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## Federal Reserve Bank of Chicago - -

September 12, 1975

LAND AVAILABLE FOR CROP PRODUCTION has generated much concern in recent years as the issue of food shortages has risen to the fore. A recent report by the U.S. Department of Agriculture, however, suggests that the nation has an ample inventory of land that could potentially be converted to crop production given adequate economic incentives. Over and above the 361 million acres utilized for crops in 1974, an additional 266 million acres of high quality land could be utilized for crops if needed. Much of this "reserve" acreage, however, would require extensive capital expenditures in order to convert it to crop production. Prices of agricultural products and returns to landowners, therefore, would have to increase from current levels to encourage any significant conversion of this land to crop production.

Based on studies in the late sixties, estimates of the nation's total inventory of cropland-acreage associated with crops harvested, rotational pasture, crop failure, summer fallow, and idled land-ranges from 438 to 472 million acres. (The difference reflects inconsistencies in the definition of rotational pasture-which is included in cropland-and permanent pasture-which is noncropland.) Land utilized for crops in 1974-including cropland harvested as well as the acreage associated with crop failures and summer fallow-totaled 361 million acres. This was nearly 26 million short of the record high established in 1949 but 28 million acres above the near-record low indicated in the 1969 census. Virtually all of the increase in land used for crops since 1969 has been associated with the phasing out of supply management programs that have sharply lowered acreage idled. It's estimated that only 25 million acres of cropland were idled in 1974, about equal to the 1949 level but 26 million acres fewer than in 1969.

Any significant increase in acreage utilized for crops is likely to come from the conversion of adaptable noncropland as opposed to a more intensive use of the existing cropland base. Much of the remaining idled acreage no doubt reflects land held out of production for physical reasons-such as farmsteads, open drainage ditches, fence rows, etc. Moreover, and despite the difference in estimates of acreage devoted to rotational pastures, it's doubtful that much of the area presently devoted to such utilization could be more intensively cultivated in the future.

Estimates of potential new cropland are based on a 1967 survey that classified all land-except federally owned noncropland and urban areas-according to its agricultural production capability. The classification system assigned a number from I through VIII to a given land area to designate the degree of limitation the tract had for agricultural production. In general, only class I through III land can be extensively cultivated, although class IV land is acceptable for crops if under special management. The 1967 study identified a total of 631 million acres of class I-III land.


Existing and Potential Cropland

| Region | Land used for crops in 1974 | Potential cropland ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Forest | $\begin{aligned} & \text { Pasture } \\ & \text { range } \end{aligned}$ | Total |
|  |  | (million acres) |  |  |
| Northeast | 13.1 | 17.1 | 2.9 | 23.1 |
| Lake States | 36.8 | 19.9 | 4.2 | 27.8 |
| Corn Belt | 82.6 | 8.9 | 11.6 | 25.4 |
| Northern Plains | 89.8 | 1.3 | 22.3 | 25.8 |
| Appalachian | 17.9 | 19.3 | 6.7 | 28.3 |
| Southeast | 14.3 | 25.6 | 6.7 | 34.5 |
| Delta States | 17.3 | 19.7 | 7.0 | 27.7 |
| Southern Plains | 33.4 | 9.9 | 35.4 | 46.3 |
| Mountain | 35.1 | . 5 | 15.2 | 16.5 |
| Pacific | 20.6 | 2.5 | 5.0 | 9.1 |
| Alaska and Hawaii | 0.1 | 1.0 | 0.1 | 1.0 |
| Total | 361.1 | 125.6 | 117.1 | 265.5 |

[^0]Of this amount, 365 million acres was part of the existing cropland base. The remaining 266 million acres so classified constituted noncropland acreage, which represents the most probable source for future expansion in the cropland base.

Roughly one-half of the 266 million acres of class I-III noncropland are presently utilized as pasture and range land, while the other half represents forest. In terms of geographical areas a high proportion of the potential cropland is located in the Southern Plains (Texas and Oklahoma). An additional 51 million acres of such land is distributed among Corn Belt states and the Northern Plains. Combined, these three regional areas hold the most promise for land that could be converted to cultivation.

Obviously not all-and, indeed, probably very little-of the 266 million acres of class I-III noncropland is readily convertible to cultivation. The conversion process will largely hinge on the economic feasibility of developing the land for cultivation. Landowners will have to weigh the costs of developing the land in terms of the potential returns from agricultural products. Nevertheless, the large "reserve" acreage should be reassuring to those concerned about the land base for food production.

> Gary L. Benjamin Agricultural Economist

| Subject | Unit | Latest period | Value | Percent change from |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Prior period | Year ago |
| INDEX OF PRICES |  |  |  |  |  |
| Received by farmers | $1967=100$ | August | 187 | 0 | $+1$ |
| Crops | $1967=100$ | August | 201 | $+1.0$ | - 9 |
| Livestock | $1967=100$ | August | 179 | 0.6 | $+12$ |
| Paid by farmers | $1967=100$ | August | 187 | + 0.5 | + 8 |
| Production items | $1967=100$ | August | 192 | $+1.1$ | - 3 |
| Wholesale price index (all commodities) | $1967=100$ | July | 176 | $+1.2$ | + 9 |
| Foods | $1967=100$ | July | 185 | + 2.5 | $+12$ |
| Processed foods and feeds | $1967=100$ | July | 185 | + 2.7 | $+10$ |
| Agricultural chemicals | $1967=100$ | July | 210 | - 0.3 | $+61$ |
| Agricultural machinery and equipment | $1967=100$ | July | 169 | $+0.4$ | $+17$ |
| Consumer price index (all items) | $1967=100$ | July | 162 | + 1.1 | + 9 |
| Food at home | $1967=100$ | July | 180 | + 2.9 | $+12$ |
| CASH PRICES |  |  |  |  |  |
| Corn | dol. per bu. | August | 2.95 | $+8.5$ | - 12 |
| Soybeans | dol. per bu. | August | 5.80 | + 9.8 | - 23 |
| Wheat | dol. per bu. | August | 3.89 | +16.8 | - 8 |
| Sorghum | dol. per cwt. | August | 4.69 | $+10.3$ | - 8 |
| Oats | dol. per bu. | August | 1.44 | - 0.7 | - 7 |
| Steers and heifers | dol. per cwt. | August | 37.10 | - 8.9 | - 8 |
| Hogs | dol. per cwt. | August | 56.00 | $+3.5$ | + 56 |
| Milk, all sold to plants | dol. per cwt. | August | 8.47 | $+3.4$ | + 9 |
| Broilers | cents per lb. | August | 28.8 | - 4.9 | $+38$ |
| Eggs | cents per doz. | August | 50.5 | + 8.8 | + 6 |
| INCOME (seasonally adjusted annual rate) |  |  |  |  |  |
| Cash receipts from farm marketings | bil. dol. | 2nd Quarter | 88 | $+1.1$ | - 2 |
| Net realized farm income | bil. dol. | 2nd Quarter | 20 | $+2.5$ | - 12 |
| Nonagricultural personal income | bil. dol. | July | 1,199 | - 0.7 | + 7 |
| FARM FINANCE |  |  |  |  |  |
| Total deposits at agricultural banks ${ }^{1}$ | $1972-73=100$ | August | 138 | $+0.8$ | $+12$ |
| Time deposits | $1972 \cdot 73=100$ | August | 153 | $+1.6$ | $+18$ |
| Demand deposits | $1972-73=100$ | August | 114 | - 0.9 | + 2 |
| Total loans at agricultural banks ${ }^{1}$ | $1972-73=100$ | August | 144 | + 0.1 | +12 |
| Production credit associations |  |  |  |  |  |
| United States | mil. dol. | June | 10,712 | $+2.3$ | $+18$ |
| Seventh District states | mil. dol. | June | 1,826 | + 5.2 | + 25 |
| loans made: |  |  |  |  |  |
| - United States | mil. dol. | June | 1,208 | - 3.9 | $+26$ |
| Seventh District states | mil. dol. | June | 238 | + 3.4 | + 51 |
| Federal land banks |  |  |  |  |  |
| loans outstanding: |  |  |  |  |  |
| United States | mil. dol. | June | 14,938 | $+1.7$ | $+23$ |
| Seventh District states | mil. dol. | June | 2,729 | $+1.6$ | + 24 |
| new money loaned: |  |  |  |  |  |
| United States | mil. dol. | June | 306 | - 2.9 | $+7$ |
| Seventh District states | mil. dol. | June | 55 | - 19.1 | + 22 |
|  |  |  |  |  |  |
| Feeder cattle loans ${ }^{2}$ | percent | 2nd Quarter | 8.80 | - 1.1 | $+4$ |
| Farm real estate loans ${ }^{2}$ | percent | 2nd Quarter | 8.92 | 1.1 $-\quad 0.8$ | $+\quad 4$ $+\quad 5$ |
| Three-month Treasury bills | percent | 8/27-9/3 | 6.40 | - 1.8 | +30 -30 |
| Federal funds rate | percent | $8 / 27-9 / 3$ | $6.06$ | 1.8 $-\quad 2.7$ | - 48 |
| Government bonds (long-term) | percent | 8/27-9/3 | 8.44 | $-\quad 0.9$ $-\quad 0.9$ | - 48 |
| AGRICULTURAL TRADE |  |  |  |  |  |
| Agricultural exports | mil. dol. | June | 1,390 | - 7.1 | - 7 |
| Agricultural imports | mil. dol. | June | 827 | $+20.1$ | - 21 |
| FARM MACHINERY SALES |  |  |  |  |  |
| Farm tractors | units | June | 15,249 | - 6.4 | $+0$ |
| Combines | units | June | 3,826 | - 54.5 | +24 +2 |
| Balers | units | June | 6,166 | +275.9 | - 24 |

[^1]
[^0]:    ${ }^{1}$ Noncropland classed I through III.
    ${ }^{2}$ Total includes a small amount of land utilized for purposes other than forest and pasture/range.

[^1]:    ${ }^{1}$ Member banks in Seventh District having a large proportion of agricultural loans in towns of less than 15,000 population.
    ${ }^{2}$ Average of rates reported by district agricultural banks.

