES?”

“NOT INTERESTED,” SAID FARMER JONES, AND WAS ABOUT TO SIGNAL HIS HORSE TO KEEP MOVING ON.

“BUT OUR TRACTORS CAN NOT ONLY SAVE YOU TIME AND EFFORT,” IMPLORED THE SALESMAN, “THEY CAN BE EQUIPPED TO UNIFORMLY SEED THOSE FURROWS RIGHT AS YOU’RE TILLIN’ ‘EM!”

“THAT’S INTERESTING,” SAID FARMER JONES, “BUT I STILL AIN’T BUYIN’. OL’ FANNY HERE AND ME ARE DOIN’ JUST FINE WITHOUT NO HIGH-FALLUTIN MACHINERY.”

“BUT FARMER JONES,” THE SALESMAN ARGUED, GETTING MORE AND MORE DESPERATE TO SELL FARMER JONES A TRACTOR. “OUR TRACTORS CAN BE EQUIPPED WITH ALL KINDS OF ATTACHMENTS LIKE front-end loaders, belly mowers, row crop cultivators, corn pickers and corn planters, AND ALL KINDS OF MODERN MARVELS!”

“YOU KNOW, SON,” SAID FARMER JONES FINALLY, WIPING THE SWEAT OFF HIS FACE WITH HIS KERCHIEF, “I THINK THEM TRACTORS O’ YOURN ARE PRETTY DARNED MARVELOUS, THAT’S FOR SURE. BUT UNTIL YOU CAN SELL ME A TRACTOR THAT KIN LAY DOWN AS FINE A LINE OF HORSE MANURE AS OLD FANNY HERE CAN, I RECKON I’LL STICK TO THE OLD-FASHIONED WAY, JUST LIKE MY PAPPY DID IT AND MY GRAND-PAPPY A-FORE HIM.”

WELL . . . THERE AREN’T VERY MANY FARMER JONES’S LEFT IN THIS COUNTRY TODAY, AND MODERN FARMS — EVEN THE SMALLEST OF THEM — MAKE USE OF TECHNOLOGY THAT EVEN THAT FORD TRACTOR SALESMAN COULD HAVE DREAMED OF. POWERFUL TRACTORS OF ALL SORTS AND DESCRIPTIONS, SOME WITH ENGINS RATED AS HIGH AS 300 HORSEPOWER AND COSTING UPWARDS OF $175,000 . . . COMBINES THAT CAN HARVEST MORE THAN EIGHT TONS OF GRAIN A DAY . . . CULTIVATORS . . . TREE SHAKERS . . . SATELLITE IMAGERY . . . GPS NAVIGATION . . . DISEASE-RESISTANT SEEDS . . . BIO-FRIENDLY FERTILIZERS, AND MUCH, MUCH MORE: FARMING TODAY IS AS DEPENDENT ON SCIENCE AND TECHNOLOGY AS ANY OTHER BUSINESS YOU CAN THINK OF. AND THESE ADVANCES HAVE HAD A HUGE AND DRAMATIC IMPACT ON AGRICULTURE AND HOW FARMERS DO BUSINESS TODAY.

FOR EXAMPLE, AT THE TURN OF THE TWENTIETH CENTURY, THE AVERAGE FARM IN AMERICA RAN TO ABOUT 150 ACRES; TODAY, WITH THE ADVENT OF MECHANIZATION, THE TYPICAL FARMER CAN CULTIVATE ALMOST 450 ACRES. In the 1930s, before FARM machineRY BECAME wIDELY available, a farmer could harvest an average of maybe 100 bushels of corn by hand in a nine-hour day. WITH Today’s combines, THE MODERN FARMER can harvest 900 bushels of corn in an hour, and 100 bushels of corn in under seven minutes! In the 1960s A SINGLE farmer was able to produce enough food to feed about 26 people FOR A YEAR; Today, one farmer can produce food to feed 144.

SO THERE’S NO QUESTION THAT TECHNOLOGY HAS completely TRANSFORMED THE BUSINESS OF AGRICULATURE. BUT I WONDER IF THIS IS ALTOGETHER A GOOD THING? I WONDER IF THERE ISN’T A “DARK SIDE” to TECHNOLOGY IN THE FARMING BUSINESS? believe it or not, A LOT OF PEOPLE THINK that THERE IS.

FOR ONE THING, FARMING ISN’T FARMING ANYMORE, IT’S “AGRIBUSINESS,” AND THE SMALL FAMILY FARM IS ALMOST TOTALLY A THING OF THE PAST. IN 1935, ACCORDING TO THE U.S. DEPARTMENT OF AGRICULTURE, THERE WERE NEARLY SEVEN MILLION SMALL FAMILY FARMS IN THE UNITED STATES; BUT BY 2012, THAT NUMBER HAD DWINDLED TO JUST OVER TWO MILLION. MIND YOU, THE MAJORITY OF ALL FARMS IN AMERICA ARE *STILL* FAMILY-OWNED — IN OKLAHOMA, FAMILY FARMS MAKE UP 98 PERCENT OF ALL THE FARMS IN THE STATE. BUT THE AVRAGE ANNUAL GROSS INCOME OF THESE FARMS IS ONLY ABOUT $350,000, AND IN SOME YEARS, THAT’S HARDLY ENOUGH TO BREAK EVEN, LET ALONE MAKE A PROFIT.

ANOTHER IMPACT OF TECHNOLOGY ON AGRICULTURE IN AMERICA IS THAT, NATIONWIDE, THE 3 PERCENT OF FARMS THAT ARE *NOT* FAMILY-OWNED — THE ONES THAT ARE OPERATED BY HUGE AGRIBUSINESS

CORPORATIONS — PRODUCE MORE THAN 16 PERCENT OF AMERICA’S TOTAL AGRICULTURAL OUTPUT. THAT’S BECAUSE ALL OF THE ADVANCES IN IRRIGATION TECHNOLOGY, MECHANIZATION, AND DATA ANALYTICS HAVE ALLOWED VASTLY MORE ACREAGE TO BE PUT UNDER CULTIVATION, WITH FAR LESS MANPOWER, AND DRAMATICALLY HIGHER YIELDS. and higher volumes mean higher profits.

BUT TO ME, ONE OF THE *BIGGEST* NEGATIVE IMPACTS OF TECHNOLOGY ON AMERICAN AGRICULTURE IS THE TREMENDOUS AMOUNT OF CONTROVERSY IT HAS CREATED IN THE PUBLIC’S MIND.

NOW, I COME FROM A FARMING FAMILY GOING WAY BACK, SOME FIVE GENERATIONS, AND I DON’T THINK THAT ANY OF MY FOREBEARS, UP UNTIL MY OWN FATHER, MAYBE, EVER HEARD THE WORD “CONTROVERY” USED IN CONNECTION WITH WHAT THEY DID FOR A LIVING. THEY NEVER HEARD OF THINGS LIKE GENETICALLY MODIFIED CROP SEED . . . GROWTH-ENHANCING HORMONES . . . ANTIBIOTIC ADDITIVES FOR CATTLE FEED . . . THE ADVENT OF MAD-COW DISEASE, WHICH WASN’T EVEN DISCOVERED UNTIL 1986 . . . NITRATE POLLUTION OF THE GROUNDWATER, MUCH OF IT RESULTING FROM FERTILIZERS USED IN FARMING: NONE OF THESE ISSUES — ALL OF THEM THE RESULT OF ADVANCES IN SCIENCE AND TECHNOLOGY — WEREN’T ISSUES AT ALL FOR FARMERS BACK IN THE DAY.

AND I KNOW THAT MY GRANDFATHER WOULD BE ABSOLUTELY AMAZED — *ASTOUNDED*, IN FACT — TO LEARN THAT THERE ARE ACTUALLY ORGANIZATIONS IN AMERICA TODAY LIKE “THE FARM ANIMAL RIGHTS MOVEMENT” OR “THE ANIMAL WELFARE INSTITUTE” OR THE “NOT MILK” ORGANIZATION, OR THE “FOOD AND WATER WATCH” ORGANIZATION, AND MANY OTHER SUCH GROUPS WHOSE SOLE PURPOSE IS TO RAISE THE PUBLIC’S AWARENESS ABOUT TECHNOLOGY’S NEGATIVE IMPACT ON FARMING AND THE FOOD PRODUCTS OUR FARMS ARE PRODUCING, EVEN THOUGH, IN THE MAIN, THE PRODUCTS U.S. FARMER ARE PRODUCING TODAY ARE actually HEARTIER, HEALTHIER, AND MORE DELICIOUS THAN EVER BEFORE.

SO YES: TECHNOLOGY AND SCIENCE HAVE, WITHOUT A DOUBT, HAD A TREMENOUSLY POSITIVE IMPACT ON THE WORLD OF AGRICULTURE AND HAVE MADE FARMING MORE EFFICIENT AND, IN MOST CASES, HAVE HELPED FARMERS PRODUCE BETTER, LESS EXPENSIVE, AND MORE VARIED FOOD CROPS THAN EVER BEFORE IN MANKIND’S HISTORY.

BUT as important as technology has become to agriculture in america today, it’s ALSO CREATED A *TON* OF CONTROVERSY, SOME OF IT VERY HEATED AND SOME OF IT EVEN VIOLENT. AND LIKE IT OR NOT, FARMERS all AROUND THE COUNTRY ARE SMACK-DAB IN THE

MIDDLE OF THAT CONTROVERSY, AND WILL PROBABLY HAVE TO CONTINUE DEALING WITH IT FOR A VERY LONG TIME TO COME.

THANK YOU.

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The source for the statistics used in this speech come from (**1**) the United States Department of Agriculture’s Economic Research Service using data from the USDA’s National Agricultural Statistics Service, Census of Agriculture (as quoted at http://www.dasnr.okstate.edu); and (**2**) the Agriculture Council of America’s National AG Day website (http://www.agday.org/media/factsheet.php).